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3 March 2023

Dear Sirs/Mesdames

Dowlais Group plc and, together with its subsidiaries, the "Group"

We report on the financial information of the Dowlais Group for the years ended 31 December 2020, 31 December 2021 and 31 December 2022 set out in Part B of Part XII of the prospectus dated 3 March 2023 of Dowlais Group plc (the "Company") (the "Prospectus"). This report is required by Annex 1 item 18.3.1 of the UK version of the Commission delegated regulation (EU) No 2019/980 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018, as amended (the "Prospectