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INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF RICARDO PLC

1. Our opinion is unmodified

We have audited the financial statements of Ricardo plc ("the Company") for the year ended 30 June 2023 which comprise the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of financial position, consolidated statement of changes in equity, consolidated cash flow statement, company statement of financial position, company statement of changes in equity, and the related notes, including the accounting policies in **note 1**.

In our opinion:

- the financial statements give a true and fair view of the state of the Group's and of the parent Company's affairs as at 30 June 2023 and of the Group's loss for the year then ended;
- the Group financial statements have been properly prepared in accordance with UK-adopted international accounting standards;
- the Parent Company financial statements have been properly prepared in accordance with UK accounting standards, including FRS 101 Reduced Disclosure Framework;and
- the financial statements 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 believe that the audit evidence we have obtained is a sufficient and appropriate basis for our opinion. Our audit opinion is consistent with our report to the audit committee.

We were first appointed as auditor by the shareholders on 15 November 2018. The period of total uninterrupted engagement is for the five financial years ended 30 June 2023.

We have fulfilled our ethical responsibilities under, and we remain independent of the Group in accordance with, UK ethical requirements including the FRC Ethical Standard as applied to listed public interest entities.

Apart from the matters noted below, we have not performed any non-audit services during the financial year ended 30 June 2023 or subsequently which are prohibited by the FRC Ethical Standard. During 2023 we identified that a KPMG member firm had provided foreign language translation services during the periods ending 30 June 2020 to 30 June 2023 to a group entity. The services, which have been terminated, were administrative in nature and did not involve any management decision-making or bookkeeping. The work in each case had no direct or indirect effect on Ricardo plc's consolidated financial statements.

In our professional judgment, we confirm that based on our assessment of the breach, our integrity and objectivity as auditor has not been compromised and we believe that an objective, reasonable and informed third party would conclude that the provision of these services would not impair our integrity or objectivity for any of the impacted financial years. The Audit Committee concurred with this view.

Overview

Materiality: group financial statements as a whole	£1.2m (2022: £1.1m) 5.1% (2022: 5%) of normalised profits and losses that make up Group profit before tax
Coverage	69% (2022: 76%) of normalised profits and losses that make up Group profit before tax

Key audit matters		**vs 2022**
Recurring risks	Impairment of A&I Established CGU (Goodwill, Intangibles & PPE)	◀▶
	New: Impairment of Rail Division CGU (Goodwill)	▲
	Valuation of defined benefit pension obligation	◀▶
	Revenue recognition of fixed price contracts	◀▶

2. Key audit matters: our assessment of risks of material misstatement

Key audit matters are those matters that, in our professional judgement, were of most significance in the audit of the financial statements and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by us, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. We summarise below the key audit matters, in decreasing order of audit significance, in arriving at our audit opinion above, together with our key audit procedures to address those matters and, as required for public interest entities, our results from those procedures. These matters were addressed, and our results are based on procedures undertaken, in the context of, and solely for the purpose of, our audit of the financial statements as a whole, and in forming our opinion thereon, and consequently are incidental to that opinion, and we do not provide a separate opinion on these matters.

	The risk	Our response
Carrying value of assets and impairment charge of A&I Established CGU (Goodwill, Intangibles & PPE) (Total impairment charge – £18.7m; 2022: £0.0m) *Refer to* **page 133** *(Audit Committee Report), page* **207** *(accounting policy) and page* **237** – **239** *(financial disclosures).*	**Forecast-based assessment:** Valuation of the fixed assets (Goodwill, Intangibles and PPE) associated with the A&I Established CGU is significant and at risk of recoverability at the reporting date due to reduced demand and recent trading losses. The estimated recoverable amount is subjective due to the inherent uncertainty involved in forecasting and discounting future cash flows. The effect of these matters is that, as part of our risk assessment, we determined that the value in use of the A&I Established CGU is based on key assumptions that resulted in the CGU being fully impaired. Changes in these key assumptions, whilst not sensitive, may result in a lower impairment charge, greater than our materiality for the financial statements as a whole.	We performed the detailed tests below rather than seeking to rely on any of the company's controls because the nature of the balance is such that we would expect to obtain audit evidence primarily through the detailed procedures described. Our procedures included: • **Our sector experience:** Evaluating cash flow assumptions used, in particular those relating to forecast revenue growth and profit margin; • **Model:** Assessing the reasonableness of the methodology used for calculation of the recoverable amount; • **Benchmarking assumptions:** Comparing the group's assumptions to externally derived data in relation to key inputs such as projected economic growth and discount rates; • **Sensitivity analysis:** Performing a sensitivity analysis on the assumptions noted above and considered reasonably possible changes in key inputs that had the greatest judgment and their impact on the valuation. This included consideration that reasonably possible changes in key assumptions would have reduced the level of impairment charged; • **Assessing transparency:** Assessing whether the group's disclosures about the sensitivity of the outcome of the impairment assessment to changes in key assumptions reflect the risks inherent in the recoverable amount of the CGU. **Our results** We concur with the group's conclusion that the full impairment of the CGU's fixed assets (goodwill – £5.2m; intangibles – £1.8m & PPE – £11.7m) of £18.7m to be acceptable (2022: Impairment charge of £nil – acceptable).

2. Key audit matters: our assessment of risks of material misstatement (continued)

	The risk	Our response
Impairment of Rail division CGU (Goodwill) (Carrying value of goodwill relating to the CGU – £44.4m; 2022: £46.2m) *Refer to page* **133** *(Audit Committee Report), page* **207** *(accounting policy) and page* **237** – **239** *(financial disclosures).*	**Forecast-based assessment:** Goodwill associated with the Rail CGU is significant and there is an increased risk of recoverability at the reporting date due to the sensitivity of key assumptions within the Group's forecast model. The estimated recoverable amount is subjective due to the inherent uncertainty involved in forecasting and discounting future cash flows. The effect of these matters is that, as part of our risk assessment, we determined that the value in use of Rail CGU assets have a high degree of estimation uncertainty, with a potential range of reasonable outcomes greater than our materiality for the financial statements as a whole, and possibly many times that amount. The financial statements (**note 15**) disclose the sensitivity estimated by the Group.	We performed the detailed tests below rather than seeking to rely on any of the company's controls because the nature of the balance is such that we would expect to obtain audit evidence primarily through the detailed procedures described. Our procedures included: • **Our sector experience:** Evaluating cash flow assumptions used, in particular those relating to forecast revenue growth and profit margin; • **Model:** Assessing the reasonableness of the methodology used for calculation of the recoverable amount; • **Benchmarking assumptions:** Comparing the group's assumptions to externally derived data in relation to key inputs such as projected economic growth and discount rates; • **Sensitivity analysis:** Reperforming the breakeven analysis on the key assumptions and the sensitivity disclosures over these assumptions disclosed in **note 15** to the financial statements; • **Assessing transparency:** Assessing whether the group's disclosures about the sensitivity of the outcome of the impairment assessment to changes in key assumptions reflect the risks inherent in the recoverable amount of the CGU. **Our results** We found the Group's conclusion that there is no impairment of the Rail Division CGU, and the related disclosures, to be acceptable (2022: n/a).
Group and parent Company: Valuation of defined benefit pension obligation (£92.0m; 2022: £111.9m) *Refer to page* **133** *(Audit Committee Report), page* **212** *(accounting policy) and page* **262** – **264** *(financial disclosures).*	**Subjective estimate:** A significant level of estimation is required in order to determine the valuation of the gross liability of the Defined Benefit Obligation. Small changes in the key assumptions (in particular, discount rates, inflation & mortality rates) can have a material impact on the gross liability. The effect of these matters is that, as part of our risk assessment, we determined that the valuation of the defined benefit obligation has a high degree of estimation uncertainty, with a potential range of reasonable outcomes greater than our materiality for the financial statements as a whole, and possibly many times that amount. The financial statements (**Note 34**) disclose the sensitivity estimated by the Group and Parent Company.	We performed the detailed tests below rather than seeking to rely on any of the company's controls because the nature of the balance is such that we would expect to obtain audit evidence primarily through the detailed procedures described. Our procedures included: • **Benchmarking assumptions:** We challenged key assumptions applied (discount rate, inflation rate, and mortality rate) with the support of our own actuarial specialists, including a comparison of key assumptions against external market data; • **Assessing base data:** We have confirmed the data used in the current year valuation is consistent with that prepared at the triennial valuation as at 31 March 2020. We used our actuarial specialists to challenge the methodology used to roll forward the results of the triennial valuation as at 5 April 2020 to 30 June 2023. • **Assessing transparency:** We considered the adequacy of the Group and Company's disclosures in respect of the sensitivity of the surplus to changes in key assumptions. **Our results** We found the valuation and presentation of the disclosure of the defined benefit pension obligation to be acceptable. (2022: acceptable)

	The risk	Our response
Revenue recognition on fixed price contracts (£216.9m; 2022: £198.5m – restated) *Refer to page* **133** *(Audit Committee Report), page* **203** – **206** *(accounting policy) and page* **224** *(financial disclosures).*	**Accounting application:** Fixed price contracts is an area which requires the largest allocation of senior team members in the audit, and which has a major impact on directing the efforts of the engagement team, due to the volume of contracts and the amount of the fixed price contracts revenue. For fixed price contracts the Group recognises the majority of revenue and profit on the stage of completion based on the proportion of contract costs incurred for the work performed to the balance sheet date, relative to the estimated total forecast costs of the contract at completion. The judgments and estimates impacting the recognition of revenue include: • The identification of distinct performance obligations. • Assessment of stage of completion and costs to complete • The recognition of variations A large part of the portfolio comprises contracts that individually have low estimation uncertainty. The highest value, highest risk, most technically complex and financially challenging contracts to deliver are categorised as 'Red Category 4' contracts, which are subject to more frequent and senior levels of management review. The financial statements (**note 1d**) disclose the range of possible financial outcomes estimated by the Group on 'Red Category 4' contracts.	Our procedures included: • **Control observation:** We attended the 'Red Category 4' review meetings in January and July 2023 at which performance of these contracts was discussed with the Chief Financial Officer, Group Financial Controller, Group Quality & Risk Director, and divisional Managing and Finance Directors; • **Test of detail:** We selected a sample of costs incurred in the year and agreed to supporting documentation which included, for example invoices and timesheets; • We inspected a sample of correspondence with customers and instances where contractual variations had arisen to inform our assessment of the revenue and costs recorded up to the balance sheet date. We also agreed the variations to relevant invoicing schedules and payment plans and the subsequent cash receipts, where possible; • **Analysis of comparisons:** We assessed the reasonableness of the Group's forecasts by comparing with the comparative forecasts and the actual financial performance for the current and prior years. Additionally, we challenged the Group's forecasts relating to the remainder of contracts through assessment of actual and planned contract milestones, inquiry of project teams, and analysis of, the forecasts based on total contract value and any related contract variations; • **Independent reperformance:** We recalculated the stage of completion on the basis of actual costs and the Group's latest forecast to inform our assessment of the appropriate amount of revenue and profit to recognise and compared this to the amounts recorded by the Group; • **Assessing transparency:** We considered the adequacy of the Group's disclosures about the degree of estimates involved in estimating the stage of completion for determining the revenue amounts for fixed price contracts; **Our results** We found revenue recognised on fixed price contracts to be acceptable (2022: acceptable).

3. Our application of materiality and an overview of the scope of our audit

Materiality for the group financial statements as a whole was set at £1.2m (2022: £1.1m), determined with reference to a benchmark of normalised group profit before tax from continuing operations, of which it represents 5.1% (2022: 5%).

We normalised profit before tax by adding back adjustments that do not represent the normal, continuing operations of the Group, for both 2023 and 2022. The items we adjusted for were exceptional acquisition related expenditure, asset purchases and disposals and other reorganisation costs as disclosed in **note 7**.

Materiality for the parent company financial statements as a whole was set at £0.5m (2022: £0.4m), which is the component materiality for the parent company determined by the group audit engagement team. This is lower than the materiality we would otherwise have determined with reference to company total assets, of which it represents 0.4% (2022: 0.2%).

3. Our application of materiality and an overview of the scope of our audit (continued)

In line with our audit methodology, our procedures on individual account balances and disclosures were performed to a lower threshold, performance materiality, so as to reduce to an acceptable level the risk that individually immaterial misstatements in individual account balances add up to a material amount across the financial statements as a whole. Performance materiality was set at 65% (2022: 75%) of materiality for the financial statements as a whole, which equates to £0.8m (2022: £0.9m) for the group and £0.4m (2022: £0.3m) for the parent company. We applied this percentage in our determination of performance materiality based on the level of identified misstatements and control deficiencies during the prior period.

We agreed to report to the Audit Committee any corrected or uncorrected identified misstatements exceeding £0.06m (2022: £0.05m), in addition to other identified misstatements that warranted reporting on qualitative grounds.

Of the group's 67 (2022: 68) reporting components, we subjected 7 (2022: 11) to full scope audits for group purposes and nil (2022: 3) to specified risk-focused audit procedures. The latter were not individually financially significant enough to require a full scope audit or specified risk-focused audit procedures that needed to be addressed for group purposes.

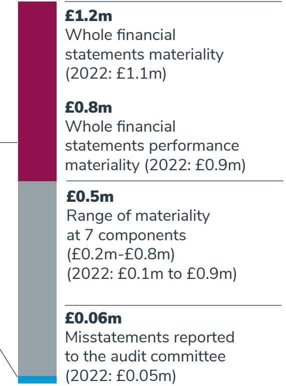
The components within the scope of our work accounted for the percentages illustrated opposite. The remaining 34% (2022: 15%) of total group revenue, 31% (2022: 24%) of group's normalised profit before tax and 37% (2022:22%) of total group assets is represented by 60 (2022: 54) reporting components, none of which individually represented more than 7.1% (2022: 5.5%) of any of total group revenue, group's normalised profit before tax or total group assets. For the residual components, we performed analysis at an aggregated group level to re-examine our assessment that there were no significant risks of material misstatement within these.

The scope of the audit work performed was predominately substantive as we placed limited reliance upon the Group's internal control over financial reporting.

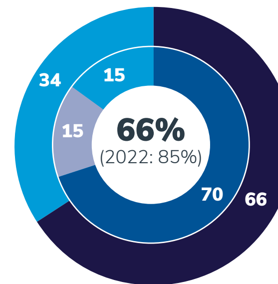
Normalised group profit before tax
£23.6m (2022: £21.0m)

- Normalised PBT
- Group materiality

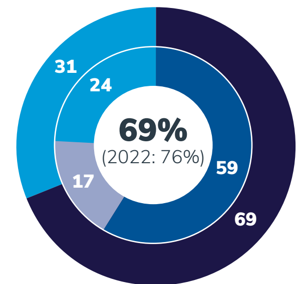
Group materiality
£1.2m (2022: £1.1m)



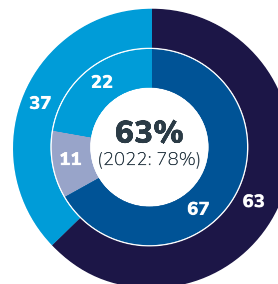
Group revenue



Group profit before tax



Group total assets



- Full scope for group audit purposes 2023
- Full scope for group audit purposes 2022
- Specified risk-focused audit procedures 2022
- Residual components

The Group team instructed component auditors as to the significant areas to be covered, including the relevant risks detailed above and the information to be reported back. The Group team approved the component materialities, which ranged from £0.2m to £0.8m (2022: £0.3m to £0.6m), having regard to the mix of size and risk profile of the Group across the components. The work on 2 of the 7 in-scope components (2022: 4 of the 14 components) was performed by component auditors and the rest, including the audit of the parent company, was performed by the Group team. The Group team performed procedures on the items excluded from normalised group profit before tax.

The Group team visited 1 (2022: 1) component location in order to assess the audit risk and strategy. In addition the Key audit partner for the UK components was a member of the group engagement team, involved in group risk and strategy discussions. During the year, 1 overseas site visit was conducted by the Group team, with all other in-scoped components audited by the Group team. At these meetings, the findings reported to the Group team were discussed in more detail, and any further work required by the Group team was then performed by the component auditor.

4. Going concern

The directors have prepared the financial statements on the going concern basis as they do not intend to liquidate the Group or the Company or to cease their operations, and as they have concluded that the Group's and 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 their 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").

We used our knowledge of the Group, its industry, and the general economic environment to identify the inherent risks to its business model and analysed how those risks might affect the Group's and Company's financial resources or ability to continue operations over the going concern period. The risks that we considered most likely to adversely affect the Group's and Company's available financial resources and metrics relevant to debt covenants over this period were:

- challenges impacting the automotive industry with a potential decline in trading results for the A&I Established CGU.

We considered whether these risks could plausibly affect the liquidity or covenant compliance in the going concern period by assessing the Directors' sensitivities over the level of available financial resources and covenant thresholds indicated by the Group's financial forecasts taking account of severe, but plausible adverse effects that could arise from these risks individually and collectively.

Our procedures also included:

- Critically assessing assumptions in base case and downside scenarios relevant to liquidity and covenant metrics, and overlaying knowledge of the entity' plans based on approved budgets and our knowledge of the entity and the sector in which it operates.
- We also compared past budgets to actual results to assess the directors' track record of budgeting accurately.
- We inspected the confirmation from the lender of the level of committed financing, and the associated covenant requirements.
- Our procedures also included an assessment of whether the going concern disclosure in note 1 to the financial statements gives a complete and accurate description of the Directors' assessment of going concern.

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;
- 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 Group's or Company's ability to continue as a going concern for the going concern period;
- we have nothing material to add or draw attention to in relation to the directors' statement in note 1 to the financial statements on the use of the going concern basis of accounting with no material uncertainties that may cast significant doubt over the Group and Company's use of that basis for the going concern period, and we found the going concern disclosure in **note 1** to be acceptable; and
- the related statement under the Listing Rules set out on **page 176** is materially consistent with the financial statements and our audit knowledge.

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 Group or the Company will continue in operation.

5. 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, the audit committee, internal audit and inspection of policy documentation as to the Group's high-level policies and procedures to prevent and detect fraud, including the internal audit function, and the Group's channel for "whistleblowing", as well as whether they have knowledge of any actual, suspected or alleged fraud;
- Considering remuneration incentive schemes and performance targets for management and Directors including the EPS target for management remuneration;
- Using analytical procedures to identify any unusual or unexpected relationships, and
- Reading Board and Audit Committee minutes.

We communicated identified fraud risks throughout the audit team and remained alert to any indications of fraud throughout the audit. This included communication from the group to full scope component audit teams of relevant fraud risks identified at the Group level and request to full scope component audit teams to report to the Group audit team any instances of fraud that could give rise to a material misstatement at group.

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 Group and component 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. We did not identify any additional fraud risks, other than those included above.

We performed procedures including:

- Identifying journal entries to test for all full scope components based on risk criteria and comparing the identified entries to supporting documentation. These included those posted to cash and revenue where applicable to check for unexpected journal pairings.
- agreeing of a sample of timesheet entries recorded directly with employees to confirm the 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.

As the Group is regulated, our assessment of risks involved gaining an understanding of the control environment including the entity's procedures for complying with regulatory requirements.

We communicated identified laws and regulations throughout our team and remained alert to any indications of noncompliance throughout the audit. This included communication from the group to full scope component audit teams of relevant laws and regulations identified at the Group level, and a request for full scope component auditors to report to the group team any instances of non-compliance with laws and regulations that could give rise to a material misstatement at the Group level.

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

Firstly, the Group is subject to laws and regulations that directly affect the financial statements including financial reporting legislation (including related companies legislation), distributable profits legislation, taxation legislation and pensions 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 Group 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, road and motor vehicle regulations, competition laws, regulatory capital and liquidity and certain aspects of company legislation recognising the regulated nature of the Group'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 directors and other management 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.

6. We have nothing to report on the other information in the Annual Report

The directors are responsible for the other information presented in the Annual Report together with the financial statements. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except as explicitly stated below, any form of assurance conclusion thereon.

Our responsibility is to read the other information 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 other information.

Strategic report and directors' report

Based solely on our work on the other information:

- 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.

Directors' remuneration report

In our opinion the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

Disclosures of emerging and principal risks and longer-term viability

We are required to perform procedures to identify whether there is a material inconsistency between the directors' disclosures in respect of emerging and principal risks and the viability statement, and the financial statements and our audit knowledge.

6. We have nothing to report on the other information in the Annual Report (continued)

Based on those procedures, we have nothing material to add or draw attention to in relation to:

- the directors' confirmation within the viability statement page 108 that they have carried out a robust assessment of the emerging and principal risks facing the Group, including those that would threaten its business model, future performance, solvency and liquidity;
- the Principal risks and uncertainties disclosures describing these risks and how emerging risks are identified, and explaining how they are being managed and mitigated; and
- the directors' explanation in the viability statement of how they have assessed the prospects of the Group, over what period they have done so and why they considered that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We are also required to review the viability statement, set out on page 108 under the Listing Rules. Based on the above procedures, we have concluded that the above disclosures are materially consistent with the financial statements and our audit knowledge.
Our work is limited to assessing these matters in the context of only the knowledge acquired during our financial statements audit. 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 absence of anything to report on these statements is not a guarantee as to the Group's and Company's longer-term viability.

Corporate governance disclosures

We are required to perform procedures to identify whether there is a material inconsistency between the directors' corporate governance disclosures and the financial statements and our audit knowledge.

Based on those procedures, we have concluded that each of the following is materially consistent with the financial statements and our audit knowledge:

- the directors' statement that they consider that the annual report and financial statements taken as a whole is fair, balanced and understandable, and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy;
- the section of the annual report describing the work of the Audit Committee, including the significant issues that the audit committee considered in relation to the financial statements, and how these issues were addressed; and
- the section of the annual report that describes the review of the effectiveness of the Group's risk management and internal control systems.

We are required to review the part of the Corporate Governance Statement relating to the Group's compliance with the provisions of the UK Corporate Governance Code specified by the Listing Rules for our review. We have nothing to report in this respect.

7. We have nothing to report on the other 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 by the parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent Company financial statements and the part of the Directors' Remuneration Report to be audited 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.

8. Respective responsibilities

Directors' responsibilities

As explained more fully in their statement set out on **page 178**, the directors are responsible for: the preparation of the financial statements including 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 Group and parent 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 Group or the parent 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 Company is required to include these financial statements in an annual financial report prepared using the single electronic reporting format specified in the TD ESEF Regulation. This auditor's report provides no assurance over whether the annual financial report has been prepared in accordance with that format.

9. 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.

JEREMY HALL (SENIOR STATUTORY AUDITOR)
for and on behalf of KPMG LLP,
Statutory Auditor

Chartered Accountants
15 Canada Square
London
E14 5GL

13 September 2023

GROUP PRIMARY STATEMENTS

CONSOLIDATED INCOME STATEMENT
FOR THE YEAR ENDED 30 JUNE

	Note	2023 Underlying £m	2023 Specific adjusting items(**) £m	2023 Total £m	2022 – Restated* Underlying £m	2022 – Restated* Specific adjusting items(**) £m	2022 – Restated* Total £m
Continuing operations							
Revenue	6	445.2	–	445.2	380.2	–	380.2
Cost of sales		(318.9)	–	(318.9)	(260.7)	–	(260.7)
Gross profit		126.3	–	126.3	119.5	–	119.5
Administrative expenses		(91.7)	(35.9)	(127.6)	(90.8)	(11.8)	(102.6)
Impairment losses on trade receivables and contract assets	23	(1.8)	–	(1.8)	(1.2)	–	(1.2)
Other income		1.2	–	1.2	0.5	–	0.5
Operating profit/(loss)	4	34.0	(35.9)	(1.9)	28.0	(11.8)	16.2
Finance income		1.0	–	1.0	0.6	–	0.6
Finance costs		(7.1)	–	(7.1)	(4.4)	–	(4.4)
Net finance costs	10	(6.1)	–	(6.1)	(3.8)	–	(3.8)
Profit/(loss) before taxation		27.9	(35.9)	(8.0)	24.2	(11.8)	12.4
Income tax (expense)/credit	12	(7.3)	3.3	(4.0)	(6.5)	2.3	(4.2)
Profit/(loss) from continuing operations		20.6	(32.6)	(12.0)	17.7	(9.5)	8.2
Discontinued operation							
Profit from discontinued operation, net of tax	3	0.4	6.4	6.8	1.7	(1.3)	0.4
Profit/(loss) for the year		21.0	(26.2)	(5.2)	19.4	(10.8)	8.6
Profit/(loss) attributable to:							
Continuing operations							
– Owners of the parent		20.4	(32.6)	(12.2)	17.7	(9.5)	8.2
– Non-controlling interests	32	0.2	–	0.2	–	–	–
		20.6	(32.6)	(12.0)	17.7	(9.5)	8.2
Discontinued operation							
– Owners of the parent		0.4	6.4	6.8	1.7	(1.3)	0.4
Total							
–Owners of the parent		20.8	(26.2)	(5.4)	19.4	(10.8)	8.6
– Non-controlling interests	32	0.2	–	0.2	–	–	–
		21.0	(26.2)	(5.2)	19.4	(10.8)	8.6

Earnings per share – basic and diluted (Note 8)	2023 pence	2022 pence
(Loss)/earnings per share	(8.7)	13.8
Underlying earnings per share	33.4	31.2
(Loss)/earnings per share from continuing operations	(19.3)	13.2
Earnings per share from discontinued operation	10.9	0.6

* Previously certain costs, such as engineering software licenses and subscriptions and running costs related to testing and manufacturing facilities, have been allocated to administrative costs. These costs have been allocated to cost of sales in the current year as they are considered to directly relate to the delivery of revenue. Comparative amounts have been restated to allocate the costs on a consistent basis. As a result, cost of sales have increased by £10.0m, impairment losses on trade receivables and contract assets have increased by £1.2m, and administrative expenses have reduced by £11.2m. There is no impact on profit for the year or EPS.

** 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. See Notes 2 and 7.

The notes on pages 197 to 270 form an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 30 JUNE

	Note	2023 £m	2022 £m
(Loss)/profit for the year		**(5.2)**	8.6
Other comprehensive (expense)/income			
Items that will not be reclassified to profit or loss:			
Remeasurements of the defined benefit pension scheme	34	**(5.0)**	5.2
Deferred tax on remeasurements of the defined benefit pension scheme	21	**1.2**	(1.6)
Total items that will not be reclassified to profit or loss		**(3.8)**	3.6
Items that are, or may be, subsequently reclassified to profit or loss:			
Currency translation on foreign currency net investments		**(6.4)**	6.5
Reclassification of foreign currency differences on disposal of foreign operation		**(0.9)**	–
Total items that may be subsequently reclassified to profit or loss		**(7.3)**	6.5
Total other comprehensive (expense)/income for the year (net of tax)		**(11.1)**	10.1
Total comprehensive (expense)/income for the year		**(16.3)**	18.7
Comprehensive (expense)/income attributable to:			
– Owners of the parent		**(16.5)**	18.7
– Non-controlling interests	32	**0.2**	–
		(16.3)	18.7

The notes on pages 197 to 270 form an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE

	Note	2023 £m	2022 £m
Assets			
Non-current assets			
Goodwill	15	96.1	90.6
Other intangible assets	16	35.4	23.1
Property, plant and equipment	17	35.3	47.0
Right-of-use assets	18	20.7	18.3
Retirement benefit surplus	34	12.6	15.2
Other receivables	23	2.4	2.5
Deferred tax assets	21	8.5	9.0
		211.0	205.7
Current assets			
Inventories	22	29.5	21.0
Trade, contract and other receivables	23	153.5	128.7
Derivative financial assets	27	2.3	0.8
Current tax assets		2.7	3.6
Cash and cash equivalents	25	49.8	49.4
Assets held for sale	19	–	9.6
		237.8	213.1
Total assets		448.8	418.8
Liabilities			
Current liabilities			
Borrowings	25	12.7	11.2
Lease liabilities	18	5.7	5.0
Trade, contract and other payables	24	105.0	78.2
Current tax liabilities		2.6	4.2
Derivative financial liabilities	27	1.0	5.1
Provisions	20	2.6	5.1
Liabilities directly associated with the assets held for sale	19	–	3.4
		129.6	112.2
Net current assets		108.2	100.9
Non-current liabilities			
Borrowings	25	99.2	74.7
Lease liabilities	18	19.4	18.3
Trade, contract and other payables	24	4.8	–
Deferred tax liabilities	21	15.5	12.7
Provisions	20	3.7	3.3
		142.6	109.0
Total liabilities		272.2	221.2
Net assets		176.6	197.6
Equity			
Share capital	29	15.6	15.6
Share premium	29	16.8	16.8
Other reserves	30	37.2	44.5
Retained earnings	31	106.6	120.5
Equity attributable to owners of the parent		176.2	197.4
Non-controlling interests	32	0.4	0.2
Total equity		176.6	197.6

The notes on pages 197 to 270 form an integral part of these consolidated financial statements. Approved by the Board of Ricardo plc on 12 September 2023 and signed on its behalf by:

GRAHAM RITCHIE
CHIEF EXECUTIVE OFFICER

IAN GIBSON
CHIEF FINANCIAL OFFICER

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 30 JUNE

	Note	Attributable to owners of the parent					Non-controlling interests £m	Total equity £m
		Share capital £m	Share premium £m	Other reserves £m	Retained earnings £m	Total £m		
At 1 July 2021		15.6	16.8	38.0	112.2	182.6	0.2	182.8
Profit for the year		–	–	–	8.6	8.6	–	8.6
Other comprehensive income for the year		–	–	6.5	3.6	10.1	–	10.1
Total comprehensive income for the year		–	–	6.5	12.2	18.7	–	18.7
Equity-settled transactions	35	–	–	–	1.6	1.6	–	1.6
Purchases of own shares to settle awards		–	–	–	(0.2)	(0.2)	–	(0.2)
Tax relating to share option schemes	21	–	–	–	(0.3)	(0.3)	–	(0.3)
Ordinary share dividends	9	–	–	–	(5.0)	(5.0)	–	(5.0)
At 30 June 2022		15.6	16.8	44.5	120.5	197.4	0.2	197.6
At 1 July 2022		**15.6**	**16.8**	**44.5**	**120.5**	**197.4**	**0.2**	**197.6**
Loss for the year		**–**	**–**	**–**	**(5.4)**	**(5.4)**	**0.2**	**(5.2)**
Other comprehensive expense for the year		**–**	**–**	**(7.3)**	**(3.8)**	**(11.1)**	**–**	**(11.1)**
Total comprehensive (expense)/income for the year		**–**	**–**	**(7.3)**	**(9.2)**	**(16.5)**	**0.2**	**(16.3)**
Equity-settled transactions	35	**–**	**–**	**–**	**1.4**	**1.4**	**–**	**1.4**
Tax relating to share option schemes	21	**–**	**–**	**–**	**0.7**	**0.7**	**–**	**0.7**
Purchases of own shares to settle awards		**–**	**–**	**–**	**(0.1)**	**(0.1)**	**–**	**(0.1)**
Ordinary share dividends	9	**–**	**–**	**–**	**(6.7)**	**(6.7)**	**–**	**(6.7)**
At 30 June 2023		**15.6**	**16.8**	**37.2**	**106.6**	**176.2**	**0.4**	**176.6**

The notes on pages 197 to 270 form an integral part of these consolidated financial statements.

CONSOLIDATED CASH FLOW STATEMENT
FOR THE YEAR ENDED 30 JUNE

	Note	2023 £m	2022 £m
Cash flows from operating activities			
(Loss)/profit before taxation		(0.1)	13.2
Adjustments for:			
– Share-based payments	35	1.3	1.3
– Unrealised foreign exchange losses/(gains)	27	1.2	(1.0)
– Losses on disposal of property, plant and equipment	4	0.7	0.1
– Gains on disposal of discontinued operation	3	(7.4)	–
– Net finance costs	10	6.1	3.8
– Depreciation, amortisation and impairment	4	37.4	25.1
Defined benefit pension scheme payments in excess of past service costs	34	(1.8)	(3.0)
Operating cash flows before movements in working capital		37.4	39.5
Changes in:			
– Inventories	22	(9.0)	(3.6)
– Trade, contract and other receivables	23	(27.9)	4.6
– Trade, contract and other payables	24	27.7	8.5
– Provisions	20	(2.0)	0.9
Cash generated from operations	2	26.2	49.9
Net interest paid		(7.5)	(3.5)
Income tax paid		(4.6)	(2.8)
Net cash generated from operating activities		14.1	43.6
Cash flows from investing activities			
Acquisitions of subsidiaries, net of cash acquired	14	(24.5)	(9.9)
Purchases of property, plant and equipment	17	(4.9)	(6.1)
Proceeds from disposal of property, plant and equipment		–	0.1
Proceeds from sale of discontinued operation, net of cash disposed	3	13.1	0.1
Fees in relation to sale of discontinued operation	3	(0.8)	–
Purchases of intangible assets and capitalised development costs	16	(5.7)	(8.0)
Net cash used in investing activities		(22.8)	(23.8)
Cash flows from financing activities			
Purchases of own shares to settle awards		(0.2)	(0.2)
Payments to settle derivatives		(4.2)	–
Principal element of lease payments	18	(5.1)	(4.6)
Proceeds from borrowings	25	128.0	13.0
Repayment of borrowings	25	(103.0)	(15.0)
Dividends paid to shareholders	9	(6.7)	(5.0)
Net cash generated from/(used in) financing activities		8.8	(11.8)
Effect of exchange rate changes on cash and cash equivalents		(2.3)	1.9
Net (decrease)/increase in cash and cash equivalents	25	(2.2)	10.1
Net cash and cash equivalents at 1 July		39.4	29.3
Net cash and cash equivalents at 30 June		37.2	39.4
At 1 July			
Cash and cash equivalents		49.4	42.0
Cash included in disposal group held-for-sale		1.1	–
Bank overdrafts		(11.1)	(12.7)
Net cash and cash equivalents at 1 July		39.4	29.3
At 30 June			
Cash and cash equivalents	25	49.8	49.4
Cash included in disposal group held for sale	25	–	1.1
Bank overdrafts	25	(12.6)	(11.1)
Net cash and cash equivalents at 30 June		37.2	(39.4)

The notes on pages 197 to 270 form an integral part of these consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Principal accounting policies

This section describes the critical accounting judgements and estimates that management has identified as having a potentially material impact on the Group's consolidated financial statements and sets out our significant accounting policies. Where an accounting policy is generally applicable to a specific note to the financial statements, the policy is cross referenced. We have also detailed below the new accounting pronouncements that we will adopt in future years and our current view of the impact they will have on our financial reporting.

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

(a) Basis of preparation

These consolidated financial statements of the Ricardo plc Group (the Group) have been prepared in accordance with UK-adopted international accounting standards. The financial statements have been prepared on a going concern basis under the historical cost convention, as modified by financial assets and financial liabilities which are measured at fair value through profit or loss. Derivative instruments that are hedge accounted are measured at fair value through other comprehensive income for the effective element of the hedge, with the ineffective element being charged to the profit or loss.

The principal accounting policies applied in the preparation of these financial statements have been consistently applied to the years ended 30 June 2022 and 30 June 2023.

Going concern

The Board of Ricardo plc has undertaken an assessment of the ability of the Group and Company to continue in operation and meet its liabilities as they fall due over the period of its assessment. In doing so, the Board considered events throughout the period of their assessment, including the availability and maturity profile of the Group's financing facilities and covenant compliance. These financial statements have been prepared on the going concern basis which the Directors consider appropriate for the reasons set out below.

The Group funds its operations through cash generated by the Group and has access to a £150m Revolving Credit Facility (RCF) with a £50m accordion which is linked to two covenants: Adjusted Leverage (defined as net debt divided by underlying EBITDA, adjusted for the impact of acquisitions and disposals, excluding the impact of IFRS 16, for the last twelve months); and Interest Cover (defined as underlying EBITDA, adjusted for the impact of acquisitions and disposals, excluding the impact of IFRS 16, for the last twelve months divided by net finance costs excluding pension and IFRS 16 interest). Covenant limits are a maximum of 3.0x for Adjusted Leverage and a minimum of 4.0x for Interest Cover. These covenants are tested at 30 June and 31 December each year until the debt matures in August 2026.

1. Principal accounting policies (continued)

(a) Basis of preparation (continued)

Net debt at 30 June 2023 was £62.1m, comprising cash and cash equivalents of £49.8m and borrowings, including hire purchase liabilities, but excluding IFRS 16 lease liabilities, of £111.9m. Adjusted Leverage was 1.4x and Interest Cover was 8.3x. As at the date of approval of these financial statements, the amount of RCF undrawn and available to the Group was £58.0m with total borrowing, including overdrafts, of £106.0m and cash and cash equivalents of £39.9m

The Directors have prepared a cash flow forecast which covers the period from the date of approval of these financial statements for a period of at least 12 months from the date of approval of the financial statements. In this forecast, the Directors have considered the impact of known risks, including 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 towards more renewable propulsion methods, on the Group's results, operations and financial position in a severe but plausible downside scenario. The scenario includes lower gross margins and higher costs across the Business Units to account for global inflationary pressures and the removal of new or 'blue sky' revenue streams, together with:

- In Automotive & Industrial, flat revenue from established mobility solutions each year, together with a lower growth rate in emerging solution revenues
- Reduced revenue growth rates in Energy and Environment; Reduced revenue growth rates in Rail and a decline in EBITDA in FY 2023/24
- Decline in key programme volumes in Performance Products in FY 2023/24 with no revenue from new revenue streams in later years
- Delays in the ramp-up of production volumes in Defense with no revenue from new revenue streams in later years
- An increase of 10 working capital days for each operating segment compared with FY 2022/23

The scenario incorporates the appropriate reversal of discretionary bonus payments and setting appropriate levels of dividends, based on the sensitised results of the operating segments. Under this scenario, the Group's adjusted EBITDA is forecast to increase by 14% in FY 2023/24, be broadly flat in FY 2024/25 and then increase by an average of 12% over the final 3 years. The results showed that the Group would be able to continue operating well within its debt covenants and liquidity headroom under the downside scenario.

Following this assessment, the Directors are confident that the Group and Company will have sufficient funds to continue to meet its liabilities as they fall due for at least 12 months from the date of approval of the financial statements and therefore have prepared the financial statements on a going concern basis. Further information on the going concern of the Group can be found on page 108 in the Viability Statement.

(b) Basis of consolidation

The financial statements of the Group consolidate the results of the Company and its subsidiary entities, and include its share of its joint ventures' results accounted for under the equity method. Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group and are deconsolidated from the date that control ceases. Intercompany transactions and balances are eliminated on consolidation.

1. Principal accounting policies (continued)

(b) Basis of consolidation (continued)

The Group applies the acquisition method of accounting for business combinations. The consideration transferred for an acquisition is the fair value of the assets acquired and the liabilities assumed. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Changes in fair value of contingent consideration are included within specific adjusting items. Contingent consideration dependent upon the employment or retention of specific individuals is expensed over the specified period and included within specific adjusting items. Identifiable assets acquired, together with liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. Acquisition-related expenditure is expensed as incurred and recognised within specific adjusting items.

(c) Discontinued operations and assets held for sale

Non-current assets, or disposal groups comprising assets and liabilities, are classified as held-for-sale if it is highly probable that they will be recovered primarily through sale rather than through continuing use.

Such assets, or disposal groups, are measured at the lower of their carrying amount and fair value less costs to sell. Any impairment loss on a disposal group is allocated first to goodwill, and then to the remaining assets and liabilities on a pro rata basis, except that no loss is allocated to inventories, financial assets, deferred tax assets, employee benefit assets, investment property or biological assets, which continue to be measured in accordance with the Group's other accounting policies. Impairment losses on initial classification as held-for-sale or held-for-distribution and subsequent gains and losses on remeasurement are recognised in profit or loss.

Once classified as held-for-sale, intangible assets and property, plant and equipment are no longer amortised or depreciated, and any equity-accounted investee is no longer equity accounted.

A discontinued operation is a component of the Group's business, the operations and cash flows of which can be clearly distinguished from the rest of the Group and which:

- represents a separate major line of business or geographic area of operations;
- is part of a single co-ordinated plan to dispose of a separate major line of business or geographic area of operations; or
- is a subsidiary acquired exclusively with a view to resale.

Classification as a discontinued operation occurs at the earlier of disposal or when the operation meets the criteria to be classified as held-for-sale.

When an operation is classified as a discontinued operation, the comparative income statement of profit or loss statement of comprehensive income is re-presented as if the operation had been discontinued from the start of the comparative year.

(d) Management judgements and key accounting estimates

The preparation of financial statements under IFRS requires the Group'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.

1. Principal accounting policies (continued)

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

Critical judgements in applying the Group's accounting policies

The following are the critical judgements, apart from those involving estimations (which are dealt with separately below), that the Directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the financial statements:

Specific adjusting items: Reorganisation costs – **Note 2** and **Note 7**

Reorganisation costs include expenditure incurred as part of fundamental restructuring activities; significant impairments of property, plant and equipment and leased assets; significant losses on disposal of assets; and other items deemed to be one-off in nature. These costs are presented within specific adjusting items in the income statement. The classification and presentation of these items require significant judgement to determine the nature and intention of the transaction. Details of the Group's alternative performance measures and specific adjusting items are included in **Note 2** and **Note 7**.

Discontinued Operation – **Note 3**

Significant judgement was required to present intercompany transactions in such a way as to allow users of the financial statements to evaluate the financial effects of the discontinued operation. Management has elected to present these transactions in a way that reflects the continuance of these operations, as shown in **Note 3**. If all intercompany transactions were eliminated, profit before tax from the discontinued operation would be reduced by £2.0m in the prior year and £nil in the current year.

Revenue recognition on fixed price contracts – **Note 6**

The identification of and separate accounting for 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 judgments determine the timing of revenue recognition and recognition of contract assets. If performance obligations were identified on a different basis, revenue and amounts recoverable on contracts may be materially reduced or increased.

Goodwill: allocation to CGUs – **Note 15**

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(l)**, for the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the CGUs, or groups of CGUs, that is expected to benefit from that business combination, at the lowest level at which goodwill is monitored for internal management purposes. Goodwill is allocated at the operating segment level, and if goodwill were allocated at a lower level, the results of impairment testing may be different. The Rail segment comprises several CGUs which have been grouped for impairment testing purposes as they are expected to benefit from the synergies of the relevant combinations.

1. Principal accounting policies (continued)

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

Goodwill: allocation of assets to cash-generating units (CGUs) – **Note 15**

Certain property, plant and equipment and right-of-use assets are shared by the A&I Established and A&I Emerging businesses. These include the Shoreham, Detroit and Prague offices. These assets have a carrying value of £12.5m. Previously, these assets were allocated between the two A&I CGUs based on forecast revenue. Due to the decline in expected cash flows for the A&I Established CGU, arising from a shift in the technological landscape to renewable propulsion methods, the shared assets can no longer be allocated on a reasonable and consistent basis to the individual CGUs. The shared assets are therefore allocated, and tested for impairment, at the level of the A&I Established and A&I Emerging group of CGUs. This judgement impacts the result of the impairment review, and if a proportion of these assets were allocated directly to the A&I Established segment, it is likely that additional impairment would be recognised.

Recognition of capitalised development costs – **Note 16**

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 software, products and other 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 Group. Determining whether it is probable that the resulting asset will generate sufficient economic benefits in the future requires management judgement.

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 6**

The majority of the Group's revenue is earned from contracts 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. For each distinct performance obligation recognised over time, revenue is recognised using an input method, based on 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 total forecast contract costs to complete. This method places importance on the accuracy of uncertain estimates, including total costs to complete, the outcome of contract and technical risks, as well as 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 recognition 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.

1. Principal accounting policies (continued)

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

As set out further on pages **105** and **135**, management undertakes a process to assess the risks on inception of all fixed price contracts, then monitors and reviews the risks and performance of contracts as they progress to completion. The highest value, highest risk, most technically complex and financially challenging contracts to deliver, as measured against a number of quantitative and qualitative factors, are categorised as 'Red Category 4' contracts, which are subject to more frequent and senior levels of management review.

As at 30 June 2023, the number of live consulting contracts within the portfolio was in excess of 2,300 (2022: 2,500), with a total value in excess of £870m (2022: £850m). Of this portfolio of contracts, 8 contracts (2022: 9) were categorised as Red Category 4. At 30 June 2023, £1.5m (2022: £3.9m) of revenue had been recognised in respect of work performed on these where outcomes were subject to negotiation with customers. Management has made a specific judgement over the ability to recover each of the amounts under negotiation and has recognised provisions of £0.8m (2022: £2.9m) against this revenue, resulting in a net exposure of £0.7m (2022: £1.0m). The possible financial outcomes from these negotiations range from an upside of £0.8m, if management recovers the full £0.8m of revenue and potential negotiation upside, to a downside of £0.7m, if management is unsuccessful in recovering any of the £1.5m.

Carrying value of Goodwill – Note 15

In performing the impairment assessment of the carrying amount of goodwill, the recoverable amounts of the CGUs, or groups of CGUs, to which goodwill has been allocated are determined using value-in-use (VIU) calculations (see **Note 1(l)**).

The recoverable amount of each CGU, or group of CGUs, is calculated by assessing its value in use, which is determined by performing discounted future pre-tax cash flow calculations for a five-year period and projected into perpetuity. Significant judgements are used to estimate the operating cash flows, growth rates and pre-tax discount rates applied in computing the recoverable amounts of different CGUs, or groups of CGUs. The sensitivity of estimates used to calculate the value in use of each CGU, or group of CGUs, are discussed in **Note 15**.

Goodwill: Inclusion of Research and Development Expenditure Credits – Note 15

Certain UK-based CGUs benefit from Research and Development Expenditure Credits (RDEC), which are an enhanced tax relief on qualifying research and development expenditure. These cash flows are material to the A&I group of CGUs and have been included in the value-in-use calculations, taking into account known changes to legislation, on the basis that there is no indication that the UK government will withdraw this benefit. **Note 15** sets out the impact of the inclusion of RDEC in the value-in-use calculation.

Defined benefit obligation – Note 34

The Group operates a defined benefit pension scheme that provides benefits to a number of current and former employees. This scheme is closed to new entrants and the accrual of future benefits for active members ceased at the end of February 2010. The value of the deficit is particularly sensitive to the market value of the discount rates and actuarial assumptions related to mortality. The sensitivity of the defined benefit obligation to changes in the principal assumptions is set out in **Note 34**.

1. Principal accounting policies (continued)

(e) Research and development expenditure – Note 4

Research and development expenditure is recognised as an administrative expense in the income statement in the year in which it is incurred. Where the activity is performed for customers the cost is recognised as a cost of sale. Directly attributable development expenditure that meets the criteria for recognition as an intangible asset is described in **Note 16**.

(f) Government grants – Note 4

The Group receives income-related grants from various national and supranational government agencies, principally for credits in respect of qualifying research and development expenditure, together with funding of research and development and capital projects. A grant is recognised in the income statement when there is reasonable assurance that the Group will comply with its conditions and that the grant will be received. Grants are presented in the income statement as a deduction from the related expenses.

Grants contributing to the cost of an asset are deducted from the cost of the asset and reflected in depreciation throughout its useful life.

Grants are not normally received until after qualification conditions have been met and the related expenditure has been incurred. Where this is not the case, they are recorded within trade, contract and other payables either as payments received in advance on contracts or as deferred revenue.

(g) Revenue – Note 6

Principle approach

The Group 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 Group expects to be entitled in exchange for those goods and services.

A contract with a customer is considered to exist when the Group 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 Group 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 Group 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 Group'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.

1. Principal accounting policies (continued)

(g) Revenue – Note 6 (continued)

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. Incremental costs incurred to obtain new contracts with customers are recognised as an asset and amortised consistently with the recognition of revenue over the contract term, providing: the contract term is greater than one year; the costs are only incurred as a direct result of the new contract being obtained; and the costs do not directly relate to the fulfilment of specific performance obligations.

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 Group 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 Group 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 Group provides them.

Services provided under fixed price contracts

The majority of the Group's revenue is earned from contracts for the provision of consultancy services that are typically awarded on a fixed price basis. A small number of similar contracts are also awarded to 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. For each distinct performance obligation recognised over time, revenue is recognised using an input method, based on 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. The Group has determined that this method faithfully depicts the Group's performance in transferring control of the services to the customer.

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.

1. Principal accounting policies (continued)

(g) Revenue – Note 6 (continued)

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 Group identifies and immediately recognises expected losses on fixed price performance obligations within a contract.

Services provided under time and materials contracts

Certain contracts for the provision of consultancy services may be awarded on a time and materials basis. Services provided under a time and materials basis typically have a single distinct performance obligation to provide a variable amount of labour to the client 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 Group provides them.

Services provided under subscription and software support contracts

Other contracts primarily relate to annual subscriptions by customers to emergency response and support services for chemical incidents and crisis management. Subscription services are considered to be a single distinct performance obligation for which revenue is recognised at the agreed transaction price on a straight-line basis over the period of subscription.

Software maintenance and support services revenue is recognised separately from the supply of software products on a straight-line basis over the period of maintenance and support. Revenue derived from the supply of ad hoc software-related services, such as training and application engineering, is recognised at the agreed transaction price on a straight-line basis over a typically short period during which the obligation is performed.

Supply of manufactured or assembled products

The majority of the Group's revenue in Performance Products and Defense 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 Group, and is recognised at the point in time that the Group 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 intercompany terms 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 Group 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.

1. Principal accounting policies (continued)

(g) Revenue – Note 6 (continued)

Supply of software products

The Group's software products are standard version-controlled computer aided design, engineering and analysis tools, available for general sale and are primarily sold through Performance Products. The majority of revenue is derived from new and renewed licences of these software products, for which the client has the right to access the product during the licence period, including rolling releases of the latest functionality. A new or renewed licence is considered to be a single distinct performance obligation for which revenue is recognised at the agreed transaction price on a straight-line basis over the licence period.

Perpetual licence sales provide the client with an indefinite right to use the product, excluding rolling releases of the latest functionality. Rolling releases are provided through the separate provision of maintenance and support services. The transaction price of these two distinct performance obligations are separately identifiable within a contract. Revenue is recognised for perpetual licence sales when the performance obligation is satisfied, being the point of delivery of the licence key to the customer.

(h) Specific adjusting items – Note 7

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 Group. These items comprise the amortisation of acquired intangible assets, acquisition-related expenditure, reorganisation costs and other items that are included due to their significance, non-recurring nature or amount. Acquisition-related expenditure includes the costs of acquisitions, deferred and contingent consideration fair value adjustments (including the unwinding of discount factors), transaction-related fees and expenses, and post-deal integration costs. Reorganisation costs include costs arising from major restructuring activities, profits or losses on the disposal of businesses, and significant impairments of property, plant and equipment and right-of-use assets.

(i) Dividends – Note 9

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

(j) Net finance costs – Note 10

Finance income and finance costs are recognised in the income statement in the period in which they are incurred using the effective interest method.

(k) Income tax expense – Note 12

The tax expense for the year comprises current and deferred tax. Tax is recognised in the income statement, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. The current tax charge is the expected tax payable on taxable income for the year, calculated using the average rate applicable for the year on the basis of the tax laws enacted or substantively enacted at the reporting date in the countries where the Group operates. The current tax charge also includes any adjustment to tax payable in respect of previous years.

Management periodically evaluates uncertain positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation and establishes provisions where appropriate on the basis of amounts expected to be paid to the relevant tax authorities. The Group submits annual claims in respect of the UK Government's Research and Development Expenditure Credit (RDEC) scheme. RDEC is taxable income and is a form of government grant that effectively gives corporation tax relief on qualifying research and development (R&D) expenditure. In accordance with IAS 20 Accounting for Government Grants and Disclosure of Government Assistance, credits receivable under the RDEC scheme are offset against the associated qualifying R&D expenditure incurred, both of which are included within operating profit.

The Group have provided for uncertain positions taken in the tax returns with respect to situations in which applicable tax regulation is subject to interpretation and establishes provisions where appropriate on the basis of amounts expected to be paid to the relevant tax authorities.

1. Principal accounting policies (continued)

(k) Income tax expense – Note 12 (continued)

Uncertain tax positions relate primarily to risks around transfer pricing and on-going tax audits. The Group's provision is based on experience of dealing with Tax Authorities in certain jurisdictions in which it operates and an estimate of the most likely outcomes in each territory.

(l) Goodwill – Note 15

Goodwill arises on the acquisition of subsidiaries and represents the excess of the consideration transferred and the fair value of contingent consideration, over the fair value of the identifiable assets acquired and liabilities assumed. Goodwill arising on acquisitions denominated in foreign currencies is retranslated using exchange rates prevailing at each reporting date.

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. For the purpose of impairment testing, goodwill acquired in a business combination is allocated to each of the CGUs, or group of CGUs, that is expected to benefit from that business combination. Each CGU, or group of CGUs, to which goodwill is allocated 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 Group changes the composition of its CGUs, it reallocates goodwill using a relative value approach at the date of the reorganisation, unless the entity can demonstrate that some other method provides a better allocation of goodwill to the reorganised units.

The Group's impairment review compares the carrying value 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 the Directors to perform an assessment of the discounted future cash flows that the CGU, or group of CGUs, is able to generate. See Note 1(c) for discussion of the critical estimates involved in this assessment.

An impairment is deemed to have occurred where the recoverable amount of a CGU, or group of CGUs, is less than the carrying value of the allocated goodwill. Any impairment is recognised immediately in the income statement 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.

(m) Other intangible assets – see Note 16

Acquired intangible assets

Acquired intangible assets that are either separable or arising from contractual rights are recognised at fair value at the date of acquisition, and subsequently at amortised cost. Such intangible assets include client contracts and relationships, together with acquired software and technology. The fair value of acquired intangible assets is determined by use of appropriate valuation techniques.

Software

Purchased software is capitalised on the basis of the purchase price of the software product plus any external and internal 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.

Development costs

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

1. Principal accounting policies (continued)

(m) Other intangible assets – see Note 16 (continued)

Amortisation

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

- Acquisition-related intangible assets:
  - Customer contracts and relationships — Between 2 and 9 years
  - Software and technology — Between 5 and 10 years
- Software — Between 2 and 10 years
- Development costs — Between 3 and 5 years

For certain assets classified as development costs in the Group's Defense operating segment, amortisation is charged on a units of production basis, as this is considered to more accurately reflect the expected pattern of consumption of the future economic benefits embodied in the assets. 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.

(n) Property, plant and equipment – see Note 17

Property, plant and equipment is stated at historical cost less depreciation. The gross 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. Grants contributing to the cost of an asset are deducted from the cost of the asset and reflected in depreciation throughout its useful life.

Depreciation is typically 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 depreciated
- Freehold buildings including improvements — Between 25 and 50 years
- Leasehold property improvements — Over the term of the lease
- Plant and machinery — Between 4 and 25 years
- Fixtures, fittings and equipment — Between 2 and 10 years

The residual values and useful lives of assets are reviewed, and adjusted if appropriate, at the end of each reporting period. For certain assets classified as plant and machinery in the Group's Defense operating segment, depreciation is charged on a units of production basis, as this is considered to more accurately reflect the expected pattern of consumption of the future economic benefits embodied in the assets.

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.

Government Grants

Grants contributing to the cost of an asset are deducted from the cost of the asset and reflected in its depreciation throughout its useful life.

1. Principal accounting policies (continued)
(o) Leases – see **Note 18**
The Group's policy for leases is as follows:

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

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

Right-of-use assets 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 for which the Group is 'reasonably certain' to exercise any extension options. If right-of-use assets are considered to be impaired, the carrying value is reduced accordingly.

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

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

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

Payments in respect of short-term and/or low-value leases are charged to the income statement on a straight-line basis over the lease term. The Group has classified the principal portion of lease payments within financing activities and the interest portion within operating activities within the consolidated cash flow statement,

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

Other sub-leased assets are all classified as operating leases, where payments received (net of any incentives granted by the Group) are recognised in the income statement on a straight-line basis over the lease term.

1. Principal accounting policies (continued)

(p) Provisions for liabilities and charges – see Note 20

Provisions are required for restructuring costs and employment-related benefits when the Group 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. 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 Group's probable liability.

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.

(q) Deferred tax – Note 21

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.

(r) Inventories – Note 22

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 across the Group apart from Performance Products and Defense which are on a 'first-in, first-out' method.

(s) Trade, contract and other receivables – Note 23

Trade receivables are stated net of impairment and for the purposes of impairment testing include non-financial contract assets (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. The simplified approach of IFRS 9 applies a default rate to trade receivables and contract assets. 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 Group considers the risk of expected credit losses on contract assets to be immaterial.

In order to assess the ECL over the lifetime of the asset, a historical provision matrix is used to inform a group-wide 'default rate' which is adjusted for current and expected future economic conditions. To calculate the Group default rates a weighted average default rate for each business unit was taken. It is considered appropriate for the Group to use one set of default rates across the Group, as the customer base across the Group is sufficiently homogenous. Each business unit's customers are primarily comprised of large corporations and historical provision matrixes are sufficiently homogenous.

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 client has entered administration or liquidation proceedings, or the persistent failure of a client to enter into or 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.

1. Principal accounting policies (continued)

(t) Trade, contract and other payables – Note 24

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

(u) Net debt and borrowings – Note 25

Cash and cash equivalents in the Consolidated cash flow statement comprise cash balances and bank overdrafts repayable on demand, including cash and cash equivalents included in disposal groups held for sale. Bank overdrafts are shown within borrowings in current liabilities and bank loans and finance leases are shown within borrowings in either current liabilities or non-current liabilities depending on the maturity date.

Financial liabilities are classified as either amortised cost or fair value through profit and loss. Borrowings are recognised initially at fair value net of direct issue costs and subsequently at amortised cost. Differences between initial value and redemption value are recorded in the income statement over the period of the loan. The fair value of borrowings due for repayment after more than one year approximates to the carrying value as they are primarily floating rate loans where payments are reset to market rates at regular short-term intervals.

(v) Fair value of financial assets and liabilities – Note 28

The Group uses derivative financial instruments, including foreign exchange contracts, to mitigate currency exposures on trading transactions. Fair values of derivative financial instruments are based on the market values of similar instruments at the reporting date.

The Group uses the fair value of foreign currency swap contracts on intercompany loans as hedging instruments. The initial fair value is determined with reference to the relevant spot market exchange rate. The differential between the contracted strike rate and the discounted spot market exchange rate is defined as the movement in fair value. The movement of the hedge's fair value gains and losses on the remeasurement of cash flow derivatives are recognised in retained earnings through the income statement.

The Group hedges the entire carrying value of all intercompany loans denominated in foreign currencies, on which credit risk is considered to be immaterial. Changes in fair value of foreign currency swap, forward and option contracts that relate to hedged items are recognised in retained earnings through the income statement, together with the change in the fair value of the related hedge at the reporting date.

Where intercompany loans denominated in a foreign currency are neither planned nor likely to be settled in the foreseeable future, they are considered to form part of the net investment in the borrowing entity, and foreign exchange differences are recognised through other comprehensive income.

Short-term borrowings and deposits

The fair value of short-term deposits, loans and overdrafts approximates to the carrying amount because of the short maturity of these instruments.

Long-term borrowings

The fair value of borrowings approximates to the carrying amount as they are primarily floating rate loans where payments are reset to market rates at regular intervals.

Derivatives

Derivative financial instruments are initially recognised and measured at fair value on the date a derivative contract is entered into and subsequently measured at fair value on the reporting date. Fair value is estimated by discounting expected future contractual cash flows using prevailing interest rate curves. Amounts denominated in foreign currencies are valued at the exchange rate prevailing at the reporting date (Level 2 of the fair value hierarchy within IFRS 13 Fair Value Measurement). Measurement of all derivative financial instruments was taken to the income statement.

1. Principal accounting policies (continued)

(w) Retirement benefits – Note 34

The Group operates one defined benefit and several defined contribution pension schemes, the assets of which are held in separately administered funds. The defined benefit pension scheme is closed to new entrants and the accrual of future benefit for active members ceased at the end of February 2010. 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. Payments to state-managed pension schemes are dealt with as payments to defined contribution pension schemes as the Group's obligations under the schemes are similar in nature.

For the defined benefit pension scheme, the cost of providing benefit is determined using the projected unit credit method, with actuarial valuations being carried out at each reporting date. Remeasurements are recognised in other comprehensive income except where they result from settlements or curtailments, in which case they are reported in the income statement.

Where necessary, past service costs are recognised immediately in the income statement at the earlier of when the plan amendment or curtailment occurs and when the related restructuring costs or termination benefit are recognised. The defined benefit obligation recognised represents the present value of the pension scheme liabilities net of the fair value of scheme assets. Any asset resulting from the calculation is limited to the future economic benefits available from either refund or reduction in future contributions to the plan.

The interest cost on the net defined benefit obligation for the year is determined by applying the discount rate used to measure the defined benefit obligation at the beginning of the year to the net defined benefit obligation at the end of the year and is included in finance costs.

(x) Share-based payments – Note 35

Equity-settled share-based payments are measured at fair value at the date of grant. The fair value determined at the grant date is expensed on a straight-line basis over the vesting period. 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 and expensed over the vesting period until the vesting date with the recognition of a corresponding liability. The liability is remeasured to fair value at each reporting date up to and including the settlement date, with changes in fair value recognised in the income statement for the year. The amount expensed 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 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.

(y) Foreign currency

Transactions

The functional currency of the Company and the presentation currency of the Group is Pounds Sterling. The functional currency of each subsidiary is the currency of the primary economic environment in which the entity operates. Transactions in currencies other than the functional currency are recorded at prevailing exchange rates. At each reporting date, monetary assets and liabilities denominated in foreign currencies are retranslated at the rates prevailing on the reporting date. Non-monetary 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 the income statement for the year.

1. Principal accounting policies (continued)

(y) Foreign currency (continued)

Consolidation

On consolidation the assets and liabilities of foreign operations, including goodwill and fair value adjustments, are translated into the presentation currency at exchange rates prevailing on the reporting date. Revenues and costs are translated at the average exchange rates of the year unless exchange rates fluctuate significantly. All resulting exchange differences are recognised in other comprehensive income and the translation reserve within equity. On disposal of an operation the related cumulative translation differences are recognised in the income statement as a component of the gain or loss arising on disposal.

(z) Recent accounting developments

Adopted by the Group

The following other standards, interpretations and amendments to existing standards became effective for periods commencing on or after 1 January 2022 and were adopted by the Group from 1 July 2022 and have not had a material impact on the Group:

	Effective date (period commencing)	Endorsed by UK
Issued IFRS		
Amendments and Interpretations to IFRS		
• IAS 37 Onerous Contracts: Cost of Fulfilling a Contract (Amendments to IAS 37)	1 Jan 2023	No
• IAS 1 Presentation of Financial Statements Disclosure of Accounting Policies	1 Jan 2023	Yes
• IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors Definition of Accounting Estimates	1 Jan 2023	Yes
• IAS 12 Income Taxes Deferred Tax related to Assets and Liabilities arising from a Single Transaction	1 Jan 2023	Yes
• IAS 16 Property, Plant and Equipment: Proceeds Before Intended Use (Amendments to IAS 16)	1 Jan 2023	No
• IFRS 3 Business Combinations: Reference to the Conceptual Framework	1 Jan 2023	No
• IFRS 17 Insurance Contracts including Initial Application of IFRS 17 and IFRS 9 comparative information and Amendments to IFRS 17	1 Jan 2023	Yes

1. Principal accounting policies (continued)

(z) Recent accounting developments (continued)

Issued standards, amendments and interpretations not yet effective

The following other standards, interpretations and amendments to existing standards have been issued but were not yet mandatory for the Group for the accounting period commencing on 1 July 2022 and are not expected to have a material impact on the Group:

	Effective date (period commencing)	Endorsed by UK
Issued IFRS		
• IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2, Classification of Liabilities as Current and Non-Current (Amendments to IAS 1)	1 Jan 2024	No
• IAS 1 Presentation of Financial Statements and IFRS Practice Statement 2, Making Materiality Judgements	1 Jan 2024	No
• IAS 7 Statement of Cash Flows Supplier Finance Arrangements	1 Jan 2024	No
• IFRS 7 Financial Instruments: Disclosures Supplier Finance Arrangements	1 Jan 2024	No
• IFRS 16 Lease Liability in a Sale and Leaseback	1 Jan 2024	No

2. Alternative performance measures

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

The underlying results and other APMs may be considered in addition to, but not as a substitute for or superior to, information presented in accordance with IFRS.

(a) Group profit and earnings measures

Underlying profit before tax (PBT) and underlying operating profit: These measures are used by the Board to monitor and measure the trading performance of the Group. Underlying results include the benefits of the results of acquisitions and major restructuring programmes but exclude significant costs (such as the amortisation of acquired intangibles, acquisition-related expenditure, reorganisation costs and other specific adjusting items). Ricardo believes that the underlying results, when considered together with the reported results, provide investors, analysts and other stakeholders with helpful complementary information to better understand the financial performance and position of the Group.

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

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

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

2. Alternative performance measures (continued)

(a) Group profit and earnings measures (continued)

The related tax effects on the above and other tax items which do not form part of the underlying tax rate are also taken into account. Items are treated consistently year-on-year, and these adjustments are also consistent with the way that performance is measured under the Group's incentive plans and its banking covenants. A reconciliation is shown below. Further details of the nature of the specific adjusting items are given in Note 7.

Reconciliation of underlying profit to reported (loss)/profit

	2023			2022 – Restated*		
	Underlying £m	Specific adjusting items £m	Total £m	Underlying £m	Specific adjusting items £m	Total £m
Revenue	445.2	–	445.2	380.2	–	380.2
Cost of sales	(318.9)	–	(318.9)	(260.7)	–	(260.7)
Gross profit	126.3	–	126.3	119.5	–	119.5
Administrative expenses, impairment losses on trade receivables and contract assets, and other income	(92.3)	–	(92.3)	(91.5)	–	(91.5)
Amortisation of acquired intangibles	–	(4.6)	(4.6)	–	(4.5)	(4.5)
Acquisition-related expenditure	–	(6.2)	(6.2)	–	(0.8)	(0.8)
Impairment of non-financial assets	–	(18.7)	(18.7)	–	(2.0)	(2.0)
Reorganisation costs	–	(6.4)	(6.4)	–	(4.2)	(4.2)
ERP implementation costs	–	–	–	–	(0.6)	(0.6)
Other	–	–	–	–	0.3	0.3
Operating profit/(loss) from continuing operations	34.0	(35.9)	(1.9)	28.0	(11.8)	16.2
Net finance costs	(6.1)	–	(6.1)	(3.8)	–	(3.8)
Profit/(loss) before taxation from continuing operations	27.9	(35.9)	(8.0)	24.2	(11.8)	12.4
Income tax (expense)/credit	(7.3)	3.3	(4.0)	(6.5)	2.3	(4.2)
Profit/(loss) for the year from continuing operations	20.6	(32.6)	(12.0)	17.7	(9.5)	8.2
Profit for the year from discontinued operation, net of tax	0.4	6.4	6.8	1.7	(1.3)	0.4
Profit/(loss) for the year	21.0	(26.2)	(5.2)	19.4	(10.8)	8.6

* Costs of £10.0m have been reallocated from administrative expenses to cost of sales in the comparative period. See the Income Statement for further details.

Underlying earnings attributable to the owners of the parent/earnings per share: The Group uses underlying earnings attributable to the owners of the parent as the input to its adjusted EPS measure. This profit measure excludes the amortisation of acquired intangibles, acquisition-related expenditure, reorganisation costs and other specific adjusting items, but is an after-tax measure. The Board considers underlying EPS to be more reflective of the Group's trading performance in the year. A reconciliation between earnings attributable to the owners of the parent and underlying earnings attributable to the owners of the parent is shown in Note 8.

Organic growth/decline: Organic growth/decline is calculated as the growth/decline in the result for the current year compared to the prior year, after adjusting for the impact of acquisitions or disposals, to include the results of those acquisitions or disposals for an equivalent period in each financial year. See Note 14 for details of acquisitions during the year.

2. Alternative performance measures (continued)

(a) Group profit and earnings measures (continued)

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

Headline trading performance

	Underlying			Reported	
	External revenue £m	Operating profit £m	Profit before tax £m	Operating profit/(loss) £m	(Loss)/profit before tax £m
2023					
Total	**446.0**	**34.5**	**28.4**	**6.0**	**(0.1)**
Less: discontinued operation	**(0.8)**	**(0.5)**	**(0.5)**	**(7.9)**	**(7.9)**
Continuing operations	**445.2**	**34.0**	**27.9**	**(1.9)**	**(8.0)**
Less: performance of acquisitions	**(4.8)**	**(1.1)**	**(1.1)**	**4.4**	**4.4**
Continuing operations – organic	**440.4**	**32.9**	**26.8**	**2.5**	**(3.6)**
2022					
Total	387.3	30.1	26.3	17.0	13.2
Less: discontinued operation	(7.1)	(2.1)	(2.1)	(0.8)	(0.8)
Continuing operations	380.2	28.0	24.2	16.2	12.4
Continuing operations at current year exchange rates	392.2	29.2	25.4	17.0	13.2
Growth (%) – Total	15%	15%	8%	(65%)	(101%)
Growth (%) – Continuing operations	17%	21%	15%	(112%)	(165%)
Growth (%) – Continuing organic	16%	18%	11%	(85%)	(129%)
Constant currency growth (%) – Continuing operations	14%	16%	10%	(111%)	(161%)

Segmental underlying operating profit: This is presented in the Group's segmental disclosures and reflects the underlying trading of each segment, as assessed by the main Board. This excludes segment-specific amortisation of acquired intangibles, acquisition-related expenditure and other specific adjusting items, such as reorganisation costs. It also excludes unallocated Plc costs, which represent the costs of running the public limited company and specific adjusting items which are outside of the control of segment management. A reconciliation between segment underlying operating profit, the Group's underlying operating profit and operating profit is presented in Note 5.

(b) Cash flow measures

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

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

2. Alternative performance measures (continued)

(b) Cash flow measures (continued)

Cash conversion

	2023			2022		
	Underlying £m	Specific adjusting items £m	Total £m	Underlying £m	Specific adjusting items £m	Total £m
Operating profit/(loss) from continuing operations	34.0	(35.9)	(1.9)	28.0	(11.8)	16.2
Operating profit from discontinued operation	0.5	7.4	7.9	2.1	(1.3)	0.8
Operating profit	34.5	(28.5)	6.0	30.1	(13.1)	17.0
Depreciation, amortisation and impairment	14.1	18.7	32.8	18.6	2.0	20.6
Amortisation of acquired intangibles	–	4.6	4.6	–	4.5	4.5
EBITDA	48.6	(5.2)	43.4	48.7	(6.6)	42.1
Movement in working capital	(12.8)	1.6	(11.2)	8.2	2.2	10.4
Pension deficit payments	(1.8)	–	(1.8)	(3.0)	–	(3.0)
Gain on disposal of discontinued operation	–	(7.4)	(7.4)	–	–	–
Losses on disposal of assets	0.1	0.6	0.7	0.1	–	0.1
Share based payments	1.3	–	1.3	1.3	–	1.3
Unrealised exchange losses/(gains)	1.2	–	1.2	(0.7)	(0.3)	(1.0)
Cash generated from operations	36.6	(10.4)	26.2	54.6	(4.7)	49.9
Cash conversion	75.3%		60.4%	112.1%		118.5%

The movement in working capital in relation to specific adjusting items for the current year includes trade and other payables of £5.3m and provisions of £0.1m in relation to specific adjusting items recognised as an expense during the current year which had not been paid at 30 June 2023, compared to £3.8m at the prior year end (see Note 7).

Net debt: is defined as current and non-current borrowings less cash and cash equivalents, including hire purchase agreements, but excluding any impact of other IFRS 16 lease liabilities. Management believes this definition is the most appropriate for monitoring the indebtedness of the Group and is consistent with the treatment in the Group's banking agreements. Further details are provided in Note 25.

(c) Tax measures

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

(d) Other measures

Order book: The value of all unworked purchase orders and contracts received from customers at the reporting date, providing an indication of revenue that has been secured and will be recognised in future accounting periods – see Note 23. Management do not consider there to be a closely equivalent GAAP measure.

Order intake: The value of purchase orders and contracts received from customers during the period. The order intake for the current year was £522.0m (2022: £432.2m), including results of the discontinued operation. Management do not consider there to be a closely equivalent GAAP measure.

Headcount: Headcount is calculated as the number of colleagues on the payroll at the reporting date and includes subcontractors on a full-time equivalent basis. The number of employees disclosed in Note 33 is the average for the year.

FINANCIAL PERFORMANCE

The following disclosures provide further information about the drivers of the Group's financial performance in the year. This includes analysis of the respective contribution of the Group's reportable segments along with information about its operating cost base, net finance costs and tax. In addition, disclosure on earnings per share and the dividend is provided.

3. Discontinued operation

Discontinued operations and held for sale accounting policy – ***Note 1(c)***

On 1 August 2022, the Group sold its Software business to a third party. At 30 June 2022, the Group had classified this business as held for sale following agreement of terms with a potential buyer, as a result of a strategic decision to focus on core lines of business. The results of the Software business have been presented as a discontinued operation.

Total consideration for the sale was £14.9m, of which £14.8m was satisfied in cash during the current year. The remaining £0.1m is reflected in other receivables. Additional consideration of up to £2.4m has not been recognised as performance conditions are not expected to be met. £7.5m of net assets were disposed of, and £0.9m of cumulative currency gains were reclassified to the income statement. £0.9m of costs directly attributable to the disposal were incurred during the current year.

Effect of disposal on the financial position of the Group

	£m
Other intangible assets	**(7.2)**
Property, plant and equipment	**(0.1)**
Trade, other and contract receivables	**(1.6)**
Cash and cash equivalents	**(1.7)**
Trade, other and contract payables	**3.2**
Net assets and liabilities	**(7.4)**
Consideration received, satisfied in cash	**14.8**
Cash and cash equivalents disposed of	**(1.7)**
Directly attributable fees	**(0.8)**
Net cash inflows	**12.3**

Result from discontinued operation

	2023 £m	2022 £m
Revenue	**0.8**	9.4
Inter-segment revenue*	**–**	(2.3)
External Revenue	**0.8**	7.1
Expenses	**(0.3)**	(4.1)
Elimination of inter-segment revenue net of recoverable expenses	**–**	2.0
Amortisation of intangible assets	**–**	(2.9)
External expenses	**(0.3)**	(5.0)
Underlying profit from operating activities	**0.5**	2.1
Income tax on underlying result	**(0.1)**	(0.4)
Underlying profit from operating activities, net of tax	**0.4**	1.7
Specific adjusting items	**7.4**	(1.3)
Income tax on specific adjusting items	**(1.0)**	–
Profit from discontinued operation, net of tax	**6.8**	0.4

* Subsequent to the disposal, the Group has continued to purchase software licenses from the discontinued operation and recharge the business for space in its Prague office. Although intra-group transactions have been fully eliminated in the consolidated financial results, management has elected to attribute the elimination of transactions between the continuing operations and the discontinued operation before the disposal in a way that reflects the continuance of these transactions subsequent to the disposal. Management believes this information to be useful to the users of the financial statements.

3. Discontinued operation (continued)

Cash from discontinued operation	2023 £m	2022 £m
Net cash from operating activities	0.5	4.5
Net cash from/(used in) investing activities	12.2	(3.2)
	12.7	1.3

The earnings per share related to the discontinued operation is shown in Note 8.

4. Operating (loss)/profit

***Research and development expenditure accounting policy** – Note 1(e)*
***Government grants accounting policy** – Note 1(f)*

Operating (loss)/profit, including the result of the discontinued operation, are stated after charging/(crediting) the following amounts:

	Note	2023 £m	2022 £m
Depreciation of property, plant and equipment	17	4.8	5.7
Impairment of property, plant and equipment	17	11.7	–
Depreciation of right-of-use assets	18	4.8	4.0
Impairment of right-of-use assets	18	–	0.6
Amortisation of other intangible assets	16	9.1	12.6
Impairment of other intangible assets	16	1.8	2.2
Impairment of goodwill	15	5.2	–
Repairs and maintenance on property, plant and equipment		8.9	12.3
Net impairment expense on trade receivables	23	1.8	1.3
Losses on disposal of property, plant and equipment		0.7	0.1
Research and Development Expenditure Credits (RDEC)		–	5.3
Research and development expenditure		9.1	6.0
Government grant income in respect of research and development expenditure		(6.8)	(2.5)

A government grant reversal of £0.5m (2022: £nil) related to grant income previously received in respect of the Netherlands NOW scheme was recognised in the current year.

5. Financial performance by segment

The segmental analysis helps explain the business in the way that it is monitored by management.

The Group's operating segments are being reported based on the financial information provided to the Chief Operating Decision Maker who is the Chief Executive Officer. The information reported includes financial performance but does not include the financial position of assets and liabilities. The operating segments were identified by evaluating the Group's products and services, processes, types of customers and delivery methods.

During the current year, the Automotive and Industrial segment (A&I) has been disaggregated into Automotive and Industrial – Emerging Mobility and Automotive and Industrial – Established Mobility. This split is reported to the CODM and reflects the revised organisational structure and operating model of the business unit.

The following summarises the operations in each of the Group's reportable segments:

- Energy and Environment (EE) – EE generates revenue from the provision of environmental consultancy services to customers across the world. Customers include governments, public agencies and private businesses;
- Rail – Rail generates revenue from through two separate operations: a consultancy unit that provides technical advice and engineering services; and a separate, independent entity, Ricardo Certification, that performs accredited assurance services;
- Automotive and Industrial – Emerging – A&I Emerging generates revenue through the provision of engineering, strategic consulting, and design, development and testing services, focused on in the design, building and testing of conventional powertrains. Customers include businesses in the automotive, aerospace, defence, off-highway and commercial, marine, and rail markets;
- Automotive and Industrial – Established – A&I Established generates revenue through the provision of engineering, strategic consulting, and design, development and testing services, focused on in power electronic systems and propulsion systems, software and digital technologies. Customers include businesses in the automotive, aerospace, defence, energy, off-highway and commercial, marine, motorcycle and light-personal transport, and rail markets;
- Defense – Defense provides engineering services, software and products to customers in the US defence market, aimed and protecting life and improving the operation, maintenance and support of complex systems; and
- Performance Products (PP) – PP manufactures, assembles and develops niche high-quality components, prototypes and complex products, including engines, transmissions and other precision and performance-critical products. Its customers manufacture low-volume, high-performance products in markets such as motorsport, automotive, aerospace, defence and rail.

The operations of the Group have been categorised into these segments due to the nature of their services, market sectors, client bases and distribution channels and operating across markets requiring adherence to regulatory frameworks that are similar in nature.

5. Financial performance by segment (continued)

Measurement of performance

Management monitors the financial results of its operating segments separately for the purpose of making decisions about allocating resources and assessing performance. Segmental performance is measured based on underlying operating profit, as this measure provides management with an overall view of how the different operating segments are managing their total cost base against the revenue generated from their portfolio of contracts.

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

Included within Plc costs in the following tables are costs arising from a central Group function, including the costs of running the public limited company, which are not recharged to the other operating segments. Comparative figures for the year ended 30 June 2022 have been restated, reflecting the impact of the changes the Group made to its operating segments during the year ended 30 June 2023. The operating segment section of this Annual Report provides further detail on the segments' performance (see page 40 to 55).

	2023					
	Total segment revenue £m	Inter-segment revenue £m	Revenue from external customers £m	Underlying operating profit £m	Specific adjusting items (*) £m	Operating profit £m
Energy & Environment	89.6	(1.1)	88.5	16.0	(2.4)	13.6
Rail	74.1	(0.6)	73.5	8.0	(4.1)	3.9
Automotive and Industrial – Emerging	83.0	(0.7)	82.3	10.6	–	10.6
Defense	88.7	(0.1)	88.6	13.4	(0.1)	13.3
Performance Products	85.2	(0.5)	84.7	9.0	–	9.0
Automotive and Industrial – Established	28.6	(1.0)	27.6	(5.8)	(23.4)	(29.2)
Plc	–	–	–	(17.2)	(5.9)	(23.1)
Total continuing operations	449.2	(4.0)	445.2	34.0	(35.9)	(1.9)
Discontinued operation	0.8	–	0.8	0.5	7.4	7.9
Total	450.0	(4.0)	446.0	34.5	(28.5)	6.0
Net finance costs						(6.1)
Total loss before tax						(0.1)

5. Financial performance by segment (continued)

	2023			
		Capital expenditure		
	Depreciation, amortisation and impairment £m	Other intangible assets £m	Property, plant and equipment £m	Right-of-use assets £m
Energy & Environment	**4.2**	**0.6**	**0.6**	**0.5**
Rail	**4.5**	**0.3**	**0.3**	**0.7**
Automotive and Industrial – Emerging	**3.3**	**2.7**	**3.1**	**1.0**
Defense	**1.8**	**0.4**	**0.4**	**–**
Performance Products	**0.9**	**0.6**	**0.6**	**–**
Automotive and Industrial – Established	**21.0**	**0.7**	**1.2**	**1.6**
Plc	**1.7**	**–**	**–**	**0.1**
Total continuing operations	**37.4**	**5.3**	**6.2**	**3.9**
Discontinued operation	**–**	**0.2**	**–**	**–**
Total	**37.4**	**5.5**	**6.2**	**3.9**

	2022 – Restated **					
	Total segment revenue £m	Inter-segment revenue £m	Revenue from external customers £m	Underlying operating profit £m	Specific adjusting items (*) £m	Operating profit £m
Energy & Environment	68.2	(1.0)	67.2	11.0	(0.6)	10.4
Rail	74.6	(0.3)	74.3	9.4	(4.4)	5.0
Automotive and Industrial – Emerging	69.1	–	69.1	2.7	–	2.7
Defense	45.1	(0.1)	45.0	6.6	(0.4)	6.2
Performance Products	75.0	(1.3)	73.7	8.8	(0.6)	8.2
Automotive and Industrial – Established	54.1	(3.2)	50.9	4.9	(5.2)	(0.3)
Plc	–	–	–	(15.4)	(0.6)	(16.0)
Total continuing operations	386.1	(5.9)	380.2	28.0	(11.8)	16.2
Discontinued operation	9.4	(2.3)	7.1	2.1	(1.3)	0.8
Total	395.5	(8.2)	387.3	30.1	(13.1)	17.0
Net finance costs						(3.8)
Total profit before tax						13.2

5. Financial performance by segment (continued)

	2022 – Restated**			
		Capital expenditure		
	Depreciation, amortisation and impairment £m	Other intangible assets £m	Property, plant and equipment £m	Right-of-use assets £m
Energy & Environment	3.2	1.9	0.7	–
Rail	4.8	–	1.1	4.2
Automotive and Industrial – Emerging	–	2.0	1.4	–
Defense	1.7	0.4	0.1	–
Performance Products	0.8	(0.1)	0.6	–
Automotive and Industrial – Established	9.8	0.5	0.8	0.5
Plc	1.9	–	–	–
Total continuing operations	22.2	4.7	4.7	4.7
Discontinued operation	2.9	3.2	–	–
Total	25.1	7.9	4.7	4.7

* See **Note 7**

** Prior year amounts have been restated as follows:

- **Remove plc management charge:** Previously the costs of running the Group function, such as finance, IT, HR, marketing and legal, were allocated to the business units on the basis of revenue and headcount. These costs are no longer allocated as part of the operating segment underlying operating profit, reflecting the way that the results are reviewed by the CEO and the Board. Comparative results have been restated to reflect a change in the allocation of central costs.
- **Revised A&I operating segments:** For the year ended 30 June 2022, the Automotive and Industrial operating segment results were reported to the CEO (the Chief Operating Decision Maker) in total. For the year ended 30 June 2023 the results were reported separately to the CEO for Established Mobility and Emerging Mobility. Prior year comparative amounts have been restated to reflect this analysis.

The impact of these restatements on the underlying profit of the operating segments is shown below.

	Underlying operating profit: originally reported £m	Remove plc management charge £m	Revised A&I operating segments £m	Underlying operating profit: Restated £m
EE	9.1	1.9	–	11.0
Rail	7.7	1.7	–	9.4
A&I – Total	3.7	3.9	(7.6)	–
A&I – Emerging	–	–	2.7	2.7
Defense	5.9	0.7	–	6.6
PP	7.2	1.6	–	8.8
A&I – Established	–	–	4.9	4.9
Plc	(5.6)	(9.8)	–	(15.4)
Continuing operations	28.0	–	–	28.0
Discontinued operation	2.1	–	–	2.1
Total operating profit	30.1	–	–	30.1

6. Revenue

Revenue accounting policy – Note 1(g)
Key sources of estimation uncertainty: Revenue on fixed price contracts – Note 1(d)

	Continuing operations		Discontinued operations		Total	
	2023 £m	2022 Restated* £m	**2023 £m**	2022 £m	**2023 £m**	2022 Restated* £m
Revenue stream						
Service provided under:						
– fixed price contracts	**216.9**	198.5	**–**	–	**216.9**	198.5
– time and materials contracts	**81.1**	83.9	**–**	–	**81.1**	83.9
– subscription and software support contracts	**5.4**	5.2	**0.1**	0.6	**5.5**	5.8
Goods supplied:						
– manufactured and assembled products	**140.5**	90.7	**–**	–	**140.5**	90.7
– software products	**1.3**	1.2	**0.7**	6.5	**2.0**	7.7
Intellectual property	**–**	0.7	**–**	–	**–**	0.7
Total	**445.2**	380.2	**0.8**	7.1	**446.0**	387.3
Customer location						
United Kingdom	**137.4**	134.5	**0.3**	0.2	**137.7**	134.7
Europe	**78.5**	72.7	**0.1**	1.3	**78.6**	74.0
North America	**139.4**	88.3	**0.2**	1.9	**139.6**	90.2
Rest of Asia	**30.1**	30.7	**0.2**	2.8	**30.3**	33.5
Australia	**23.4**	22.2	**–**	–	**23.4**	22.2
China	**16.4**	20.9	**–**	0.9	**16.4**	21.8
Rest of the World	**20.0**	10.9	**–**	–	**20.0**	10.9
Total	**445.2**	380.2	**0.8**	7.1	**446.0**	387.3
Timing of recognition						
Over time	**304.6**	289.0	**0.8**	5.5	**305.4**	294.5
At a point in time	**140.6**	91.2	**–**	1.6	**140.6**	92.8
Total	**445.2**	380.2	**0.8**	7.1	**446.0**	387.3

* £19.4m of revenue in the prior year has been reclassified from services provided under fixed price contracts to services provided under time and materials contracts (recognised over time) in relation to ABS/ESC kits and spares supplied by the Defense operating segment.

Reported services provided under fixed price contracts in the prior year was £217.9m and has been restated to £198.5m. Services provided under time and materials contracts in the prior year was £64.5m and has been restated to £83.9m.

7. Specific adjusting items

***Specific adjusting items accounting policy** – <u>Note 1(h)</u>*
***Critical judgement on specific adjusting items: Reorganisation costs** – Note 1(d)*

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 Group. These items comprise the amortisation of acquired intangible assets, acquisition-related expenditure, reorganisation costs and other items that are included due to their significance, non-recurring nature or amount. Acquisition-related expenditure is incurred by the Group to effect a business combination, including the costs associated with the integration of acquired businesses. Reorganisation costs relate to non-recurring expenditure incurred as part of fundamental restructuring activities, significant impairments of property, plant and equipment, and other items deemed to be one-off in nature.

	2023 £m	2022 £m
Continuing operations		
Amortisation of acquired intangibles	**4.6**	4.5
Acquisition-related expenditure	**6.2**	0.8
Reorganisation costs		
– Purchases and disposals	**–**	0.3
– Impairment of non-financial assets	**18.7**	2.0
– Other reorganisation costs	**6.4**	3.9
ERP implementation costs	**–**	0.6
Revaluation gain	**–**	(0.3)
Total specific adjusting items from continuing operations before tax	**35.9**	11.8
Tax credit on specific adjusting items	**(3.3)**	(2.3)
Total specific adjusting items from continuing operations after tax	**32.6**	9.5
Specific adjusting items from discontinued operations		
Disposal of discontinued operations	**(7.4)**	1.3
Tax on specific adjusting items from discontinued operations	**1.0**	–
Total specific adjusting items after tax	**26.2**	10.8

Amortisation of acquired intangible assets

On acquisition of a business, the purchase price is allocated to assets such as customer contracts and relationships. Amortisation occurs on a straight-line basis over the asset's useful economic life, which is between two to nine years. During the year, certain "customer contracts and relationships" intangible assets reached the end of their economic life, resulting in an overall decrease in amortisation charges compared to the prior year. This was offset by £0.8m of amortisation of customer relationships and modelling tools acquired as part of the acquisition of E3M and Aither (see **Note 14**).

Acquisition-related expenditure

The current year acquisition-related expenditure comprises:

- £0.4m of integration costs and an accrual for £0.4m of deferred consideration following the acquisition of Inside Infrastructure (2022: £0.4m),
- £0.2m of external fees and integration costs and an accrual for £0.9m of deferred consideration following the acquisition of E3 Modelling S.A. (see **Note 14**) (2022: £nil),
- £0.4m of external fees and integration costs and an accrual for £3.2m of deferred consideration following the acquisition of Aither pty. (see **Note 14**) (2022: £nil); and
- £0.7m of external fees in respect of other strategic projects (2022: £0.4m, including £0.1m retention amount paid to the former owners of PLC Consulting Pty Ltd).

7. Specific adjusting items (continued)

Reorganisation costs

Purchases and disposals

During the prior year a charge of £0.3m was recognised in relation to a reduction in the fair value of deferred consideration in respect of the sale of Ricardo's Detroit engine test business on 3 June 2020. The reduction in the fair value reflected lower levels of traditional engine testing work than originally forecast at the time the business was sold.

Impairment of non-financial assets

Impairment costs of £18.7m (2022: £2.0m) were recognised during the year – see **Note 15**.

Other reorganisation costs

Reorganisation costs include the following amounts:

- £4.7m (2022: £2.9m) in relation to the restructuring of the A&I Established business, including:
  - £1.1m (2022: £nil) loss on disposal of non-current assets and related decommissioning costs,
  - £0.2m of property exit costs (2022: £0.9m),
  - £1.0m (2022: £0.1m) of other costs in relation to the transformation of the A&I business, including the cost of contractors and other external fees, in addition to £2.4m of associated redundancy costs (2022: £2.3m, less £0.4m prior year credit).

This activity concluded in the current year.

- £1.5m (2022: £1.0m) in relation to the Rail and EE business. The current and prior year costs have been paid in the current year. This reflects the result of a significant review of the operational structure of the business, aimed at creating a more flexible and agile business, as the teams move towards working together as a combined Clean Energy and Environmental Services business. Costs incurred related to the exit of a number of senior positions in the organisation, including associated legal and external fees.

This activity concluded in the current year.

- £0.2m of central costs were incurred in relation to the restructuring of the Group. Future costs will be expected as part of the functional alignment across the Group.

These costs have been included within specific adjusting items as they are significant in quantum and would otherwise distort the underlying trading performance of the Group.

7. Specific adjusting items (continued)

ERP implementation costs

As a result of an IFRS Interpretations Committee (IFRIC) decision in March 2021, £0.6m of external costs incurred in the year ended 30 June 2022 in relation to the implementation of a new cloud-based ERP system within the PP segment were expensed in the comparative year. These costs were previously capitalised in line with prevailing practice at the time the costs were incurred. They have been classified as a specific adjusting item as they are not reflective of the underlying performance of the business in the year. The ERP system is expected to be utilised by the Group for at least five years.

Disposal of discontinued operation

During the current year, a gain on the disposal of the discontinued Software business of £7.4m was recognised (see **Note 3**). In the prior year, £1.3m of external fees related to the efforts to sell this business were recognised.

8. Earnings per share

Basic earnings per share is calculated by dividing the earnings attributable to ordinary shareholders by the weighted average number of shares outstanding during the year, excluding those held by an employee benefit trust for the Long-Term Incentive Plan (LTIP) and by the Share Incentive Plan (SIP) for the free share scheme which are treated as cancelled for the purposes of the calculation.

For diluted earnings per share, the weighted average number of ordinary shares in issue is adjusted to assume conversion of all dilutive potential ordinary shares. These include potential awards of LTIP shares and options granted to employees. The assumed proceeds from these is regarded as having been received at the average market price of ordinary shares during the year.

Reconciliations of the earnings and the weighted average number of shares used in the calculations are set out below. Underlying earnings per share is also shown because the Directors consider that this provides a useful indication of underlying performance and trends over time. There are no potentially dilutive shares (2022: Nil).

	2023 £m	2022 £m
(Loss)/earnings attributable to owners of the parent	**(5.4)**	8.6
Add back the net-of-tax impact of:		
– Amortisation of acquired intangibles	**3.5**	3.2
– Acquisition-related expenditure	**6.2**	0.8
– Asset purchases and disposals	**–**	0.3
– Other reorganisation costs and impairment	**22.9**	4.9
– ERP implementation costs	**–**	0.5
– Revaluation gain	**–**	(0.2)
– Discontinued operation	**(6.4)**	1.3
Underlying earnings attributable to owners of the parent	**20.8**	19.4

8. Earnings per share (continued)

	2023 Number of shares millions	2022 Number of shares millions
Basic weighted average number of shares in issue	62.2	62.2
Effect of dilutive potential shares	–	–
Diluted weighted average number of shares in issue	**62.2**	**62.2**

(Loss)/earnings per share	2023 pence	2022 pence
Basic	(8.7)	13.8
Diluted	(8.7)	13.8

Underlying earnings per share	2023 pence	2022 pence
Basic	33.4	31.2
Diluted	33.4	31.2

(Loss)/earnings per share from continuing operations	2023 pence	2022 pence
Basic	(19.3)	13.2
Diluted	(19.3)	13.2

Earnings per share from discontinued operation	2023 pence	2022 pence
Basic	10.9	0.6
Diluted	10.9	0.6

9. Dividends

Dividend accounting policy – Note 1(i)

	2023 £m	2022 £m
Final dividend for prior period: 7.49p per share (2022: 5.11p) per share	4.6	3.2
Interim dividend for current period: 3.35p per share (2022: 2.91p) per share	2.1	1.8
Equity dividends paid	**6.7**	**5.0**

On 6 September 2023 the Directors declared a final dividend of 8.61p per share, which will be paid gross on 24 November 2023 to holders of ordinary shares on the Company's register of members on 3 November 2023.

10. Net finance costs

Net finance costs accounting policy – Note 1(j)

	2023 £m	2022 £m
Finance income		
Bank interest receivable	**0.2**	0.3
Other interest receivable	**0.2**	–
Defined benefit pension financing income	**0.6**	0.2
Interest income on finance lease receivable	**–**	0.1
Total finance income	**1.0**	0.6
Finance costs		
Bank interest payable on borrowings	**(6.1)**	(3.5)
Interest expense on lease liabilities	**(0.9)**	(0.9)
Other interest payable	**(0.1)**	–
Total finance costs	**(7.1)**	(4.4)
Net finance costs	**(6.1)**	(3.8)

11. Auditor's remuneration

During the year the Group (including its subsidiaries) obtained the following services from the Group auditors and its associates:

Fees payable for services provided by the Company's auditor and its associates	2023 £'000	2022 £'000
Audit fees		
Statutory audit of the Company and its consolidated financial statements	**899**	771
Statutory audit of the Company's subsidiaries and their financial statements	**696**	539
Total audit fees	**1,595**	1,310
Non-audit fees		
Audit-related assurance services provided to the Company	**106**	65
Audit-related assurance services provided to the Company's subsidiaries	**18**	–
Total non-audit fees	**124**	65
Non-audit fees as a percentage of audit fees	**7.8%**	5.0%

11. Auditor's remuneration (continued)
Fees payable during the year to the Company's auditor and its associates for audit-related assurance services related to independent reviews, agreed-upon procedures and other services closely related to the audit of the Company and its subsidiaries. The prior year charge includes a £73,000 charge of additional fees in relation to the previous year's audit which were agreed during the prior year. Total audit fees have increased by 22% in the current year due to additional regulatory audit requirements.

Non-audit services comprised the Group's interim review and other audit-related assurance services.

12. Tax expense

Tax expense accounting policy – Note 1(k)

	2023 £m	2022 £m
Current income tax		
UK corporation tax	0.5	0.3
Adjustments in respect of prior years	(0.3)	–
Total UK tax	0.2	0.3
Foreign corporation tax	3.6	2.3
Overseas withholding tax suffered	0.8	0.1
Adjustments in respect of prior years	–	0.1
Total foreign tax	4.4	2.5
Total current tax	4.6	2.8
Deferred tax		
(Credit)/charge for the year	(0.3)	0.6
Adjustments in respect of prior years	0.8	1.2
Total deferred tax	0.5	1.8
Total taxation	5.1	4.6
Tax on items recognised in other comprehensive income	(1.2)	1.6
Tax on items recognised directly in equity	(0.7)	0.3

The tax charge attributed to the discontinued operation is shown in Note 3.

Tax on items recognised in other comprehensive income relate to the tax impact of remeasurements of the defined benefit pension scheme. Tax on items recognised directly in equity relate to equity-settled share-based payment transactions.

12. Tax expense (continued)

The main rate of UK corporation tax for the year ending 30 June 2023 is a weighted average of 20.5%. The Finance Act 2021, which was substantially enacted on 10 June 2021, announced that the main UK corporation tax rate would increase to 25% with effect from 1 April 2023. Deferred taxes in the UK have been measured at the corporation tax rate expected to apply at the time of the reversal of the timing difference. Overseas deferred taxes at the reporting date have been measured and reflected in these financial statements by using the enacted rate within each jurisdiction. The tax charge for the year is higher (2022: higher) than the standard rate of corporation tax in the UK. The differences are set out below:

	2023 £m	2022 £m
(Loss)/ profit before taxation	**(0.1)**	13.2
Multiplied by the standard rate of corporation tax in the UK of 20.5% (2022: 19%)	–	2.5
Effects of:		
Income not taxable	**(1.6)**	–
Expenses not deductible for tax purposes	**3.8**	2.0
Deferred tax recognised in OCI or Equity	**1.9**	(1.9)
Government tax incentives(1)	**(0.2)**	(0.3)
Other overseas taxes(2)	**1.2**	0.4
Adjustment to the IFRIC 23 provision	**(0.1)**	(0.4)
Adjustments in respect of prior years	**0.5**	1.2
Deferred tax – change in UK tax rate	**(0.7)**	0.5
Changes in corporation tax rates	**0.3**	0.6
Total taxation	**5.1**	4.6

(1) Primarily relates to R&D tax credits.
(2) Primarily relates to withholding taxes.

The Group operates in a number of countries and is subject to taxation in numerous jurisdictions. Legislation related to taxation is complex and management are required to make judgements based on appropriate professional advice, and amounts provided are accrued based on management's interpretation of country-specific tax laws. In particular, management applies judgement in respect of ongoing tax audits around the Group, which can take a significant amount of time to be agreed with Tax Authorities. The Group estimates and accrues taxes that will ultimately be payable when reviews or audits by Tax Authorities of tax returns are completed. These estimates include judgements about the position expected to be taken by each Tax Authority.

Income not taxable during the year relates to accounting profits arising from the sale of the Software business in Ricardo Investments Limited. Expenses not deductible relates to a variety of types of costs, but largely relates to acquisition related expenditure and impairments.

Management judgement has also been required to ensure that appropriate transfer pricing is applied on all intra-group transactions, and in determining the amounts that would be undertaken on an arm's length basis. As a result, actual liabilities could differ from the amounts provided which could have a consequent impact on the results and net position of the Group.

None of the amounts are individually material and therefore there is not a significant risk of material differences in future periods.

CAPITAL BASE

13. Non-current assets by geographical location (excluding deferred tax assets)

Asset location	Note	2023 £m	2022 £m
United Kingdom		**83.2**	103.1
Australia		**37.9**	31.5
Netherlands		**19.2**	20.4
North America		**17.8**	16.7
Rest of the World		**44.4**	25.0
Total		**202.5**	196.7
Goodwill	15	**96.1**	90.6
Other intangible assets	16	**35.4**	23.1
Property, plant and equipment	17	**35.3**	47.0
Right-of-use assets	18	**20.7**	18.3
Retirement benefit surplus	34	**12.6**	15.2
Other receivables	23	**2.4**	2.5
Total		**202.5**	196.7

14. Acquisitions

The revenue for the Group for the current year would have been £6.5m higher and the loss for the year reduced by £0.9m if the acquisition date for the business combinations in **Note 14(a)** and **(b)** had been 1 July 2022.

(a) Acquisition in the year to 30 June 2023 – Aither

On 10 March 2023, the Group acquired 90% of the issued share capital of Aither Pty Ltd (Aither), a leading Australian water and natural-resources advisory consultancy. The commitment to purchase the remaining amount gives rise to a financial liability (see below), therefore no non-controlling interest is recognised for the remaining 10% shareholding. Total amounts potentially payable in relation to the acquisition include the following:

- Initial cash consideration of £9.4m (AUD 17.2m), which includes an adjustment for cash and normalised net working capital of £0.1m (AUD 0.1m), paid in March 2023 and June 2023 respectively.
- An earn-out agreement based on the earnings before tax, depreciation and amortisation (EBITDA) for the ten months ended 31 December 2023 comprising two elements:
  - 90% earn-out payment to the vendors of the business, if they remain employed by the business at the earnout date.
  - 10% earn-out bonus to staff employed by the business from completion date and throughout the earnout period.

  This amount is considered to represent post-combination remuneration, in line with IFRS 3. The minimum value of this payment is nil and the maximum is £7.7m (AUD 14.7m).
  An expense of £3.1m has been recognised in the current year in respect of this post-combination remuneration, based on expected EBITDA for the period ended 31 December 2023.
- The purchase of the remaining 10% of share capital is expected to take place on the third anniversary of the acquisition, or the second anniversary by mutual agreement.
  - An amount of £0.8m (AUD 1.6m), with a present value of £0.6m (AUD 1.2m), is not linked to the continuing employment of the vendors or other performance conditions and has been treated as deferred consideration.
  - A further amount is based on the EBITDA of the most recently completed 12 months ended 31 December at the second-tranche purchase date. The minimum undiscounted value of this payment is £1.1m (AUD 2m) and the maximum is £4.6m (AUD 8.8m). This payment is linked to continuing employment of the vendor, and does not form part of the business combination and is considered to represent post-combination remuneration. An expense of £0.1m has been recognised in the current year in respect of this post-combination remuneration, based on expected EBITDA for the period ended 31 December 2025, and a discount rate of 12.8%.

14. Acquisitions (continued)
(a) Acquisition in the year to 30 June 2023 – Aither (continued)

The following table sets out the fair value of cash consideration payable to acquire Aither, together with the fair value of net assets acquired.

	Note	£m
Fair value of cash consideration		
Cash consideration		**9.4**
Deferred consideration		**0.6**
Total fair value of cash consideration		**10.0**
Fair value of identifiable net assets acquired		
Customer contracts	16	**5.9**
Property, plant and equipment – right of use	18	**0.5**
Trade, contract and other receivables		**1.2**
Cash and cash equivalents		**0.6**
Lease liability	18	**(0.5)**
Trade, contract and other payables		**(1.0)**
Deferred tax liabilities		**(1.8)**
Fair value of identifiable net assets acquired		**4.9**
Goodwill	15	**5.1**
Total fair value of cash consideration		**10.0**

The fair value of the identifiable net assets acquired were identified in accordance with the requirements of IFRS 3 Business Combinations and the sale and purchase agreement. The net assets acquired included trade, contract and other receivables with a gross and fair value of £1.2m (AUD 2.2m), all of which are expected to be collected.

Adjustments have been made for the recognition of customer-related intangible assets separable from goodwill amounting to £5.9m (AUD 10.7m), measured under the multi-period excess earnings method. The initial fair value reflects the discounted value of estimated cash flows arising from revenues from customer contracts and relationships, and reflects management's estimate of future performance at the point of acquisition. As the fair value of customer contracts and relationships is based on unobservable inputs, and the projected outcome is classified as a level 3 fair value estimate under the IFRS fair value hierarchy. Key assumptions included in the calculation of the valuation of the asset include the estimated revenues and associated EBITDA margin, the weighted average cost of capital used of 12.8%, as well as the rate of customer attrition over time. The valuation is sensitive to these assumptions, If revenues or EBITDA margin included in the valuation calculation were decreased, the weighted average cost of capital increased, or customer attrition accelerated, the valuation of the customer contracts intangible assets would be lower. The expected useful economic life of the asset is seven years. If the useful economic life was reduced, the amortisation charge for the year would be increased proportionately.

Goodwill arising on acquisition is considered to relate to the existence of a skilled assembled workforce, including skilled water-management consultants, developed expertise and processes, alongside synergies and growth opportunities in the water management-sector which can be achieved with the existing Energy and Environment operating business. These do not meet the criteria for recognition as intangible assets separable from goodwill. Goodwill is considered to benefit the entire Energy & Environment operating segment and therefore it is not considered possible to be allocated on a non-arbitrary basis below this level. None of the goodwill recognised on consolidation is expected to be deductible for tax purposes.

£0.3m of external fees in relations to the acquisition were included in specific adjusting items during the year (see **Note 7**). £2.7m of revenue and £0.1m profit after tax is included in the consolidated statement of comprehensive income in the current year in relation to Aither.

14. Acquisitions (continued)

(b) Acquisition in the year to 30 June 2023 – E3M

On 24 January 2023, the Group acquired 93% of the issued share capital of E3-Modelling S.A (E3M), an Energy and Environment consulting company based in Athens. The commitment to purchase the remaining amount gives rise to a financial liability, no non-controlling interest is recognised for the remaining 7% shareholding. Total amounts potentially payable in relation to the acquisition include the following:

- Initial cash consideration of £19.2m (EUR 21.9m), which includes an adjustment for cash and normalised net working capital of £0.2m (EUR 0.2m), paid in January 2023 and June 2023 respectively.
- An earn-out agreement based on the earnings before tax, depreciation and amortisation (EBITDA) for the twelve months ended 31 December 2023. This amount is considered to represent post-combination remuneration, in line with IFRS 3. The minimum value of this payment is nil and the maximum is £4.8m (EUR 5.4m). An expense of £0.9m has been recognised in the current year in respect of this post-combination remuneration, based on expected EBITDA for the period ended 31 December 2023.
- The purchase of the remaining 7% of share capital is expected to take place in January 2026.
  - An amount of £0.9m (EUR 1.0m), with a present value of £0.6m (EUR 0.7m), is not linked to the continuing employment of the vendors or other performance conditions and has been treated as deferred consideration.
  - A further amount is contingent on the EBITDA for the 12 months ended 31 December 2025. The minimum undiscounted value of this payment is £0.9m (EUR 1.0m) and the amount is uncapped, This payment is linked to continuing employment of the vendor, and does not form part of the business combination and is considered to represent post-combination remuneration. An expense of £0.1m has been recognised in the current year in respect of this post-combination remuneration, based on expected EBITDA for the period ended 31 December 2025, and a discount rate of 15.2%.

The following table sets out the fair value of cash consideration payable to acquire E3M, together with the fair value of net assets acquired.

	Note	£m
Fair value of cash consideration		
Cash consideration		19.2
Deferred consideration		0.6
Total fair value of consideration		19.8
Fair value of identifiable net assets acquired		
Software and technology	16	12.5
Property, plant and equipment	17	0.1
Trade, contract and other receivables		0.8
Cash and cash equivalents		3.6
Trade, contract and other payables		(2.7)
Deferred tax liabilities		(3.0)
Fair value of identifiable net assets acquired		11.3
Goodwill	15	8.5
Total fair value of cash consideration		19.8

The fair value of the identifiable net assets acquired were identified in accordance with the requirements of IFRS 3 Business Combinations and the sale and purchase agreement. The net assets acquired included trade, contract and other receivables with a gross and fair value of £0.8m (EUR 0.9m), all of which are expected to be collected.

14. Acquisitions (continued)

(b) Acquisition in the year to 30 June 2023 – E3M (continued)

Adjustments have been made for the recognition of modelling-tool related intangible assets separable from goodwill amounting to £12.5m (EUR 14.3m), measured under the multi-period excess earnings method. The initial fair value reflects the discounted value of estimated cash flows arising from revenues from the use of the model, and reflects management's estimate of future performance at the point of acquisition. As the fair value of modelling tools is based on these unobservable inputs, and the projected outcome is classified as a level 3 fair value estimate under the IFRS fair value hierarchy. Key assumptions included in the calculation of the valuation of the asset include the estimated revenues and associated operating expenses, the weighted average cost of capital used of 15.2%, as well as the ten-year period over which revenues are expected to occur. The valuation is sensitive to these assumptions, If revenues in the calculation of the valuation were decreased, operating expenses increased, the weighted average cost of capital increases, or the revenues maintained for a shorter period of time, the valuation of the modelling-tool would be lower. The expected useful economic life of the asset is ten years. If the useful economic life was reduced, the amortisation charge for the year would be increased proportionately.

Goodwill arising on acquisition is considered to relate to the existence of a skilled assembled workforce, including skilled consultants with expertise in digital modelling, alongside synergies and growth opportunities in the European energy and environment sector which can be achieved with the existing Energy and Environment operating business. These do not meet the criteria for recognition as intangible assets separable from goodwill. Goodwill is considered to benefit the entire Energy & Environment operating segment and therefore it is not considered possible to be allocated on a non-arbitrary basis below this level. None of these meet the criteria for recognition as intangible assets separable from goodwill. None of the goodwill recognised on consolidation is expected to be deductible for tax purposes.

£0.1m of external fees in relation to the acquisition were included in specific adjusting items during the year (see **Note 7**). £2.0m of revenue and £0.1m profit after tax is included in the consolidated statement of comprehensive income in the current year in relation to E3M.

(c) Acquisition in the year to 30 June 2022 – Inside Infrastructure

On 21 March 2022, the Group acquired the entire issued share capital of Inside Infrastructure Pty Ltd (Inside Infrastructure) for cash consideration of £5.6m (AUD 10.4m), which included an adjustment for cash and normalised net working capital of £0.5m (AUD 0.9m), paid during FY 2021/22. £0.6m (AUD 1.0m) of cash was acquired with the business.

Inside Infrastructure is an Australian technical advisory firm which specialises in water and sustainable resource management. The following tables set out the fair value of cash consideration payable to acquire Inside Infrastructure, together with the fair value of net assets acquired.

14. Acquisitions (continued)

(c) Acquisition in the year to 30 June 2022 – Inside Infrastructure (continued)

	Note	£m
Fair value of cash consideration		
Cash consideration		5.6
Total fair value of cash consideration		5.6
Fair value of identifiable net assets acquired		
Customer contracts	16	2.0
Property, plant and equipment – right of use	18	0.4
Trade, contract and other receivables		0.3
Cash and cash equivalents		0.6
Trade, contract and other payables		(0.5)
Lease liabilities	18	(0.4)
Deferred tax liabilities		(0.6)
Fair value of identifiable net assets acquired		1.8
Goodwill	15	3.8
Total fair value of cash consideration		5.6

The maximum contingent cash payable was £0.6m (AUD 1.0m). The amounts payable will be based on the achievement of annual performance targets measured against the earnings before interest, tax, depreciation and amortisation (EBITDA) of Inside Infrastructure for the year ended 30 June 2023. These payments were dependent upon the continuing employment of the sellers in the business, and were not considered to form part of the consideration for the acquisition. The sellers remained employed in the business and achieved their targeted EBITDA for the year ended 30 June 2023. As a result, £0.4m has been recognised within specific adjusting items in order to reflect an accrual for the fair value of the expected service received during the current year, in addition to £0.1m recognised in the prior year (see **Note 7**).

Adjustments were made to recognise customer-related intangible assets separable from goodwill amounting to £2.0m (AUD 3.6m). The fair value of the contingent cash consideration and provisional identifiable net assets acquired were identified in accordance with the requirements of IFRS 3 Business Combinations and the sale and purchase agreement. The fair value of net assets recognised has not been adjusted compared to the provisional values reported at 30 June 2022.

The goodwill arising on acquisition was ascribed to the existence of a skilled assembled workforce with expertise in water and sustainable resource management, and digital capability within the existing business. These do not meet the criteria for recognition as intangible assets separable from goodwill. Goodwill is considered to benefit the entire Energy & Environment operating segment and therefore it is not considered possible to be allocated on a non-arbitrary basis below this level. None of these meet the criteria for recognition as intangible assets separable from goodwill. None of the goodwill recognised on consolidation is expected to be deductible for tax purposes.

The net assets acquired included trade receivables with a gross and fair value of £0.3m (AUD 0.6m), all of which have been subsequently collected.

Acquisition-related expenditure of £0.3m representing transaction costs and costs incurred to integrate the business into the Group post-acquisition, plus £0.1m of amortisation on acquired intangibles, have been charged to the income statement for the year ended 30 June 2022 and are included as specific adjusting items in **Note 7**.

15. Goodwill and impairment of non-financial assets

Goodwill accounting policy – Note 1(l)
Critical judgement on carrying value of Goodwill: CGUs – Note 1(d)
Key sources of estimation uncertainty on carrying value of Goodwill – Note 1(d)

Movement in goodwill	Note	2023 £m	2022 £m
At 1 July		**90.6**	84.7
Acquisition of business[1]	14	**13.6**	3.8
Impairment[2]		**(5.2)**	–
Exchange adjustments		**(2.9)**	2.1
At 30 June		**96.1**	90.6

The carrying value of goodwill and the key assumptions used in determining the recoverable amount of each CGU, or group of CGUs, are as follows:

	Carrying value		Pre-tax discount rate		Long-term growth rate	
	2023 £m	2022 £m	**2023 £m**	2022 £m	**2023 £m**	2022 £m
Rail	**44.4**	46.2	**13.5%**	12.3%	**2.9%**	3.1%
Automotive and Industrial – Established[2]	**–**	5.0	**14.9%**	13.0%	**(10.0%)**	(10.0%)
Automotive and Industrial – Emerging	**14.4**	14.6	**14.9%**	13.0%	**3.9%**	3.0%
Energy and Environment[1]	**32.7**	20.0	**16.9%**	13.8%	**4.0%**	2.8%
Defense	**3.5**	3.7	**14.0%**	13.8%	**3.3%**	–
Performance Products	**1.1**	1.1	**15.9%**	14.0%	**4.4%**	1.7%
At 30 June	**96.1**	90.6				

(1) As set out in further detail in **Note 14(a)** & **(b)**, the Group acquired Aither and E3M during the current year, adding goodwill of £5.1m and £8.5m respectively to the Energy and Environment CGU. During the prior year, the Group acquired Inside Infrastructure, adding £3.8m of goodwill to the Energy and Environment CGU.
(2) At 31 December 2022, as required by IAS 36, an assessment was carried out to identify whether any indicators existed that the Goodwill balances held by the Group may be impaired. Due to a significantly more challenging performance than expected in the Automotive and Industrial – Established Mobility (A&I Established) segment, an indicator of impairment was considered to exist and the recoverable amount of the cash-generating unit (CGU) was estimated.

The recoverable amount of the CGU was based on its value in use, determined by discounting the future cash flows expected to be generated from the continuing use of the CGU. Expected cash flows for the A&I Established business decreased compared to those expected at 30 June 2022, and the carrying amount of the CGU was therefore determined to be higher than its recoverable value of nil. As a result, an impairment charge of £17.7m was recognised to administrative expenses within specific adjusting items for the A&I Established operating segment. This assessment was updated at 30 June 2023 and a further £1.0m of assets were impaired.

15. Goodwill and impairment of non-financial assets (continued)

The £18.7m of assets written off include £5.2m of goodwill, £1.8m of intangible assets (primarily development costs, including calibration tools), and £11.7m of property, plant and equipment (including £2.8m of buildings and £5.2m of test assets). After recognising the impairment, the carrying value of non-current assets allocated to this CGU was £nil.

	£m
Goodwill	**5.2**
Other intangible assets	**1.8**
Property, plant and equipment	**11.7**
Total impairment	**18.7**

In addition, an estimate of recoverable value for the combined A&I Established and A&I Emerging businesses was calculated in order to assess the carrying value of the assets shared between these CGUs (see Note 1(d)). The carrying value of the shared assets, and the A&I Emerging assets were supported by this calculation with significant headroom, and no further impairment was recognised.

Key assumptions

The five-year plan and discounted cash flow calculations thereon are used to calculate a value in use which is compared to the carrying value of the goodwill and other non-financial assets allocated to each CGU, or group of CGUs at 30 June 2023. Impairment was recognised in relation to A&I Established (see above). No other impairment was considered necessary (2022: Nil). The five-year cashflow forecasts are based on the budget for the following year (year one) and the business plans for years two to five. The five-year plan is prepared by management, and is reviewed and approved by the Board. The five-year plan reflects past experience, management's assessment of the current contract portfolio, contract wins, contract retention, price increases, gross margin, as well as future expected market trends (including the impact of climate change, where relevant), adjusted to meet the requirements of IAS 36 Impairment of Assets.

The risks associated with climate change which have been incorporated into the five-year planning process include the known and expected increased regulation in relation the use of the internal combustion engine (ICE) and the impact that will have on our customers operating in this market. The five-year planning process takes into account the requirement to adapt our product and service portfolios in response to megatrends influenced by climate change. Some risks, such as the risk of sea level rise (see discussion of Principal Risks on **page 104** of the Annual Report) are expected to arise outside of the timeline of the five-year plan and are not considered sufficiently quantifiable to include in the longer-term element of the value-in-use calculation. No other individually significant key financial risks or expenditures have been identified and any additional costs of meeting our net zero objective are not expected to be significant. Due to regulatory and other changes in the market relating to ICE, a long-term decrease of 10% p.a. has been applied to established mobility cashflows.

Cash flows beyond year five are projected into perpetuity using a long-term growth rate, which is determined as being the lower of the planned compound annual growth rate in each CGUs, or group of CGUs, five-year plan and external third party forecasts of the prevailing inflation and economic growth rates for each of the territories in which each CGU, or group of CGUs, primarily operates.

15. Goodwill and impairment of non-financial assets (continued)
The cash flows are discounted at a pre-tax discount rate, which is derived from externally sourced data and reflects the current market assessment of the Group's time value of money and risks specific to each CGU.

Research and Development Expenditure Credits (RDEC) cashflows are included in the value-in-use calculations for A&I – Established, A&I – Emerging, Performance Products and Energy and Environment. They are material to the A&I Established and A&I Emerging groups of CGUs and have been included, taking into account known changes to legislation, on the basis that there is no indication that the UK government will withdraw this benefit.

Sensitivities
The value-in-use calculations were assessed for sensitivity to reasonably possible changes to assumptions. The change in pre-tax discount rate, growth rate, operating profit and working capital which would cause the unit's (or group of units') carrying amount to exceed its recoverable amount was identified and an assessment made as to whether that change was considered reasonably possible. In addition, a scenario was modelled for each of a 10% reduction in operating profit, a 10% increase in working capital movement, a 2% increase in the pre-tax discount rate and a 2% decrease in the long-term growth rate, and a scenario with each of these changes combined.

The following reasonably possible scenarios, resulting in carrying amount exceeding the recoverable amount of goodwill, were identified:

- The Rail group of CGUs recoverable value exceeds its carrying value by £6.7m.
  - An increase in the pre-tax discount rate of 1.0% would result in the carrying value of the Rail groups of CGUs to exceed its recoverable value.
  - A decrease in the long-term growth rate of 1.1% would result in the carrying value of the Rail groups of CGUs to exceed its recoverable value.
  - A decrease in operating profit 6% would result in the carrying value of the Rail groups of CGUs to exceed its recoverable value.
- The Performance Products CGU recoverable value exceeds its carrying value by £8.5m
  - A reduction in operating profit of 9% would result in the carrying value of performance products CGU exceeding its recoverable value.

No other reasonably possible changes to individual assumptions were identified which would cause the carrying amount of a unit's (or group of units') goodwill to exceed its recoverable amount.

16. Other intangible assets

Other intangible assets accounting policy – Note 1(m)
Critical judgement on recoverability of capitalised development costs – Note 1(d)

	Acquired intangible assets				
	Customer contracts and relationships £m	Software and technology £m	Software £m	Development costs £m	Total £m
Cost					
At 1 July 2021	38.0	2.1	23.6	43.2	106.9
Acquisition of business [1]	2.0	–	–	–	2.0
Additions	–	–	0.6	7.3	7.9
Disposals	–	–	(1.5)	(17.4)	(18.9)
Reclassified to held-for-sale	–	–	–	(14.0)	(14.0)
Reclassifications	–	–	0.2	(0.7)	(0.5)
Exchange rate adjustments	1.1	–	0.4	2.1	3.6
At 30 June 2022	41.1	2.1	23.3	20.5	87.0
At 1 July 2022	**41.1**	**2.1**	**23.3**	**20.5**	**87.0**
Acquisition of business [1]	**5.9**	**12.5**	**–**	**–**	**18.4**
Additions	**–**	**–**	**0.1**	**5.4**	**5.5**
Disposals	**–**	**–**	**(0.8)**	**(0.1)**	**(0.9)**
Exchange rate adjustments	**(1.6)**	**(0.2)**	**(0.2)**	**(0.4)**	**(2.4)**
At 30 June 2023	**45.4**	**14.4**	**22.4**	**25.4**	**107.6**
Accumulated amortisation					
At 1 July 2021	27.8	2.0	19.5	23.7	73.0
Charge for the period	4.5	–	1.5	6.6	12.6
Impairment charge	–	–	0.2	2.0	2.2
Disposals	–	–	(1.4)	(17.4)	(18.8)
Reclassified to held-for-sale	–	–	–	(7.0)	(7.0)
Exchange rate adjustments	0.8	0.1	0.3	0.7	1.9
At 30 June 2022	33.1	2.1	20.1	8.6	63.9
At 1 July 2022	**33.1**	**2.1**	**20.1**	**8.6**	**63.9**
Charge for the period	**4.0**	**0.5**	**1.3**	**3.3**	**9.1**
Impairment charge [2]	**–**	**–**	**0.3**	**1.5**	**1.8**
Disposals	**–**	**–**	**(0.8)**	**(0.1)**	**(0.9)**
Reclassifications	**–**	**–**	**–**	**(0.3)**	**(0.3)**
Exchange rate adjustments	**(1.1)**	**–**	**(0.2)**	**(0.1)**	**(1.4)**
At 30 June 2023	**36.0**	**2.6**	**20.7**	**12.9**	**72.2**
Net book value					
At 1 July 2021	10.2	0.1	4.1	19.5	33.9
At 30 June 2022	8.0	–	3.2	11.9	23.1
At 30 June 2023	**9.4**	**11.8**	**1.7**	**12.5**	**35.4**

(1) See note 14
(2) See note 15

16. Other intangible assets (continued)
Customer contracts and relationships were primarily identified as part of the prior year acquisition of Inside Infrastructure (see **Note 14**) and previous acquisitions LR Rail and Transport Engineering. The assets specific to previous acquisitions have carrying values of £0.8m (2022: £2.1m) and £1.7m (2022: £3.9m) and have remaining amortisation periods of one year. Customer contracts and relationships identified as part of the acquisition of Inside Infrastructure (see **Note 14(c)**) have a carrying value of £1.5m (2022: £2.0m) and a remaining amortisation period of five years.

Software which is not acquired through business combinations primarily comprises costs that have been capitalised in respect of an internally developed ERP system. The ERP system has a carrying value of £nil (2022: £0.7m) and has been fully amortised. Software includes £nil (2022: £0.1m) in respect of assets under construction which are not being amortised until the assets are made available for use.

Development costs are incurred to develop and regularly update a suite of simulation and analysis software tools used in the Automotive sector, but also with applications in other sectors. These assets were classified as held-for sale at the year-end as part of the Software disposal group in the prior year (see **Note 19**). Following a detailed review of the asset base against the future strategy, assets relating to technologies and areas that the A&I business will no longer focus on or invest in were identified and derecognised, as no significant further economic benefits are expected to arise from these assets, resulting in a charge to the income statement of £nil (2022: £2.0m) (see **Note 7**).

Development costs include a patented system that combines anti-lock braking and electronic stability control (ABS brake kits) to mitigate rollover fatalities commonly associated with the High Mobility Multipurpose Wheeled Vehicle (HMMWV or Humvee). This asset has a carrying value of £1.3m (2022: £1.7m). Development costs also include £5.4m (2022: £nil) of additions related to customer contracts relationships associated with the Aither acquisition (see **Note 14(a)**.

In addition, development costs include £6.1m (2022: £4.6m) in respect of assets under construction which are not being amortised until the assets are made available for use. Development costs under construction include new technology, tools and processes in the A&I and EE segments.

The amortisation charge of £9.1m (2022: £12.6m) is comprised of £3.5m (2022: £4.0m) included within cost of sales and £5.6m (2022: £8.6m) included within administrative expenses in the income statement, of which £4.6m (2022: £4.5m) relates to acquired intangible assets and is presented within specific adjusting items, as set out in **Note 7**.

17. Property, plant and equipment

Property, plant and equipment accounting policy – Note 1(n)

	Freehold land and buildings £m	Leasehold properties £m	Plant and machinery £m	Fixtures, fittings and equipment £m	Total £m
Cost					
At 1 July 2021	32.0	4.3	82.2	24.1	142.6
Additions	0.2	0.5	2.1	1.9	4.7
Disposals	(0.1)	(0.4)	(4.9)	(4.4)	(9.8)
Reclassified to held-for-sale	–	–	–	(0.3)	(0.3)
Reclassifications	(0.1)	(0.1)	0.7	(0.1)	0.4
Exchange rate adjustments	1.5	0.1	0.4	0.7	2.7
At 30 June 2022	33.5	4.4	80.5	21.9	140.3
At 1 July 2022	**33.5**	**4.4**	**80.5**	**21.9**	**140.3**
Acquisition of business	**–**	**–**	**0.1**	**–**	**0.1**
Additions	**0.2**	**0.5**	**3.4**	**2.1**	**6.2**
Disposals	**(0.2)**	**(0.4)**	**(3.2)**	**(1.7)**	**(5.5)**
Reclassifications	**0.3**	**0.1**	**(0.4)**	**0.1**	**0.1**
Exchange rate adjustments	**(0.5)**	**0.1**	**(0.1)**	**(0.2)**	**(0.7)**
At 30 June 2023	**33.3**	**4.7**	**80.3**	**22.2**	**140.5**
Accumulated depreciation and impairment					
At 1 July 2021	13.5	2.4	61.8	18.0	95.7
Charge for the period	0.5	0.3	3.1	1.8	5.7
Disposals	(0.1)	(0.3)	(4.8)	(4.4)	(9.6)
Reclassified from held-for-sale	–	–	–	(0.2)	(0.2)
Reclassifications	–	(0.1)	–	–	(0.1)
Exchange rate adjustments	1.1	–	0.1	0.6	1.8
At 30 June 2022	15.0	2.3	60.2	15.8	93.3
At 1 July 2022	**15.0**	**2.3**	**60.2**	**15.8**	**93.3**
Charge for the period	**0.6**	**0.5**	**2.0**	**1.7**	**4.8**
Impairment	**2.8**	**0.3**	**7.8**	**0.8**	**11.7**
Disposals	**(0.2)**	**(0.3)**	**(2.5)**	**(1.6)**	**(4.6)**
Reclassifications	**–**	**–**	**0.3**	**–**	**0.3**
Exchange rate adjustments	**(0.3)**	**0.2**	**(0.1)**	**(0.1)**	**(0.3)**
At 30 June 2023	**17.9**	**3.0**	**67.7**	**16.6**	**105.2**
Net book value					
At 1 July 2021	18.5	1.9	20.4	6.1	46.9
At 30 June 2022	18.5	2.1	20.3	6.1	47.0
At 30 June 2023	**15.4**	**1.7**	**12.6**	**5.6**	**35.3**

17. Property, plant and equipment (continued)
Prior year plant and machinery additions are presented net of a £1.5m government grant.

The carrying value of assets under construction included in property, plant and equipment amounts to £1.1m (2022: £4.1m). The prior year value of assets under construction included £2.3m relating to test cells and related equipment.

At 30 June 2023, the Group had plant and machinery financed through a hire-purchase agreement and secured on the asset (see **Note 25**) with a carrying value of £0.3m (2022: £0.6m). As disclosed in **Note 36**, a guarantee was provided to the Ricardo Group Pension Fund (RGPF) of £2.8m in respect of certain contingent liabilities that may arise, which have been secured on freehold land and buildings with a carrying value of £12.1m (2022: £14.8m).

At 30 June 2023, contracts had been placed for future capital expenditure, which have not been provided for in the financial statements, amounting to £0.6m (2022: £1.1m).

£0.3m of ABS brake kit tooling costs previously classified to development costs have been reclassified to plant and machinery to more accurately reflect the nature of the assets (see also **Note 16**).

18. Right-of-use assets, lease liabilities and lease receivables

Leases accounting policy – **Note 1(o)**

(a) Leasing activities as lessee
The Group leases various office premises and technical centres, vehicles and other equipment.

Lease terms are negotiated on an individual basis and contain a wide 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 one to 21 years, with an average of five years, and may have extension or termination options. The impact of exercising these options, where not currently considered reasonably certain, is quantified below. There are several property subleases within the Group – see **Note 18(b)** below. Other lease terms range from one to five years, with an average of three years. Where leases are short-term and/or leases of low-value items, the Group has elected not to recognise right-of-use assets and lease liabilities for these leases.

18. Right-of-use assets, lease liabilities and lease receivables (continued)

(a) Leasing activities as lessee (continued)

(i) Right-of-use assets

Information about leases for which the Group is a lessee is presented below.

	Property £m	Plant and machinery £m	Fixtures, fittings and equipment £m	Total £m
Cost				
At 1 July 2021	33.9	0.9	0.6	35.4
Arising on acquisition	0.4	–	–	0.4
Additions	4.1	0.2	0.4	4.7
Disposals	(6.2)	(0.2)	–	(6.4)
Remeasurements	(2.0)	–	–	(2.0)
Exchange rate adjustments	0.5	–	–	0.5
At 30 June 2022	30.7	0.9	1.0	32.6
At 1 July 2022	**30.7**	**0.9**	**1.0**	**32.6**
Arising on acquisition	**0.5**	**–**	**–**	**0.5**
Additions	**3.5**	**0.3**	**0.1**	**3.9**
Disposals	**(2.3)**	**(0.4)**	**(0.3)**	**(3.0)**
Remeasurements	**2.9**	**0.1**	**(0.1)**	**2.9**
Exchange rate adjustments	**(0.2)**	**–**	**–**	**(0.2)**
At 30 June 2023	**35.1**	**0.9**	**0.7**	**36.7**
Accumulated depreciation and impairment				
At 1 July 2021	15.1	0.6	0.2	15.9
Charge for the period	3.5	0.3	0.2	4.0
Impairment loss	0.6	–	–	0.6
Disposals	(6.2)	(0.2)	–	(6.4)
Exchange rate adjustments	0.2	–	–	0.2
At 30 June 2022	13.2	0.7	0.4	14.3
At 1 July 2022	**13.2**	**0.7**	**0.4**	**14.3**
Charge for the period	**4.3**	**0.3**	**0.2**	**4.8**
Disposals	**(2.3)**	**(0.4)**	**(0.3)**	**(3.0)**
Exchange rate adjustments	**(0.1)**	**–**	**–**	**(0.1)**
At 30 June 2023	**15.1**	**0.6**	**0.3**	**16.0**
Net book value				
At 1 July 2021	18.8	0.3	0.4	19.5
At 30 June 2022	17.5	0.2	0.6	18.3
At 30 June 2023	**20.0**	**0.3**	**0.4**	**20.7**

In the prior period, an impairment charge of £0.6m was recognised in respect of the decision to reduce occupancy of the Prague office. The charge reflects a reduction in the carrying value for part of the site to value-in-use based on expected sublease income, which is expected to be higher than the fair value less costs of disposal. These costs are recognised within administrative expenses and included in “Reorganisation costs: Other reorganisation costs” within specific adjusting items (**Note 7**).

18. Right-of-use assets, lease liabilities and lease receivables (continued)

(a) Leasing activities as lessee (continued)

Other reassessments of lease terms resulted in a remeasurements which increased both right-of-use assets and lease liabilities by £2.9m (2022: £(2.0m)). In the current year, these reassessments included a remeasurement related to rent review for midlands Technical Centre of £1.2m and increase in capacity and extension of lease term for Troy Technical Centre £1.3m.

The net book value of Property above is shown net of £0.8m (2022: £0.8 m) in respect of consideration received as part of a historical sale and leaseback transaction, deemed to be an incentive for extending the lease term.

The lessee's incremental borrowing rate applied to lease liabilities recognised in the statement of financial position at the date of initial application vary due to length and geographical location and are as follows:

- Property – 1.4% to 7.9%
- Plant and machinery – 0.6% to 9.9%
- Fixtures, fittings and equipment – 0.9% to 4.3%

The following amounts are included in the income statement relating to short-term and low value leases:

	2023 £m	2022 £m
Short-term leases	0.5	0.7

As at 30 June 2023, potential future cash outflows of £4.4m (undiscounted) (2022: £4.4m) have not been included in the lease liability because it is not reasonably certain that the leases will be extended, or not terminated.

(ii) Lease liabilities

Movement in lease liability	Note	2023 £m	2022 £m
At 1 July		23.3	24.3
Arising on acquisition		0.5	0.4
New leases		3.8	4.7
Interest	10	0.9	0.9
Payments		(6.0)	(5.4)
Remeasurements		2.9	(2.0)
Exchange rate adjustments		(0.3)	0.4
At 30 June		25.1	23.3

Maturity of lease liability	2023 £m	2022 £m
Current liabilities – maturing within one year	5.7	5.0
Non-current liabilities – maturing after one year	19.4	18.3
At 30 June	25.1	23.3

The maturity analysis of this liability is shown **Note 28(c)**.

18. Right-of-use assets, lease liabilities and lease receivables (continued)

(b) Leasing activities as lessor

The Group subleases out several parts of its leased property. All subleases are classified as operating leases from a lessor perspective with the exception of one sublease, which the Group has classified as a finance sublease.

For significant subleases, a dilapidations provision is put in place to minimise the risk related to the value of the residual asset. Information about leases for which the Group is a lessor is presented below.

(i) Finance lease

During the year, the Group recognised finance income of £0.1m (2022: £0.1m) relating to its lease receivable. The following table sets out the movements in the lease receivable balance during the year.

Movement in lease receivable	Note	2023 £m	2022 £m
At 1 July		**2.1**	2.0
Interest	10	**–**	0.1
Receipts		**(0.2)**	(0.2)
Exchange rate adjustments		**–**	0.2
At 30 June		**1.9**	2.1

The following table sets out a maturity analysis of lease receivable, showing the undiscounted lease payments to be received after the reporting date:

Maturity of lease receivable	2023 £m	2022 £m
Less than one year	**0.2**	0.2
One to two years	**0.2**	0.2
Two to three years	**0.2**	0.2
Three to four years	**0.2**	0.2
Four to five years	**0.2**	0.2
More than five years	**1.5**	1.8
Undiscounted lease receivable	**2.5**	2.8
Unearned finance income	**(0.6)**	(0.7)
Net investment in the lease	**1.9**	2.1

This is a back-to-back lease with a right-of-use asset. As a finance lease this is included in other receivables. See Note 23.

(ii) Operating lease

During the year, the Group recognised rental income of £0.6m (2022: £0.5m) relating to operating leases.

The following table sets out a maturity analysis of lease payments, showing the undiscounted lease payments to be received after the reporting date.

Operating lease income	2023 £m	2022 £m
Less than one year	**0.5**	0.4
One to two years	**0.4**	0.4
Two to three years	**0.3**	0.4
Three to four years	**–**	0.3
	1.2	1.5

19. Disposal group held for sale and non-current assets held for sale

Discontinued operations and held for sale accounting policy – Note 1(c)

The Group's software business was classified as held for sale at 30 June 2022. The sale completed on 1 August 2022 – see **Note 3**.

The fair value less costs to dispose of the disposal group is considered to exceed its carrying value immediately prior to its classification as held for sale. No impairment loss was therefore recognised on reclassification of the disposal group as held for sale.

The value of assets and liabilities included in the disposal group are as follows:

	Note	2023 £m	2022 £m
Other intangible assets	16	–	7.0
Property, plant and equipment	17	–	0.1
Trade, contract and other receivables	23	–	1.4
Cash and cash equivalents	25	–	1.1
Assets held for sale		–	9.6
Trade, contract and other payables	24	–	3.4
Liabilities held for sale		–	3.4

Movements on non-current assets held for sale are as follows:

Movements on non-current assets held for sale	Note	Other intangible assets £m	Property, plant and equipment £m	Total £m
At 1 July 2021		–	–	–
Transferred from non-current assets		7.0	0.1	7.1
At 30 June 2022		7.0	0.1	7.1
At 1 July 2022		**7.0**	**0.1**	**7.1**
Additions		**0.2**	**–**	**0.2**
Exchange adjustments		**0.1**	**–**	**0.1**
Assets disposed of	3	**(7.3)**	**(0.1)**	**(7.4)**
At 30 June 2023		**–**	**–**	**–**

20. Provisions for liabilities and charges

Provisions for liabilities and charges accounting policy – *Note 1(p)*

	Warranty £m	Restructuring costs £m	Employment-related benefits £m	Other £m	Total £m
At 1 July 2021	3.4	1.7	1.8	0.5	7.4
Charged to the income statement	1.9	2.2	0.5	0.2	4.8
Utilised in the period	(1.5)	(1.5)	(0.3)	–	(3.3)
Released in the period	(0.4)	–	–	(0.1)	(0.5)
Exchange rate adjustments	–	0.1	–	(0.1)	–
At 30 June 2022	3.4	2.5	2.0	0.5	8.4
At 1 July 2022	**3.4**	**2.5**	**2.0**	**0.5**	**8.4**
Charged to the income statement	**1.6**	**3.0**	**0.3**	**0.1**	**5.0**
Utilised in the period	**(0.6)**	**(4.5)**	**(0.1)**	**(0.4)**	**(5.6)**
Released in the period	**(1.2)**	**(0.2)**	**–**	**–**	**(1.4)**
Exchange rate adjustments	**–**	**–**	**(0.1)**	**–**	**(0.1)**
At 30 June 2023	**3.2**	**0.8**	**2.1**	**0.2**	**6.3**

	2023 £m	2022 £m
Current	**2.6**	5.1
Non-current	**3.7**	3.3
At 30 June	**6.3**	8.4

The warranty provision reflects the Directors' best estimate of the cost required to fulfil the Group'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.

The prior provision for restructuring costs included amounts payable to former employees who have been made redundant, primarily as part of the reorganisation of our A&I and Rail segments, as set out in further detail in **Note 7**. The element of the provision relating to redundancy costs was partially utilised during the year with the remaining balance expected to be utilised in less than one year. A provision for additional work to take test assets out of service is also included above.

Employment-related benefits are statutory provisions which include long-service awards and termination indemnity schemes. The timing of the cash outflows is dependent upon the retirement or attrition of employees, but is predominantly expected to be more than five years.

Other provisions primarily comprise of dilapidation and restoration costs for leasehold property. Dilapidation and restoration costs reflects management's best estimate of future obligations relating to the maintenance and restoration of leasehold properties arising from past contractual commitments to new, extended or terminated lease agreements. Restoration costs expected at the commencement of the lease are included within the right-of-use asset value (see **Note 18(a)**). The timing of the cash outflows is dependent upon the remaining term of the associated leases and are subject to negotiation.

21. Deferred tax

This note explains how our Group deferred tax charge arises and also provides information on our expected future tax charges and sets out the tax assets held across the Group together with our view on whether or not we expect to be able to make use of these in the future.

Deferred tax accounting policy – *Note 1(q)*

Non-current	2023 £m	2022 £m
Assets	**8.5**	9.0
Liabilities	**(15.5)**	(12.7)
At 30 June	**(7.0)**	(3.7)

	Accelerated capital allowances £m	Defined benefit obligation £m	Tax losses and credits £m	Unrealised capital gains £m	Other £m	Total £m
At 1 July 2021	(5.5)	(1.3)	7.7	(0.7)	(0.1)	0.1
Arising on acquisition	–	–	–	–	(0.6)	(0.6)
Charged to income statement	(1.1)	(0.9)	(1.5)	–	1.7	(1.8)
Charged to other comprehensive income	–	(1.6)	–	–	–	(1.6)
Charged directly to equity	–	–	–	–	(0.3)	(0.3)
Exchange rate adjustments	–	–	–	–	0.5	0.5
At 30 June 2022	(6.6)	(3.8)	6.2	(0.7)	1.2	(3.7)
At 1 July 2022	**(6.6)**	**(3.8)**	**6.2**	**(0.7)**	**1.2**	**(3.7)**
Arising on acquisition	**–**	**–**	**–**	**–**	**(4.7)**	**(4.7)**
Charged to income statement	**(0.1)**	**(0.6)**	**(4.2)**	**–**	**4.4**	**(0.5)**
Credited to other comprehensive income	**–**	**1.2**	**–**	**–**	**–**	**1.2**
Credited directly to equity	**–**	**–**	**–**	**–**	**0.7**	**0.7**
Exchange rate adjustments	**0.1**	**–**	**0.3**	**–**	**(0.4)**	**–**
At 30 June 2023	**(6.6)**	**(3.2)**	**2.3**	**(0.7)**	**1.2**	**(7.0)**

On 30 June 2023, a deferred tax liability of £0.3m is recognised on temporary differences associated with the undistributed earnings of subsidiaries. The Group controls the timing of payment of these undistributed earnings and would suffer a withholding tax charge on these, when remitted to the United Kingdom.

A deferred tax asset continues to be recognised in the United States as at 30 June 2023 in respect of historic research and development claims (R&D credits) that can be utilised against future taxable profits. These R&D credits carry a 20-year statute of limitation and must be utilised within that period. The carrying value of the R&D credits recognised at 30 June 2023 is £1.5m (USD 1.9m) (2022: £4.3m (USD 5.7m). The Directors have performed an assessment and consider that it is probable that future taxable profits will be available in the United States against which the carrying value of the recognised deferred tax asset for the R&D credits can be utilised in the foreseeable future. This assessment was based on a review of the projected annual profit before tax of the consolidated tax group in the United States, based upon the latest Board-approved budgets and business plans for the next three years, together with long-term growth assumptions based on prevailing inflation and economic growth rates. Based on the 'base case' assumptions, the entire deferred tax asset is forecast to be fully utilised by no later than 30 June 2025. The assessment was subject to reverse-stress testing, the results of which did not change management's view of the recoverability of the asset.

In addition, a deferred tax asset continues to be recognised in China as at 30 June 2023 in respect of local tax losses that be can be utilised against future taxable profits. Losses carry a 5 year expiry window from the year subsequent to the year in which the loss was incurred. The carrying value of the tax losses recognised as at 30 June 2023 is £0.6m (2022: £0.3). The Directors have performed an assessment and consider that it is probable that future taxable profits will be available in China against which the carrying value of the recognised deferred tax asset on losses can be utilised in the foreseeable future.

21. Deferred tax (continued)

With respect to the UK, during the year, trading losses on which a deferred tax asset was recognised in the prior year have been fully utilised to offset taxable trading profits in the UK. As such no deferred tax asset is recognised on UK tax losses as at 30 June 2023 (2022: £1.0m). A deferred tax asset has not been recognised on capital losses of £0.3m.

The tax losses incurred in Germany as at 30 June 2023, for which no deferred tax asset has been provided, amounts to £31m (EUR 36m) (2022: £31m, EUR 36m). Due to the restructuring in Germany and the reduction in activity in Germany in recent years, the Directors consider it unlikely that sufficient future taxable profits will be available in Germany in the foreseeable future against which the carrying value of the brought forward deferred tax asset can be utilised.

WORKING CAPITAL

22. Inventories

***Inventories accounting policy* – Note 1(r)**

	2023 £m	2022 £m
Raw materials and consumables	**21.8**	15.6
Work in progress	**6.2**	4.2
Finished goods	**1.5**	1.2
At 30 June	**29.5**	21.0

Inventories of £90.8m (2022: £53.8m) were recognised as an expense during the year and included in cost of sales. During the year £1.6m (2022: £0.5m) of inventory was written down and also included in cost of sales.

23. Trade, contract and other receivables

Trade, contract and other receivables mainly consist of amounts owed to us by customers and amounts that we pay to our suppliers in advance. The note also includes contract assets, which represent an asset for accrued revenue in respect of goods or services delivered to customers for which a trade receivable does not yet exist.

***Trade, contract and other receivables accounting policy* – Note 1(s)**
***Critical judgements – Impairment of financial assets* – Note 1(c)**

	Note	2023 £m	2022 £m
Trade receivables		**74.4**	61.8
Less: provision for impairment of trade receivables		**(2.5)**	(3.3)
Trade receivables – net		**71.9**	58.5
Contract assets:			
– Amounts recoverable on contracts ('AROC')		**55.3**	52.7
– Accrued revenue		**1.1**	0.3
Prepayments		**11.4**	5.7
Lease receivable	18	**1.9**	2.1
Other receivables		**14.3**	11.9
At 30 June		**155.9**	131.2
Current		**153.5**	128.7
Non-current		**2.4**	2.5
At 30 June		**155.9**	131.2

23. Trade, contract and other receivables (continued)

Contract assets arise from the recognition of revenue as and when performance obligations are satisfied, initially recognised as accrued revenue or amounts recoverable on contracts (AROC). The carrying amount of AROC at year-end has increased from £52.7m to £55.3m due to a change in the mix of projects of different sizes and at different stages of completion. AROC is presented net of a provision for impairment of contract assets of £0.3m (2022: £2.1m). Amounts are transferred to trade receivables when the right to consideration becomes unconditional. Typically this is once specified billing milestones are approved by the customer. Payment terms typically range from immediate payment to 90 days after the invoice date, and standard payment terms are 30 days after the invoice date. The revenue recognised in the year from wholly or partially satisfied distinct performance obligations in previous years is £25.9m (2022: £26.2m). This is primarily due to the impact of variation orders and cancellations for changes in scope and transaction price on contracts. Information about the Group's exposure of its trade receivables to credit and market risk is included in Notes 28(d) and 28(e).

Included within prepayments are £1.2m (2022: £1.1m) of assets recognised from the costs to obtain or fulfil an expected contract with a customer. No revenue has been recognised on these costs. An asset has been recognised because the costs directly related to an anticipated contract, they will be used in satisfying performance obligations in the future and the cost are expected to be recoverable.

The £2.4m (2022: £2.5m) non-current asset relates to other receivables. £1.7m (2022: £2.0m) of this relates to the IFRS 16 lease receivable as disclosed in **Note 18**. £0.7m (2022: £0.5m) relates to other receivables.

The movement on the provision for impairment of trade receivables is as follows. The impairment charge is shown net of the release of impairment charge for items subsequently paid.

Provision for impairment of trade receivables	Note	2023 £m	2022 £m
At 1 July		3.3	3.3
Net impairment to the income statement	4	1.8	1.3
Amounts utilised		(2.5)	(1.5)
Exchange rate adjustments		(0.1)	0.2
At 30 June		2.5	3.3

Order book

Order book comprises the value of all unworked purchase orders and contracts received from customers at the reporting date and provides an indication of the amount of revenue that has been secured and will be recognised in future accounting periods. Order book represents the transaction price allocated to wholly and partially unsatisfied distinct performance obligations, as defined by IFRS 15 Revenue from Contracts with Customers. The periods from 30 June in which the distinct performance obligations are expected to be satisfied, excluding the order book of the discontinued operation, are as follows:

	2023 £m	2022 £m
Less than 6 months	165.5	161.9
6 to 12 months	83.9	73.9
Over 12 months	145.9	104.2
At 30 June	395.3	340.0

24. Trade, contract and other payables

Trade, contract and other payables mainly consist of amounts owed to suppliers that have been invoiced or are accrued and contract liabilities relating to consideration received from customers in advance. They also include taxes and social security amounts due in relation to the Group's role as an employer.

Trade, contract and other payables accounting policy – Note 1(t)

	2023 £m	2022 £m
Trade payables	28.1	17.8
Accruals	28.4	27.2
Contract liabilities:		
– Payments received in advance on contracts ('POA')	34.7	20.5
– Deferred revenue	4.0	2.7
Tax and social security payable	8.8	8.2
Other payables	5.8	1.8
At 30 June	**109.8**	78.2
Current	105.0	78.2
Non-current	4.8	–
At 30 June	**109.8**	78.2

Revenue recognised in the year from contract liabilities at the beginning of the year was £24.7m (2022: £17.1m). Contract liabilities primarily relate to the Group's obligation to perform services, which are paid by customers in advance of those services being provided. Contract liabilities have increased due to changes in the mix of contracts containing upfront payment terms.

NET DEBT AND FINANCIAL RISK MANAGEMENT

25. Net debt and borrowings

The objectives when managing capital are to safeguard the ability to continue as a going concern in order to provide returns for shareholders, benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital. Capital is monitored on the basis of the gearing ratio, which is calculated as net debt divided by total capital.

The majority of the Group's cash is held in bank deposits. The Group's sources of borrowing for funding and liquidity purposes come from the Group's £150.0m multi-currency revolving credit facility and through short-term overdraft facilities.

Accounting policy – Note 1(u)

The disclosures in this note include certain Alternative Performance Measures ('APMs'). For more information on the APMs used by the Group, including definitions, please refer to Note 2.

(a) Gearing ratio

	2023 £m	2022 £m
Net debt	62.1	35.4
Total equity	176.6	197.6
Total capital	**238.7**	233.0
At 30 June	**26.0%**	15.2%

25. Net debt and borrowings (continued)

(b) Net debt

Analysis of net debt	Note	2023 £m	2022 £m
Current assets – cash and cash equivalents			
Cash and cash equivalents		**49.8**	49.4
Cash included in disposal group held-for-sale	19	**–**	1.1
Total cash and cash equivalents		**49.8**	50.5
Current liabilities – borrowings			
Bank overdrafts repayable on demand		**(12.6)**	(11.1)
Hire purchase liabilities maturing within one year		**(0.1)**	(0.1)
Total current borrowings		**(12.7)**	(11.2)
Non-current liabilities – borrowings			
Hire purchase liabilities maturing after one year		**–**	(0.2)
Bank loans maturing after one year		**(99.2)**	(74.5)
Total non-current borrowings		**(99.2)**	(74.7)
At 30 June		**(62.1)**	(35.4)
Total cash and cash equivalents at 30 June		**49.8**	50.5
Total borrowings at 30 June		**(111.9)**	(85.9)
At 30 June		**(62.1)**	(35.4)

Movement in net debt	2023 £m	2022 £m
At 1 July	**(35.4)**	(46.9)
Net (decrease)/ increase in cash and cash equivalents and bank overdrafts	**(2.2)**	10.1
Repayments of hire purchase	**0.2**	0.1
Proceeds from bank loans	**(128.0)**	(13.0)
Repayments of bank loans	**103.0**	15.0
Amortisation of bank loan fees	**0.3**	(0.7)
At 30 June	**(62.1)**	(35.4)

At the year-end, the Group had current hire-purchase liabilities of £0.1m and non-current hire-purchase liabilities of £nil. This hire-purchase agreement has an implicit rate of interest of 2.4%. The future undiscounted minimum lease payments due within one year is £0.1m and due after one year is £nil.

At the year-end, the Group held total banking facilities of £166.1m (2022: £216.8m), which included committed facilities of £150.0m (2022: £200.0m). The committed facility consists of a £150.0m multi-currency Revolving Credit Facility (RCF) which provides the Group with committed funding through to July 2026. In addition, the Group has uncommitted facilities including overdrafts of £16.1m (2022: £16.8m), which mature throughout this and the next financial year and are renewable annually.

Non-current bank loans comprise committed facilities of £99.2m (2022: £74.5m), net of direct issue costs, which were drawn primarily to fund acquisitions and general corporate purposes. These are denominated in Pounds Sterling and have variable rates of interest dependent upon the Group's adjusted leverage, which range from 1.65% to 2.45% above SONIA (2022: 1.4% to 2.2% above SONIA).

25. Net debt and borrowings (continued)

Adjusted leverage is defined in the Group's banking documents as being the ratio of total net debt to adjusted EBITDA. Adjusted EBITDA is further defined as being earnings before interest, tax, depreciation, impairment and amortisation, excluding the impact of IFRS 16, adjusted for any one-off, non-recurring, exceptional costs and acquisitions or disposals during the relevant period. At the reporting date, the Group has an adjusted leverage of 1.4x, which attracts a rate of interest of SONIA plus 1.85% (2022: SONIA plus 1.65%). The Group has banking facilities for its UK companies which together have a net overdraft limit, but the balances are presented on a gross basis in the financial statements.

26. Reconciliation of movements of liabilities to cash flows arising from financing activities

	Borrowings Note 25 £m	Lease liabilities Note 18 £m	Total £m
At 1 July 2021	88.9	24.3	113.2
Changes from financing cash flows (see Cash Flow Statement)			
– Proceeds from loans and borrowings	13.0	–	13.0
– Repayment of hire purchase liability	(0.1)	–	(0.1)
– Repayment of bank loan	(15.0)	–	(15.0)
– Movement in bank overdraft	(1.6)	–	(1.6)
– Repayment of lease liabilities	–	(4.6)	(4.6)
Total changes from financing cash flows	(3.7)	(4.6)	(8.3)
Effect of changes in foreign exchange rates	–	0.4	0.4
Other changes			
Liability related			–
– Arising on acquisition	–	0.4	0.4
– New leases	–	4.7	4.7
– Remeasurements	–	(2.0)	(2.0)
– Interest expense	3.5	0.9	4.4
– Interest paid	(2.8)	(0.8)	(3.6)
Total other changes	0.7	3.2	3.9
At 30 June 2022	85.9	23.3	109.2
At 1 July 2022	**85.9**	**23.3**	**109.2**
Changes from financing cash flows (see Cash Flow Statement)			
– Proceeds from loans and borrowings	**128.0**	**–**	**128.0**
– Repayment of hire purchase liability	**(0.2)**	**–**	**(0.2)**
– Repayment of bank loan	**(103.0)**	**–**	**(103.0)**
– Movement in bank overdraft	**1.5**	**–**	**1.5**
– Repayment of lease liabilities	**–**	**(5.1)**	**(5.1)**
Total changes from financing cash flows	**26.3**	**(5.1)**	**21.2**
Effect of changes in foreign exchange rates	**–**	**(0.3)**	**(0.3)**
Other changes			
Liability related			
– Arising on acquisition	**–**	**0.5**	**0.5**
– New leases	**–**	**3.8**	**3.8**
– Remeasurements	**–**	**2.9**	**2.9**
– Interest expense	**6.1**	**0.9**	**7.0**
– Interest paid	**(6.4)**	**(0.9)**	**(7.3)**
Total other changes	**(0.3)**	**7.2**	**6.9**
At 30 June 2023	**111.9**	**25.1**	**137.0**

27. Fair value of financial assets and liabilities

***Fair value of financial assets and liabilities accounting policy* – Note 1(v)**

There are no differences between the fair value of financial assets and liabilities and their carrying value. The Group holds the following financial instruments:

	Note	2023 £m	2022 £m
Financial assets			
Amortised cost:			
– Trade receivables – net	23	**71.9**	58.5
– Lease receivable	23	**1.9**	2.1
– Other receivables	23	**14.3**	11.9
– Cash and cash equivalents	25	**49.8**	49.4
Fair value through profit or loss (FVTPL)			
– Fair value hedging instruments		**2.3**	0.8
		140.2	122.7
Financial liabilities			
Amortised cost:			
– Borrowings	25	**111.9**	85.9
– Lease payables	18	**25.1**	23.3
– Trade payables	24	**28.1**	17.8
– Other payables	24	**5.8**	1.8
Fair value through profit or loss (FVTPL)			
– Fair value hedging instruments		**1.0**	5.1
At 30 June		**171.9**	133.9

A net derivative financial gain of £5.6m (2022: loss £4.2m) was recognised in the year related to foreign exchange contracts (see also **Note 28(g)**):

	2023 £m	2022 £m
Foreign exchange swap contract assets:		
– Fair value losses	**(0.7)**	(5.4)
– Fair value gains	**7.1**	0.9
Foreign exchange swap contract liabilities:		
– Fair value losses	**(1.0)**	(0.6)
– Fair value gains	**0.2**	0.9
	5.6	(4.2)

28. Financial risk management

The financial risks faced by the Group comprise capital risk, liquidity risk, credit risk and market risk (comprising interest rate risk and foreign exchange risk). The Board reviews and agrees policies for managing each of these risks. The Group have no material exposure to commodity price fluctuations and this situation is not expected to change in the foreseeable future.

The financial instruments of the Group comprise floating rate borrowings, the main purpose of which is to raise finance for the Group's operations, and foreign exchange contracts used to manage currency risks.

28. Financial risk management (continued)

(a) Objectives, policies and strategies

The objectives when managing capital are to safeguard the ability to continue as a going concern in order to provide returns for shareholders, benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

(b) Capital risk

Capital is monitored on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as borrowings less cash and cash equivalents. Total capital is calculated as equity, plus net debt. Please see Note 25.

(c) Liquidity risk

The Group's policy towards managing its liquidity risks is to maintain a mix of short- and medium-term borrowing facilities. Short-term flexibility is provided by bank overdraft facilities. In addition, the Group maintains medium-term borrowing facilities in order to provide the appropriate level of finance to support current and future working capital requirements. As the cash profile on large contracts can vary significantly, the Group seeks committed facilities that provide sufficient headroom against forecast requirements to mitigate its exposure.

The tables below analyse the Group's external non-derivative financial liabilities into relevant maturity groupings, based on the remaining period at the reporting date to the contractual maturity date. All amounts disclosed in the tables below are the contractual undiscounted cash flows. These amounts approximate to their carrying amount as the impact of discounting on trade payables that mature after more than one year is insignificant and borrowings that mature after more than one year are primarily floating rate bank loans where payments are reset to market rates at regular short-term intervals.

Not included within the tables below are the following financial liabilities:

- Derivative financial liabilities as their contractual maturities are not considered to be essential for an understanding of the timing of the cash flows; and
- Other payables as the phasing of these liabilities is not contractually defined;

Maturity of trade payables	2023 £m	2022 £m
Within one month	**25.1**	14.3
After one month and within three months	**3.0**	3.5
At 30 June	**28.1**	17.8

Maturity of borrowings	2023 £m	2022 £m
Overdrafts repayable on demand	**12.6**	11.1
Within 12 months:		
– Hire purchase liabilities	**0.1**	0.1
After 12 months and within 5 years:		
– Hire purchase liabilities	**–**	0.2
– Bank loans	**99.2**	74.5
At 30 June	**111.9**	85.9

Maturity of undiscounted lease liability	2023 £m	2022 £m
Within one year	**5.8**	5.1
Between one and five years	**15.3**	13.0
After five years	**7.4**	8.5
Finance portion of net liability	**(3.4)**	(3.3)
At 30 June	**25.1**	23.3

28. Financial risk management (continued)

(d) Credit risk

The Group is exposed to credit risk in respect of its trade receivables, which are stated net of provision for impairment (see **Note 1(s)**). 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 Group's customer base being large and unrelated.

Expected credit loss assessment	Weighted – average loss rate %	Gross carrying amount £m	Impairment loss allowance £m
At 30 June 2022			
Not overdue not impaired	0.25%	47.4	(0.4)
Overdue but not impaired:			
Less than 30 days overdue	2.00%	7.7	(0.2)
31–60 days overdue	5.00%	1.3	(0.1)
61–90 days overdue	10.00%	1.0	(0.1)
91–120 days overdue	20.00%	0.9	(0.2)
121–180 days overdue	25.00%	0.5	(0.1)
181–365 days overdue	50.00%	0.3	(0.2)
Over 365 days overdue	75.00%	2.7	(2.0)
		61.8	(3.3)
At 30 June 2023			
Not overdue not impaired	**0.25%**	**56.7**	**(0.1)**
Overdue but not impaired:			
Less than 30 days overdue	**2.00%**	**10.3**	**(0.2)**
31–60 days overdue	**5.00%**	**1.9**	**(0.1)**
61–90 days overdue	**10.00%**	**1.3**	**(0.1)**
91–120 days overdue	**20.00%**	**0.7**	**(0.1)**
121–180 days overdue	**25.00%**	**1.4**	**(0.6)**
181–365 days overdue	**50.00%**	**1.1**	**(0.5)**
Over 365 days overdue	**75.00%**	**1.0**	**(0.8)**
		74.4	**(2.5)**

The Group's customers include the world's major transportation original equipment manufacturers, tier 1 suppliers, energy companies and government agencies. Revenue by customer location is disclosed within **Note 6** and trade receivables are derived from these customer groups and locations.

The Group has limited experience of bad debts with any of these customers. Of the total net trade receivables balance as at 30 June 2023, £25.3m as received in July 2023 (2022: £25.9m). Trade receivables and contract assets are provided in full when there is no reasonable expectation of recovery. There were no such balances in the current or prior year.

An analysis of net trade receivables by currency is as follows:

Analysis of net trade receivables by currency	2023 £m	2022 £m
Pounds Sterling	**33.7**	25.7
US Dollars	**17.2**	15.5
Chinese Renminbi	**3.1**	6.2
Euros	**6.7**	5.6
Australian Dollars	**1.8**	1.5
Other currencies	**9.4**	4.0
At 30 June	**71.9**	58.5

28. Financial risk management (continued)

(d) Credit risk (continued)

The Group is exposed to bank credit risk in respect of money held on deposit and certain derivative transactions entered into with banks. 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.

Maximum exposure to counterparty risk	2023 £m	2022 £m
Cash and cash equivalents (including held-for-sale disposal group)	**49.8**	50.5
Derivative financial assets	**2.3**	0.8
At 30 June	**52.1**	51.3

Analysis of cash and cash equivalents by geographic location (including held-for-sale disposal group)	2023 £m	2022 £m
United Kingdom	**15.2**	19.6
Asia	**11.4**	8.5
Europe	**8.3**	5.6
Australia	**4.4**	5.0
North America	**3.9**	4.8
Rest of the World	**6.6**	7.0
At 30 June	**49.8**	50.5

(e) Market risk

Interest rate risk

The Group's borrowings and cash balances held at floating interest rates are exposed to cash flow interest rate risk. The exposure to interest rate movements is not currently hedged as the variable rates of interest are largely dependent upon the adjusted leverage of the Group. The effect of any foreseen changes in the underlying reference interest rate remain unhedged, although the policy is reviewed on an ongoing basis. The Group's lease assets and liabilities are held at fixed interest rates.

Financial assets and liabilities by interest type	2023 £m	2022 £m
Financial assets		
• Fixed rate	**1.9**	2.1
• Floating rate	**26.8**	28.7
• Interest-free	**111.5**	91.9
At 30 June	**140.2**	122.7
Financial liabilities		
• Fixed rate	**25.2**	23.6
• Floating rate	**112.5**	86.1
• Interest-free	**34.2**	24.2
At 30 June	**171.9**	133.9

28. Financial risk management (continued)

(e) Market risk (continued)

Foreign exchange risk

The Group faces currency exposures on trading transactions undertaken by its subsidiaries in foreign currencies and balances arising therefrom, and on the translation of profits earned in, and net assets of, overseas subsidiaries primarily in the US, Europe, China and Australia. The carrying amounts of the Group's foreign currency denominated monetary assets and liabilities are:

Foreign currency denominated assets and liabilities	Assets		Liabilities	
	2023 £m	2022 £m	**2023 £m**	2022 £m
US Dollar	**29.9**	24.4	**13.5**	10.1
Euro	**16.7**	12.9	**10.8**	12.8
Chinese Renminbi	**8.7**	13.5	**1.3**	1.6
Australian Dollar	**6.7**	6.7	**5.5**	1.5

The following foreign exchange differences were (charged)/credited to the income statement for the Group:

Foreign exchange gains/(losses) on financial assets and liabilities	Note	**2023 £m**	2022 £m
Derivative contracts measured at FVTPL			
• Foreign exchange contract assets	27	**6.4**	(4.5)
• Foreign exchange contract liabilities	27	**(0.8)**	0.3
Other financial assets		**(6.3)**	1.8
Other financial liabilities		**0.8**	2.8
		0.1	0.4

The Group does not undertake any speculative currency transactions.

The Group use derivative financial instruments primarily to manage currency risk on its US Dollar, Euro, Chinese Renminbi, Japanese Yen, Hong Kong Dollar and Australian Dollar denominated receivables from its subsidiaries, in addition to managing transactional exposures relating to customer contracts denominated in foreign currencies.

(f) Sensitivity analysis of financial instruments to market risk

Exchange rate sensitivity

The Group has financial assets and liabilities denominated in foreign currencies, principally in US Dollars, Euros, Chinese Renminbi and Australian Dollars, which are not in the functional currency of the entity that holds them. A 20% change in the value of the US Dollar, Euro, Chinese Renminbi or Australian Dollar would have an immaterial impact on the value of these financial instruments at the year-end.

Interest rate sensitivity

A reasonably possible change of 2 percentage point in interest rates at the reporting date would have increased (decreased) profit or loss by the amounts shown below, based on the value of the Group's floating rate financial instruments at the year-end.

A 2 percentage points sensitivity is deemed to be appropriate as interest charges on the Group's loans are based on SONIA, and are therefore considered reasonably possible to be subjected to fluctuations in interest rates in the foreseeable future.

Impact of interest rate movements	**2023 Decrease in profit before tax £m**	2022 Decrease in profit before tax £m
2pp increase in interest rates	**(0.9)**	(1.5)

28. Financial risk management (continued)

(g) Cash flow derivatives

The Group employs derivative financial instruments, including foreign exchange contracts, to mitigate currency exposures on trading transactions that could affect the income statement. Changes in the fair value of effective derivative foreign exchange swap contracts designated as hedge accounted under IFRS 9 are recognised in other comprehensive income, with any ineffective amount recognised in the income statement. Any other changes in the fair value of derivative foreign exchange forward and option contracts are recognised in the income statement. No derivative transactions were designated as hedge accounted in the current year.

Cash flows expected to occur from derivative financial instruments used by the Group for hedging purposes are set out below, which will be largely offset by cash flows expected to occur from hedged items.

Affecting the income statement	2023 £m	2022 £m
Within three months	**22.4**	23.8
After three months and within twelve months	**12.8**	9.1
After twelve months	**16.5**	10.5
	51.7	43.4

EQUITY

29. Share capital and share premium

Share capital – ordinary shares of 25p each	2023 Number	2022 Number	2023 £m	2022 £m
Allotted, called up and fully paid				
At 1 July	**62,218,280**	62,218,280	**15.6**	15.6
At 30 June	**62,218,280**	62,218,280	**15.6**	15.6

No dividends were paid for interim and final dividends in respect of shares held by an Employee Benefit Trust (EBT) in relation to the LTIP. There were 2,816 such shares at 30 June 2023 (2022: 8,795 shares).

Share premium	2023 £m	2022 £m
At 1 July and 30 June	**16.8**	16.8

30. Other reserves

The merger reserve represents the amount by which the fair value of the shares issued as consideration for historic acquisitions exceeded their nominal value, offset by the goodwill on these acquisitions, and the premium on a placing share issue, net of directly attributable costs. The translation reserve comprises cumulative foreign exchange differences arising from the translation of financial statements of foreign operations on consolidation.

	Merger reserve £m	Translation reserve £m	Total £m
At 1 July 2021	24.5	13.5	38.0
Exchange rate adjustments	–	6.5	6.5
At 30 June 2022	24.5	20.0	44.5
At 1 July 2022	**24.5**	**20.0**	**44.5**
Exchange rate adjustments	**–**	**(6.4)**	**(6.4)**
Reclassification on disposal of foreign operation	**–**	**(0.9)**	**(0.9)**
At 30 June 2023	**24.5**	**12.7**	**37.2**

31. Retained earnings

	Note	2023 £m	2022 £m
At 1 July		**120.5**	112.2
(Loss)/profit for the period		**(5.4)**	8.6
Remeasurements of the defined benefit pension scheme	34	**(5.0)**	5.2
Deferred tax on remeasurements of the defined benefit pension scheme	21	**1.2**	(1.6)
Ordinary share dividends	9	**(6.7)**	(5.0)
Purchases of own shares to settle awards		**(0.1)**	(0.2)
Tax credit relating to share option schemes		**0.7**	(0.3)
Equity-settled transactions	35	**1.4**	1.6
At 30 June		**106.6**	120.5

32. Non-controlling interests

In the opinion of the Directors, the comprehensive income for the year and equity at the reporting date which is attributable to non-controlling interests is not considered to be material. Non-controlling interests are listed in **Note 37**.

EMPLOYEES

33. Employee numbers and costs

Employee numbers and costs, including the discontinued operation, are as follows:

Staff costs	Note	2023 £m	2022 £m
Wages and salaries (including redundancy and termination costs)		**173.4**	164.4
Social security costs		**19.2**	16.6
Pensions costs – defined contribution schemes		**12.9**	10.2
Share-based payments	35	**1.3**	1.4
Total staff costs		**206.8**	192.6

Average monthly number of employees (including Executive Directors)	2023	2022
Energy and Environment	**862**	729
Rail	**531**	566
Automotive and Industrial	**902**	969
Defense	**206**	182
Performance Products	**351**	411
Plc and Board	**59**	58
Total average number of employees	**2,911**	2,915

Key management compensation	2023 £m	2022 £m
Short-term employee benefits	**4.6**	4.6
Share-based payments	**1.0**	1.0
Post-employment benefits	**0.3**	0.2
Termination benefits	**0.6**	1.0
	6.5	6.8
Key management personnel services provided by a separate management entity	**0.1**	–
Total key management compensation	**6.6**	6.8

Key management personnel are the Board of Directors, together with the Managing Directors who have the authority and responsibility for planning, directing and controlling the Group's activities and resources within the market sectors in which the Group operates. The remuneration received by all Executive and Non-Executive Directors during the year is disclosed in the Directors' Remuneration Report on **page 137**.

34. Retirement benefits

Retirement benefits accounting policy – Note 1(w)
Key sources of estimation uncertainty on defined benefit obligations – Note 1(d)

The Group operates a defined benefit pension scheme, the Ricardo Group Pension Fund (RGPF), which closed to future accrual on 28 February 2010. Responsibility for the governance of the RGPF – including investment decisions and contribution schedules – lies with the Board of Trustees, with the assets held in the fund governed by local regulations and practice in the United Kingdom. The Board of Trustees must be comprised of representatives of the Group and RGPF participants in accordance with the RGPF's regulations. The last approved triennial valuation of the RGPF was completed with an effective date of 5 April 2020 and was approved on 30 November 2021. At the effective date, the assets of the RGPF had a market value of £135.8m and were sufficient to cover 84% of the benefit that had accrued to members when assessed on the Trustees' prudent funding basis. Based on the recovery plan agreed following the 2020 valuation annual contributions due to the RGPF during the year ending 30 June 2023 will be £1.8m. The next triennial valuation with an effective date of 5 April 2023 is being discussed by the Group and the Trustees in 2023 and is expected to be completed in 2024. The IAS 19 Employee Benefits valuation was completed as at 30 June 2023. The pension costs relating to the RGPF were assessed using the projected unit credit method, in accordance with the advice of Mercer, qualified actuaries.

From June 2016, the Group and Trustees decided to introduce a 'retirement flexibility' option to the RGPF, which allows members to transfer out their benefit at retirement. The Group continues to make no allowance within the defined benefit obligation as at 30 June 2023 for members who may elect to transfer out their benefits at retirement. This assumption will be reviewed on an ongoing basis and may change in future as experience emerges as to the level of members who elect to transfer out their benefits at retirement.

The post-retirement mortality assumptions for the current year have been reviewed and use mortality tables known as the SAPS 'Series 3' tables (2022: SAPS 'Series 3'), with an 85% (2022: 85%) multiplier for males and an 84% (2022: 84%) multiplier for females, both applicable to the 'standard' version of the table. The future improvements component has been updated to be in line with the Continuous Mortality Investigation (CMI) 2022 projection model with an 'S-kappa' smoothing parameter of 7, an initial addition to mortality improvements of 0.5%, a 25% weighting on 2022 data and no weighting on 2021 or 2020 data (2022: CMI 2021 with 'S-kappa' smoothing parameter of 7, an initial addition to mortality improvements of 0.5% and no weighting on 2021 or 2020 data). The latest available CMI model will be used at each year-end to provide the most accurate representation of the defined benefit obligation. The use of a 1.25% long-term trend is consistent with the prior year. The "core" version of the CMI 2022 projection model has been used. Due to uncertainties regarding the impact of the COVID-19 pandemic on future mortality trends, this excludes any allowance for population data across 2020 and 2021, and includes a reduced 25% weighting (rather than a full weighting) to 2022 population experience. We will continue to monitor this in the future and have disclosed the sensitivity the defined benefit obligation had to mortality below. Under these principal mortality assumptions, the expected future life expectancy from age 65 is as follows:

	2023		2022	
Age	Males	Females	Males	Females
65 now	**23.1**	**25.5**	23.6	26.0
65 in 20 years	**24.3**	**26.9**	25.0	27.4

Other principal assumptions	2023 % p.a.	2022 % p.a.
Discount rate	**5.40%**	3.85%
RPI inflation rate	**3.30%**	3.25%

34. Retirement benefits (continued)

Other assumptions	2023 %	2022 %
Rate of increase in pensions in payment accrued p.a.		
– Pre 1 July 2002 (pensioner/deferred for current year)	3.75% / 3.65%	3.70% / 3.60%
– Post 1 July 2002 (pensioner/deferred for current year)	3.10% / 2.85%	3.15% / 2.80%
– Post 88 GMP (pensioner/deferred for current year)	2.10% / 2.05%	2.10% / 2.05%
Rate of increase in deferred pension revaluation p.a.	2.70%	2.70%
Percentage of pension to be commuted for lump sum at retirement	15.00%	15.00%

	2023			2022 Restated*		
Scheme assets	Quoted £m	Unquoted £m	Total £m	Quoted £m	Unquoted £m	Total £m
Equities	14.3	–	14.3	15.1	–	15.1
Debt	73.0	–	73.0	82.4	–	82.4
Cash and other	0.9	0.3	1.2	9.7	0.4	10.1
Property fund	7.8	–	7.8	9.8	–	9.8
Investment funds	8.3	–	8.3	9.7	–	9.7
At 30 June	104.3	0.3	104.6	126.7	0.4	127.1

* 2022 has been restated to reclassify the property fund from Unquoted to Quoted

The pension scheme has not invested in any of the company's own financial instrument nor in properties or other asset used by the company. An annuity policy represents the value of an annuity purchased in the name of the Trustee, which provides the pension benefits for one member. The annuity policy has been valued by a qualified actuary based on the related obligations. The portfolio was able to maintain the same long-term objective despite the market moves and collateral calls. Strategic positioning was adjusted during the year as a greater strategic allocation to LDI funds was required to maintain the desired level hedging.

Movements in the fair value of scheme assets and present value of the defined benefit surplus/(obligation) were as follows:

	2023			2022		
Scheme movements	Fair value of plan assets £m	Present value of obligation £m	Net total £m	Fair value of plan assets £m	Present value of obligation £m	Net total £m
At 1 July	127.1	(111.9)	15.2	156.1	(149.3)	6.8
Finance income/(expense)	4.8	(4.2)	0.6	2.9	(2.7)	0.2
Total credit/(charge) to the income statement	4.8	(4.2)	0.6	2.9	(2.7)	0.2
Return on plan assets excluding finance income	(22.6)	–	(22.6)	(28.1)	–	(28.1)
Effect of change in demographic assumptions	–	1.7	1.7	–	(0.1)	(0.1)
Effect of change in financial assumptions	–	18.9	18.9	–	39.5	39.5
Effect of experience adjustments	–	(3.0)	(3.0)	–	(6.1)	(6.1)
Total remeasurements in other comprehensive income	(22.6)	17.6	(5.0)	(28.1)	33.3	5.2
Contributions from sponsoring companies	1.8	–	1.8	3.0	–	3.0
Benefit payments from plan assets	(6.5)	6.5	–	(6.8)	6.8	–
Total cash flows	(4.7)	6.5	1.8	(3.8)	6.8	3.0
Total movements	(22.5)	19.9	(2.6)	(29.0)	37.4	8.4
At 30 June	104.6	(92.0)	12.6	127.1	(111.9)	15.2

34. Retirement benefits (continued)

The sensitivity of the defined benefit scheme to changes in principal assumptions:	Change in assumption	2023 Impact on present value of obligation	2022 Impact on present value of obligation
Discount rate	-0.25%	**Increase by £2.8m**	Increase by £4.0m
Inflation rate	+0.25%	**Increase by £1.7m**	Increase by £2.3m
Post-retirement mortality assumptions	-1 year	**Increase by £2.8m**	Increase by £4.6m

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice this is unlikely to occur and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method has been applied as when calculating the pension liability recognised within non-current liabilities. The methods and types of assumptions used in preparing the sensitivity analysis did not change when compared to the previous year. Exposure to significant risks from the RGPF are as follows:

Risks	Impact
Asset volatility	The RGPF liabilities are calculated using a discount rate set with reference to corporate bond yields. If the RGPF assets underperform this yield, the deficit will increase. The RGPF holds a significant proportion of equities and a diversified range of growth funds, which are expected to outperform corporate bonds in the long-term while providing volatility and risk in the short-term. The Directors are of the view that due to the long-term nature of the RGPF liabilities and the strength of the supporting Group, this is an appropriate strategy to manage the RGPF efficiently.
Corporate bond yields	A decrease in corporate bond yields will increase RGPF liabilities, although this will be partially offset by an increase in the value of the RGPF's bond holdings. Recent events, including the war in Ukraine and recent increases in interest rates by central banks including the Bank of England primarily aimed at controlling price inflation, have caused volatility in the market, which may continue to affect corporate bond yields, with a corresponding impact on discount rates as described above. The pension scheme has not invested in any of the company's own financial instrument nor in properties or other asset used by the company. Corporate bond yields increased significantly between 30 June 2022 and 30 June 2023, resulting in a corresponding increase in the discount rate used to calculate the pension scheme liability, which significantly reduced the value of the liability between these two dates. The scheme's assets are predominantly invested in government bonds and corporate bonds in order to reduce the sensitivity of the scheme's funding level to changes in fixed interest yields, resulting in the value of scheme's assets also reducing significantly due to these increases in bond yields.
Inflation	Although there are some caps in place to protect the RGPF against extreme inflation, increases in the level of inflation will lead to higher liabilities.
Post-retirement mortality assumptions	The RGPF provides benefits for the life of the members, therefore improvements in post-retirement mortality assumptions will result in an increase in the RGPF's liabilities.

The weighted average duration of the defined benefit obligation is 12.0 (2022: 13.0) years.

Expected maturity of undiscounted pension benefits	2023 £m	2022 £m
Less than one year	**5.0**	4.8
Between one and two years	**5.1**	4.9
Between two and five years	**16.2**	15.6
Between five and ten years	**30.3**	29.0

Amounts charged to the income statement in respect of the defined benefit obligation	Note	2023 £m	2022 £m
Net financing income	10	**(0.6)**	(0.2)
Total		**(0.6)**	(0.2)

35. Share-based payments

Accounting policy – Note 1(x)

The Group operates the following share-based payment schemes: an equity-settled and a cash-settled Long-Term Incentive Plan (LTIP); a Deferred Share Bonus Plan (DBP) and an equity-settled all-employee Share Incentive Plan (SIP). The general terms and conditions, including vesting requirements and performance conditions for the equity-settled LTIP, the DBP and the equity-settled SIP are described in the Directors' Remuneration Report. The LTIP, DBP and SIP require shareholder approval for the issue of shares. There were no awards outstanding in relation to the SIP at the year-end.

One third (2022: one third) of awards granted under the LTIP and DBP Matching Awards are dependent on a Total Shareholder Return (TSR) performance condition. As relative TSR is defined as a market condition under IFRS 2 Share-based Payment, this requires the valuation model used to take into account the anticipated performance outcome. The TSR element of the charge to the income statement has been calculated using the Monte Carlo model and the earnings per share (EPS) element has been calculated using the share price at grant date. The following assumptions are used for the plan cycles commencing in these years:

	2023	2022
Weighted average share price at date of award (pence)	**443p**	420p
Expected volatility	**52.0%**	54.0%
Expected life (years)	**3**	3
Risk-free rate	**4.3%**	0.6%
Dividend yield	**0.0%**	0.0%
Possibility of ceasing employment before vesting	**13.0%**	10.0%
Weighted average fair value per LTIP as a percentage of a share at date award	**91.4%**	86.4%

Expected volatility was determined by calculating the historical volatility of the Company's share price over the three financial years preceding the date of award. The share-based payments charge of £1.3m (2022: £1.4m) disclosed in Note 34 was all in respect of equity-settled schemes.

Equity-settled Long-Term Incentive Plan

The current LTIP is described in the Directors' Remuneration Report. Awards are forfeited if the employee leaves the Group before the awards vest, unless they are considered 'good leavers'.

Outstanding	2023 Shares allocated[1]	2022 Shares allocated[1]
At 1 July	**1,699,535**	1,210,262
Awarded	**961,963**	772,799
Lapsed	**(802,157)**	(261,164)
Vested	**(23,514)**	(22,362)
At 30 June	**1,835,827**	1,699,535

(1) Shares allocated excludes dividend roll-up.

The outstanding LTIP awards had a weighted average contractual life of 1.6 years (2022: 1.6 years). The weighted average exercise price during the current year was 462p (2022: 375p). During the prior year, the Group utilised existing shares held in order to settle vested awards.

35. Share-based payments (continued)

Cash-settled Long-Term Incentive Plan

The cash-settled LTIP has the same performance conditions as the equity-settled LTIP but the award is settled in cash rather than by share issue.

Outstanding	2023 Shares allocated[1]	2022 Shares allocated[1]
At 1 July	56,950	21,748
Awarded	44,515	41,702
Vested	–	(6,500)
Lapsed	(5,199)	–
At 30 June	96,266	56,950

(1) Shares allocated excludes dividend roll-up.

The outstanding LTIP awards had a weighted average contractual life of 1.8 years (2022: 2.2 years). The weighted average exercise price during the current year was nil (2022: 380p).

Deferred Share Bonus Plan

The Deferred Share Bonus Plan is described in the Directors' Remuneration Report.

Outstanding	2023 Shares allocated[1]	2022 Shares allocated[1]
At 1 July	60,413	107,883
Awarded	112,101	15,410
Forfeited	(42,823)	(27,320)
Dividend shares awarded in the year	2,872	756
Vested	(24,847)	(36,316)
At 30 June	107,716	60,413

(1) Shares allocated excludes dividend roll-up.

The outstanding DBP awards had a weighted average contractual life of 1.4 years (2022: 0.9 years). The weighted average exercise price during the current year was 444p (2022: 427). During the year, the Group utilised existing shares held to settle vested awards.

UNRECOGNISED ITEMS AND UNCERTAIN EVENTS

36. Contingent liabilities

In the ordinary course of business, the Group has £13.4m (2022: £11.4m) of possible obligations for bonds, guarantees and counter-indemnities placed with the Group's banking and other financial institutions and primarily relating to performance under contracts with customers. These possible obligations are contingent on the outcome of uncertain future events which are considered unlikely to occur. The Group is also involved in commercial disputes and litigation with some customers, which is also in the normal course of business. Whilst the result of such disputes cannot be predicted with certainty, the ultimate resolution of these disputes is not expected to have a material effect on the Group's financial position or results.

In July 2013, a guarantee was provided to the Ricardo Group Pension Fund (RGPF) of £2.8m in respect of certain contingent liabilities that may arise, which have been secured on specific land and buildings (see Note 17). The outcome of this matter is not expected to give rise to any material cost to the Group. In October 2018, a further guarantee was provided to the RGPF for an amount that shall not exceed the employers' liability were a debt to arise under Section 75 of the Pensions Act 1995. In November 2021 the guarantee was extended for a further 3 years and will now terminate on 5 April 2026. The outcome of this matter is not expected to give rise to any material cost to the Group on the basis that the Group continues as a going concern.

OTHER

37. Related undertakings of the Group

UK subsidiaries

Subsidiary or related undertaking	Registered office	Company Number	Principal activities
Ricardo Investments Limited*	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	02251330	Holding Company and Management Services
Ricardo EMEA Limited∞	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	09461485	Holding Company and Management Services
Ricardo UK Limited	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	02815682	Automotive & Industrial Consulting, Strategic Consulting, Defence Consulting and Performance Products
Ricardo Asia Limited∞	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	03143661	Automotive & Industrial Consulting, Rail Consulting and Business Development
Power Planning Associates Limited∞	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	03419816	Holding Company
Ricardo-AEA Limited	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	08229264	Energy & Environmental Consulting
Cascade Consulting (Environment & Planning) Limited∞	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	04176068	Energy & Environmental Consulting
Ricardo Innovations Limited∞	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	08977105	Energy & Environmental Consulting
Ricardo Rail Limited	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	03226319	Rail Consulting
Ricardo Certification Limited∞	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	09481761	Independent Assurance
Ricardo Software Limited	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	07527490	Dormant
Ricardo Strategic Consulting Limited	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	03696451	Dormant
Ricardo Consulting Engineers Limited∞	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	05891521	Automotive & Industrial Consulting
Ricardo Technology Limited	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	02924157	Dormant
Ricardo Transmissions Limited	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	01498115	Dormant
Ricardo Pension Scheme (Trustees) Limited	Shoreham Technical Centre, Old Shoreham Road, Shoreham-by-Sea, West Sussex, BN43 5FG, United Kingdom†	02376569	Dormant

37. Related undertakings of the Group (continued)

Overseas subsidiaries

Subsidiary or related undertaking	Registered office	Country	Principal activities
Ricardo Energy Environment and Planning Pty Ltd	Grant Thornton Australia Limited, Level 17, 383 Kent Street, Sydney, NSW, 2000, Australia	Australia	Energy & Environmental Consulting
Ricardo Australia Pty Ltd*	Mills Oakley FAO: Thomas Kannan, Level 7, 151 Clarence Street, Sydney NSW 2000, Australia	Australia	Holding Company and Rail Consulting
Ricardo Rail Australia Pty Ltd	Suite 2.01, Level 2, Tower B, The Zenith, 821 Pacific Highway, Chatswood, New South Wales, 2067, Australia	Australia	Rail Consulting
Inside Infrastructure Pty Ltd(*)	Level 1, 101 Flinders Street, Adelaide, SA 5000, Australia	Australia	Energy & Environmental Consulting
Aither Pty Ltd (90%)(1)	O'Connells OBM Pty Ltd, Level 1, 20 Creek Street, Brisbane QLD 4000	Australia	Energy & Environmental Consulting
Ricardo Canada, Inc*	2600-160 Elgin Street, Ottawa, Ontario, Canada, K0A 1C3	Canada	Business Development
Ricardo Shanghai Company Limited*	Unit DEF, 10F, Building H, No. 2337 Gudai Road, Minhang District, Shanghai 201100, PR China	China	Automotive & Industrial Consulting, Rail Consulting and Business Development
Chongqing Transportation Railway Safety Assessment Center Limited (60%)(2)	No. 2 Yangliu Road, Mid Huangshan Street, New North District,Chongqing, 401123, PR China	China	In Liquidation
Ricardo Beijing Company Limited	Room 1215, 11th Floor, No. 63 East 3rd Riding Middle Road, Chaoyang District, Beijing, China	China	Independent Assurance
Ricardo Prague s.r.o.*	Palác Karlín, Thámova 11-13, 186 00 Praha 8, Czech Republic	Czechia	Automotive & Industrial Consulting
Ricardo Certification Denmark ApS	Høffdingsvej 34, 2500 Valby, Copenhagen, Denmark	Denmark	Independent Assurance
Ricardo GmbH*	Güglingstraße 66, 73529, Schwäbisch Gmünd, Germany	Germany	Automotive & Industrial Consulting and Business Development
Ricardo Strategic Consulting GmbH	Güglingstraße 66, 73529, Schwäbisch Gmünd, Germany	Germany	Strategic Consulting and Environmental Consulting
E3 Modelling SA (93%)(3)	70-72 Panormou st., Athens 115 23, -Greece	Greece	Energy & Environmental Consulting
Ricardo Hong Kong Limited	Room 12101, 12/F, YF, Life Tower, 33 Lockhart Road, Wanchai, Hong Kong	Hong Kong	Rail Consulting
Ricardo India Private Limited(4)	306, Corporate One Building, Plot No. 5, Jasola District Centre, New Delhi 110025, India	India	Business Development, Strategic Consulting and Environmental Consulting
Ricardo Italia s.r.l.	Via Giovanni Pascoli 47, 47853, Cerasolo, Coriano, Rimini, Italy	Italy	Automotive & Industrial Consulting
Ricardo Japan K.K.*	18th Floor, Shin Yokohama Square Building, 2-3-12 Shin Yokohama, Kohoku-ku, Yokohama-shi, Kanagawa, 222-0033, Japan	Japan	Rail Consulting and Business Development
Ricardo Nederland B.V.	Daalsesingel 51A, 3511 SW, Utrecht, The Netherlands	Netherlands	Rail Consulting
Ricardo Certification B.V.	Daalsesingel 51A, 3511 SW, Utrecht, The Netherlands	Netherlands	Independent Assurance
Ricardo Technical Consultancy LLC (49%)(5)	Palm Tower, Block B, 15th Floor, P.O. Box 26600, West Bay, Doha, Qatar	Qatar	Independent Assurance
Ricardo Environment Arabia LLC(6)	Bahrain Tower, Building Number 8953, 2393, King Fahd Road, Olaya, 12214, Kingdom of Saudi Arabia	Saudi Arabia	Dormant
Ricardo-AEA Limited Saudi Branch	Bahrain Tower, 2nd Floor, King Fahad Road, PO Box 8953, Riyadh, 12214-2393 Kingdom of Saudi Arabia	Saudi Arabia	Dormant

37. Related undertakings of the Group (continued)

Subsidiary or related undertaking	Registered office	Country	Principal activities
Ricardo Singapore Pte Limited	141 Middle Road, 5-6 GSM Building, 188976, Singapore	Singapore	Rail Consulting
Ricardo South Africa (Pty) Ltd (formerly PPA Energy (Pty) Ltd)	111 Pretoria Road, Rynfield, Benoni, Johannesburg, 1501, South Africa	South Africa	Energy & Environmental Consulting
Ricardo Consulting SL	Agustín de Foxá 29, 9B, 28036, Madrid, Spain	Spain	Energy & Environmental Consulting and Rail Consulting
Ricardo Certification Iberia SL	Agustín de Foxá 29, 9B, 28036, Madrid, Spain	Spain	Independent Assurance
Ricardo Rail (Taiwan) Ltd	11F-2 (Westside), No.51, Hengyang Rd., Zhongzheng Dist., Taipei City 10045, Taiwan (R.O.C.)	Taiwan	Independent Assurance
Ricardo (Thailand) Ltd (49%)(7)	140/36 ITF Tower 17th Floor, Silom Road, Kwang Surawong, Khet bangrak, Bangkok, 10500, Thailand	Thailand	In Liquidation
Ricardo Gulf Technical Consultancy LLC (49%)(8)	Abu Dhabi Island, Corniche Street, G5, Block 17, Floor 11, Office 1108, Unit Building / Mesmak Real Estate Company, United Arab Emirates	UAE	Energy & Environmental Consulting
Ricardo Defense Systems LLC	35860 Beattie Dr, Sterling heights, Michigan, 48312, United States	USA	Defence Manufacture
Ricardo Defense, Inc.	175 Cremona Drive, Suite 140, Goleta, California, 93117, United States	USA	Defence Consulting
C2D Joint Venture (33.3%)(9)	175 Cremona Drive, Suite 140, Goleta, California, 93117, United States	USA	Defence Consulting
Ricardo, Inc.	Detroit Technical Campus, 40000 Ricardo Drive, Van Buren Township, Detroit, Michigan, 48111-1641, United States	USA	Automotive & Industrial Consulting, Strategic Consulting and Rail Consulting
Ricardo US Holdings, Inc.	Detroit Technical Campus, 40000 Ricardo Drive, Van Buren Township, Detroit, Michigan, 48111-1641, United States	USA	Holding Company
Ricardo Real Estate LLC	Detroit Technical Campus, 40000 Ricardo Drive, Van Buren Township, Detroit, Michigan, 48111-1641, United States	USA	Property Investment Company
Ricardo Software, Inc.	Detroit Technical Campus, 40000 Ricardo Drive, Van Buren Township, Detroit, Michigan, 48111-1641, United States	USA	Dormant
CDQ Joint Venture (50%)(10)	175 Cremona Drive, Suite 140, Goleta, California, 93117, United States	USA	Dormant

* Wholly owned direct subsidiary of Ricardo plc
† Registered in England and Wales
∞ These companies have claimed exemption from audit per 479A of the Companies Act 2006.
(1) While 93% of the Share Capital of E3 Modelling SA is owned by Ricardo Investments Limited, the commitment to purchase the remaining 7% shareholding is considered to give rise to a financial liability and therefore no non-controlling interest is recognised in respect of this investment – see **Note 14**.
(2) 60% owned by Ricardo Beijing Company Limited; 40% owned by Chongqing Science & Technology Testing Center Limited.
(3) While 90% of the Share Capital of Aither Pty Ltd is owned by Ricardo Australia Pty Ltd, the commitment to purchase the remaining 10% shareholding is considered to give rise to a financial liability and therefore no non-controlling interest is recognised in respect of this investment – see **Note 14**.
(4) 99% owned by Ricardo plc; 1% owned by Ricardo UK Limited.
(5) 49% of share capital and 97% of retained earnings owned by Ricardo Rail Limited; 51% of share capital and 3% of retained earnings owned by Pro-Partnership LLC.
(6) 15% owned by Ricardo plc; 85% owned by Ricardo-AEA Limited.
(7) 49% of share capital and 92.5% of retained earnings owned by Ricardo Hong Kong Limited; 51% of share capital and 7.5% of retained earning owned by First Asia Industries Limited.
(8) 49% of share capital and 80% of retained earnings owned by Ricardo-AEA Limited; 51% of share capital and 20% of retained earnings owned by SSD Commercial Investment
(9) 33.3% owned by Ricardo Defense, Inc.; 33.3% owned by DG Technologies; 33.3% owned by Claxton Logistics Services LLC.
(10) 50% owned by Ricardo Defense, Inc.; 50% owned by DG Technologies.

37. Related undertakings of the Group (continued)

In the opinion of the Directors, the comprehensive income for the year and equity at the reporting date which is attributable to non-controlling interests is not considered to be material. Non-controlling interests are set out above in Footnotes (1) to (10).

38. Related parties' transactions

Key management personnel are the Board of Directors, together with the Managing Directors who have the authority and responsibility for planning, directing and controlling the Group's activities and resources within the market sectors in which the Group operates. This is set out in **Note 33**.

The remuneration received by all Executive and Non-Executive Directors during the year is disclosed in the Directors' Remuneration Report on **page 138**.

The Ricardo Pension Scheme (Trustees) Limited is a related party to the Group. Amounts paid to the Group's retirement payments are set out in **Note 34**.

39. Events after the reporting date

There were no events to report after the reporting date.

COMPANY PRIMARY STATEMENTS

COMPANY STATEMENT OF FINANCIAL POSITION OF RICARDO PLC
AS AT 30 JUNE

	Note	2023 £m	2022 £m
Assets			
Non-current assets			
Intangible assets	2	0.4	0.7
Property, plant and equipment	3	3.9	4.1
Right-of-use assets	4	5.8	5.2
Retirement benefit surplus	11c	12.6	15.2
Investments	5	103.1	103.1
Other receivables	7	116.4	115.0
Deferred tax assets	6	1.6	1.5
		243.8	244.8
Current assets			
Other receivables	7	24.1	22.2
Derivative financial assets	11f	2.3	0.8
Current tax assets		0.3	–
Cash and cash equivalents		1.9	2.1
		28.6	25.1
Total assets		272.4	269.9
Liabilities			
Current liabilities			
Borrowings	8	4.2	6.7
Lease liabilities	9	0.9	0.8
Trade and other payables	10	114.3	98.0
Current tax liabilities		–	0.3
Derivative financial liabilities	11f	1.0	5.1
		120.4	110.9
Net current liabilities		(91.8)	(85.8)
Non-current liabilities			
Lease liabilities	9	6.1	5.7
Deferred tax liabilities	6	4.1	4.9
		10.2	10.6
Total liabilities		130.6	121.5
Net assets		141.8	148.4
Equity			
Share capital		15.6	15.6
Share premium		16.8	16.8
Other reserves		23.5	23.5
Retained earnings		85.9	92.5
Total equity		141.8	148.4

The Ricardo plc Company statement of financial position has been prepared in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework (FRS 101). The notes on pages 273 to 281 form an integral part of these financial statements.

The Company has not presented its own Income Statement and Statement of Comprehensive Income as permitted by Section 408 of the Companies Act 2006. The Company's profit for the year was £1.9m (2022: £13.0m). The financial statements of Ricardo plc (registered number 222915) on pages 271 to 281 were approved by the Board of Directors on 12 September 2023 and signed on its behalf by:

GRAHAM RITCHIE
CHIEF EXECUTIVE OFFICER

IAN GIBSON
CHIEF FINANCIAL OFFICER

COMPANY STATEMENT OF CHANGES IN EQUITY OF RICARDO PLC
FOR THE YEAR ENDED 30 JUNE

	Share capital £m	Share premium £m	Other reserves £m	Retained earnings £m	Total £m
At 1 July 2021	15.6	16.8	23.5	79.9	135.8
Profit for the year	–	–	–	13.0	13.0
Other comprehensive income for the year	–	–	–	3.1	3.1
Total comprehensive income for the year	–	–	–	16.1	16.1
Equity-settled transactions	–	–	–	1.7	1.7
Purchases of own shares to settle awards	–	–	–	(0.2)	(0.2)
Ordinary share dividends	–	–	–	(5.0)	(5.0)
At 30 June 2022	15.6	16.8	23.5	92.5	148.4
At 1 July 2022	**15.6**	**16.8**	**23.5**	**92.5**	**148.4**
Profit for the year	**–**	**–**	**–**	**1.9**	**1.9**
Other comprehensive expense for the year	**–**	**–**	**–**	**(3.8)**	**(3.8)**
Total comprehensive expense for the year	**–**	**–**	**–**	**(1.9)**	**(1.9)**
Equity-settled transactions	**–**	**–**	**–**	**1.4**	**1.4**
Purchases of own shares to settle awards	**–**	**–**	**–**	**(0.1)**	**(0.1)**
Tax relating to share option schemes	**–**	**–**	**–**	**0.7**	**0.7**
Ordinary share dividends	**–**	**–**	**–**	**(6.7)**	**(6.7)**
At 30 June 2023	**15.6**	**16.8**	**23.5**	**85.9**	**141.8**

COMPANY NOTES TO THE FINANCIAL STATEMENTS OF RICARDO PLC

1. Principal accounting policies

Basis of preparation

Notwithstanding net current liabilities of £91.8m (2022: £85.8m) the financial statements of Ricardo plc have been prepared on a going concern basis, as discussed in the viability statement on **page 108**. These financial statements were prepared in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework ("FRS 101"). In preparing these financial statements, the Company applies the recognition, measurement and disclosure requirements of UK-adopted international accounting standards in conformity with the requirements of the Companies Act 2006 but makes amendments where necessary in order to comply with Companies Act 2006 and has set out below where advantage of the FRS 101 disclosure exemptions has been taken. The accounting policies set out below have been applied consistently to all years presented in these financial statements. The following exemptions available under FRS 101 have been applied:

- Paragraphs 45(b) and 46 to 52 of IFRS 2 Share-based Payment (details 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).
- 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; and
  - paragraph 118(e) of IAS 38 Intangible Assets.
- The following paragraphs of IAS 1 Presentation of financial statements:
  - 10(d) (statement of cash flows);
  - 16 (statement of compliance with all IFRS);
  - 38(a) (requirement for minimum of two primary statements, including cash flow statements);
  - 38(b)-(d) (additional comparative information);
  - 111 (cash flow statement information); and
  - 134–136 (capital management disclosures).
- IAS 7 Statement of Cash Flows (the Company has not published its individual cash flow statement as its liquidity, solvency and financial adaptability are dependent on the Group rather than its own cash flows).
- Paragraphs 30 and 31 of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors (requirement for the disclosure of information when an entity has not applied a new IFRS that has been issued and is not yet effective).
- Paragraph 17 of IAS 24 Related Party Disclosures (key management compensation) and the requirements of IAS 24 Related Party Disclosures to disclose related party transactions entered into between two or more members of the Group, provided that any subsidiary which is party to the transaction is wholly-owned by such a member.

Significant accounting policies

The significant accounting policies applied in the preparation of these individual financial statements are set out below. These policies have been applied consistently to all the years presented, unless otherwise stated.

1. Principal accounting policies (continued)

Investments

Investments in subsidiaries are stated at cost less any impairment in value. The Company evaluates the carrying value of investments at the end of each financial year to determine if there has been an impairment in value, which would result in the inability to recover the carrying amount. When it is determined that the carrying value exceeds the recoverable amount, the excess is written-off to comprehensive income.

Amounts owed by subsidiary undertakings

The majority of the Company's financial assets are amounts owed by subsidiary undertakings. These are measured initially at fair value, and subsequently at amortised cost. The general approach is applied to the impairment of financial assets, recognising a loss allowance for expected credit losses (ECL). Where the credit risk has not increased significantly since initial recognition the loss allowance are measured as 12-month ECL. For balances repayable on demand, or where the credit risk has increased significantly since initial recognition, a lifetime ECL is measured. ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Company expects to receive, therefore considering future expectations). ECLs are discounted at the effective interest rate of the financial asset.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECL, the Company considers the available cash and cash equivalents within the subsidiary, the net current assets of the undertaking and future cash generation.

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 subsidiary has entered liquidation proceedings, or no reasonable expectation that sufficient future cash generation to repay the loan will occur in the subsidiary undertaking.

Other significant accounting policies

Other significant accounting policies are consistent with the Group financial statements.

Judgements in applying accounting policies and key sources of estimation uncertainties

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. The key area of judgment that has the most significant effect on the amounts recognised in the financial statements is the review of financial assets for impairment. Management has applied judgement to when determining the credit risk of fellow Group undertakings and their ability to repay loans.

The area involving significant risk of a material adjustment to the carrying amounts of assets and liabilities due to estimate uncertainty within the next financial year is the Company's defined benefit obligation. This risk is the same as that of the Group and is explained in **Note 1(d)** to the Group financial statements. Another area of estimation uncertainty is management's assessment of the Company's investments to determine whether an indicator of impairment exists. Where applicable, management then evaluates the carrying value of investments against their value in use to determine if there has been an impairment in value, which would result in the inability to recover the carrying amount. The value in use is estimated using a discounted cash flow methodology. A pre-tax discount rate is used to discount the cash flows, which are derived from externally sourced data reflecting the current market assessment of these investments.

1. Principal accounting policies (continued)

The basis for the projected cash flows is the Group's five-year plan, which is prepared by management and reviewed and approved by the Board. The plan reflects past experience and management's assessment of the current contract portfolio, contract wins, contract retention, price increases, and gross margin, as well as future expected market trends. Cash flows after the five-year plan are projected into perpetuity using a growth rate based on inflation and an average long-term economic growth rate for the territory.

Changes in accounting policies

Several other standards, interpretations and amendments to existing standards became effective on 1 July 2021 as detailed in **Note 1(z)** to the Group financial statements; none of these had a material impact on the Company.

2. Intangible assets

	Software £m
Cost	
At 1 July 2021	9.7
Disposals	(0.2)
At 30 June 2022	9.5
At 1 July 2022	**9.5**
Disposals	**(0.8)**
At 30 June 2023	**8.7**
Accumulated amortisation	
At 1 July 2021	8.6
Charge for the period	0.4
Disposals	(0.2)
At 30 June 2022	8.8
At 1 July 2022	**8.8**
Charge for the period	**0.3**
Disposals	**(0.8)**
At 30 June 2023	**8.3**
Net book value	
At 1 July 2021	1.1
At 30 June 2022	0.7
At 30 June 2023	**0.4**

Software includes £nil (2021: £0.1m) in respect of assets under construction which are not being amortised until the assets are made available for use.

3. Property, plant and equipment

	Land and property £m	Fixtures, fittings and equipment £m	Total £m
Cost			
At 1 July 2021	6.7	1.4	8.1
At 30 June 2022	6.7	1.4	8.1
At 1 July 2022	**6.7**	**1.4**	**8.1**
At 30 June 2023	**6.7**	**1.4**	**8.1**
Accumulated depreciation and impairment			
At 1 July 2021	2.9	0.7	3.6
Charge for the period	0.2	0.2	0.4
At 30 June 2022	3.1	0.9	4.0
At 1 July 2022	**3.1**	**0.9**	**4.0**
Charge for the period	**0.1**	**0.1**	**0.2**
At 30 June 2023	**3.2**	**1.0**	**4.2**
Net book value			
At 1 July 2021	3.8	0.7	4.5
At 30 June 2022	3.6	0.5	4.1
At 30 June 2023	**3.5**	**0.4**	**3.9**

A contingent liability of up to £2.8m which is associated with a guarantee provided to the Ricardo Group Pension Fund in July 2013 is secured on specific land and buildings. Further detail is given in **Note 36** to the Group financial statements.

4. Leases

a) As a lessee

The Company leases one office premises and technical centre, with a remaining lease term of 3 years. The lease agreement does not impose any covenants. The leased asset may not be used as security for borrowing purposes.

Right-of-use assets

	Property £m	Motor Vehicles £m	Total £m
Cost			
At 1 July 2021	7.6	–	7.6
Additions	–	0.1	0.1
At 30 June 2022	7.6	0.1	7.7
At 1 July 2022	**7.6**	**0.1**	**7.7**
Additions	**–**	**0.1**	**0.1**
Remeasurements	**1.1**	**–**	**1.1**
At 30 June 2023	**8.7**	**0.2**	**8.9**
Accumulated depreciation and impairment			
At 1 July 2021	1.9	–	1.9
Charge for the period	0.6	–	0.6
At 30 June 2022	2.5	–	2.5
At 1 July 2022	**2.5**	**–**	**2.5**
Charge for the period	**0.6**	**–**	**0.6**
At 30 June 2023	**3.1**	**–**	**3.1**
Net book value			
At 1 July 2021	5.7	–	5.7
At 30 June 2022	5.1	0.1	5.2
At 30 June 2023	**5.6**	**0.2**	**5.8**

See **Note 9** Lease liabilities for details of the associated lease liabilities.

b) As a lessor

The Company subleases part of its right of use property with a remaining term of 3 years. This lease is classified as an operating lease.

During the year the Company recognised rental income of £0.4m (2022: £0.3m) on these subleases.

The following table sets out a maturity analysis of lease payments, showing the undiscounted lease payments to be received after the reporting date.

Operating lease	2023 £m	2022 £m
Less than one year	**0.4**	0.4
One to five years	**1.6**	1.0
Total	**2.0**	1.4

5. Investments

	Shares in subsidiaries £m
Cost and Net Book Value	
At 1 July 2021	103.1
At 30 June 2022	103.1
At 1 July 2022	**103.1**
At 30 June 2023	**103.1**

The Directors consider that the fair value of investments is not less than the carrying value. Details of the Company's subsidiaries and related undertakings are shown in **Note 37** to the Group financial statements.

6. Deferred tax

Movement in deferred tax balance	2023 £m	2022 £m
At 1 July	**(3.4)**	(0.9)
Charged to income statement	**(1.0)**	(0.5)
Credited/(charged) to other comprehensive income	**1.2**	(2.0)
Credited directly to equity	**0.7**	–
At 30 June	**(2.5)**	(3.4)

Balance comprised of:	2023 £m	2022 £m
Accelerated capital allowances	**(0.3)**	(0.3)
Defined benefit obligation	**(3.3)**	(3.9)
Tax losses and credits	**(0.3)**	0.3
Unrealised capital gains	**(0.6)**	(0.6)
Other	**2.0**	1.1
At 30 June	**(2.5)**	(3.4)

Non-current:	2023 £m	2022 £m
Assets	**1.6**	1.5
Liabilities	**(4.1)**	(4.9)
At 30 June	**(2.5)**	(3.4)

7. Other receivables

	2023 £m	2022 £m
Amounts owed by subsidiaries	**137.2**	134.3
Prepayments	**1.8**	1.5
Other receivables	**1.5**	1.4
At 30 June	**140.5**	137.2
Current	**24.1**	22.2
Non-current	**116.4**	115.0
At 30 June	**140.5**	137.2

£17.4m (2022: £9.8m) of the amounts owed by subsidiaries are due for repayment within the next 12 months and the remaining £119.8m (2022: £124.5m) have no fixed repayment date.

Non-current trade and other receivables consist of amounts owed by subsidiaries which are neither planned nor likely to be settled in the foreseeable future. £108.8m (2022: £113.8m) of the amounts owed by subsidiaries carry interest at rates between 2.0% and 5.0% (2022: 2.0% and 5.0%) with the remaining £28.4m (2022: £20.5m) being interest-free. All amounts owed by subsidiaries are unsecured, and expected credit losses are considered to be immaterial.

8. Borrowings

	2023 £m	2022 £m
Current liabilities – borrowings		
Bank overdrafts repayable on demand	**4.2**	6.7
At 30 June	**4.2**	6.7

The Company has the same banking facilities as the Group. See **Note 25** to the Group financial statements.

9. Lease liabilities

Movement in lease liability	2023 £m	2022 £m
At 1 July	**6.5**	6.9
Additions	**0.1**	0.1
Remeasurement	**1.1**	–
Interest	**0.3**	0.3
Payments	**(1.0)**	(0.8)
At 30 June	**7.0**	6.5

	2023 £m	2022 £m
Current liabilities – maturing within one year	**0.9**	0.8
Non-current liabilities – maturing after one year	**6.1**	5.7
At 30 June	**7.0**	6.5

9. Lease liabilities (continued)

Maturity of undiscounted lease liability	2023 £m	2022 £m
Within one year	**1.0**	0.8
Between one and five years	**3.8**	3.2
After five years	**3.7**	4.0
Finance portion of net liability	**(1.5)**	(1.5)
At 30 June	**7.0**	6.5

10. Trade and other payables

	2023 £m	2022 £m
Trade payables	**0.8**	0.4
Tax and social security payable	**0.9**	0.6
Amounts owed to subsidiaries	**108.8**	92.8
Accruals	**3.6**	4.1
Other payables	**0.2**	0.1
At 30 June	**114.3**	98.0

All amounts owed to subsidiaries are unsecured. £104.1m (2022: £86.0m) of the amounts owed to subsidiaries carry interest at rates between 2.0% and 5.0% (2022: 2.0% and 3.1%) and have no fixed repayment date. £4.7m (2022: £6.8m) of the amounts owed to subsidiaries are interest-free and due for repayment within the next 12 months.

11. Other information

(a) Company audit fee

Fees payable to the Company's auditor for the audit of the Company's annual financial statements totalled £0.9m (2022: £0.8m). Fees payable to KPMG LLP and its associates for non-audit services to the Company are not required to be disclosed because the Group financial statements disclose such fees on a consolidated basis (see Note 11 to the Group financial statements).

(b) Director's emoluments

The remuneration received by all Executive and Non-Executive Directors during the year is disclosed in the Directors' Remuneration Report on page 137.

(c) Employees and defined benefit obligation

During the year the Company employed an average of 51 (2022: 50) employees.

The Company operates a defined benefit pension scheme, the Ricardo Group Pension Fund (RGPF). This is disclosed in Note 34 to the Group financial statements together with the accounting policy and key accounting estimates.

(d) Share capital, share premium and other reserves

See Notes 29 and 30 to the Group financial statements.

11. Other information (continued)

(e) Contingent liabilities

Contingent liabilities exist in the form of guarantees provided in the ordinary course of business to certain subsidiaries to give assurance of their contractual and financial commitments. None of these arrangements are expected to give rise to any material cost to the Company.

In July 2013, a guarantee was provided to the Ricardo Group Pension Fund (RGPF) of £2.8m in respect of certain contingent liabilities that may arise, which have been secured on specific land and buildings. The outcome of this matter is not expected to give rise to any material cost to the Group. In October 2018, a further guarantee was provided to the RGPF for an amount that shall not exceed the employers' liability were a debt to arise under Section 75 of the Pensions Act 1995. In November 2021 the guarantee was extended for a further 3 years and will now terminate on 5 April 2026. The outcome of this matter is not expected to give rise to any material cost to the Group on the basis that the Group continues as a going concern.

(f) Derivative financial assets and liabilities

The Company has the same derivative financial assets and liabilities as the Group. These are disclosed in Note 27 to the Group financial statements.

(g) Related party transactions

The Company has taken the exception under FRS 101 not to disclose related party transactions entered into between two or more members of the Group, nor to disclose key management compensation. Directors' emoluments are referenced in **Note 11(b)**.

OTHER INFORMATION

CORPORATE INFORMATION

Group General Counsel and Company Secretary
Harpreet Sagoo

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Registered Company number
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The Registry
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Independent auditors
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E14 5GL

Stockbrokers
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25 Ropemaker Street
London EC2Y 9LY
Tel: 0203 100 2000

Website: www.ricardo.com/en
A PDF version of this Annual Report & Accounts can be downloaded from the Investors page of our website.

Key dates
Annual General Meeting: 16 November 2023

Shareholder services
Link Asset Services provide a share portal service, which allows shareholders to access a variety of services online, including: viewing shareholdings; buying and selling shares online; registering change of address details; and bank mandates to have dividends paid directly into your bank account. Any shareholder who wishes to register with Link Asset Services to take advantage of this service should visit **www.linkassetservices.com/shareholders**

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Financial advisors
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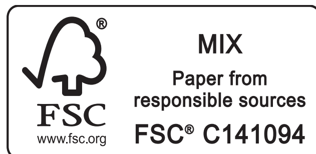
London
EC4P 4DU

GLOSSARY

Term	Definition
Cash conversion	Statutory cash conversion is calculated as cash generated from operations divided by earnings before interest, tax, depreciation and amortisation (EBITDA)
Constant currency organic growth/ decline	The Group generates revenues and profits in various territories and currencies because of its international footprint. Those results are translated on consolidation at the foreign exchange rates prevailing at the time. Constant currency organic growth/decline is calculated by translating the result for the current year using foreign currency exchange rates applicable to the prior year. This provides an indication of the growth/decline of the business, excluding the impact of foreign exchange.
EBITDA	Earnings before interest, tax, depreciation, impairment and amortisation
ESG	Environmental, Social and Governance
FY	Financial Year
GHG	Greenhouse gases
Headcount	Headcount is calculated as the number of colleagues on the payroll at the reporting date and includes subcontractors on a full-time equivalent basis.
ISO 9001	International standard for Quality Management Systems
ISO 14001	International standard for Environmental Management Systems
ISO 27001	International standard for Information Security Management Systems
ISO 45001	International standard for Occupational Health and Safety Management Systems
Net debt	Net debt is defined as current and non-current borrowings less cash and cash equivalents, including hire purchase agreements, but excluding IFRS 16 lease liabilities. Management believes this definition is the most appropriate for monitoring the indebtedness of the Group and is consistent with the treatment in the Group's banking agreements.
Order book	The value of all unworked purchase orders and contracts received from clients at the reporting date, providing an indication of revenue that has been secured and will be recognised in future accounting periods.
Order intake	The value of purchase orders and contracts received from clients during the period.
Organic growth/ decline	Organic growth/decline is calculated as the decline in the result for the current year compared to the prior year, after adjusting for the performance of acquisitions or disposals, to include the results of those acquisitions for an equivalent period in each financial year.
Organic result	The organic result for the prior year includes the performance of acquisitions for an equivalent period to FY 2019/20.
REEP	Ricardo Energy, Environment and Planning, formerly PLC Consulting Pty Ltd, acquired 31 July 2019
RRA	Ricardo Rail Australia, formerly Transport Engineering Pty Ltd, acquired 31 May 2019
SBTi	Science Based Targets initiative.
Scope 1 Emissions	Direct emissions from owned or controlled sources
Scope 2 Emissions	Indirect emissions from the generation of purchased energy.
Scope 3 Emissions	All indirect emissions (not included in scope 2) that occur in the value chain, including both upstream and downstream emissions.
TCFD	Task Force on Climate-Related Financial Disclosures: An organisation of 31 members aiming to develop guidelines for voluntary climate-centred financial disclosures across industries.
Underlying	Underlying measures exclude the impact on statutory measures of specific adjusting items. Underlying measures are considered to provide a more useful indication of underlying performance and trends over time.



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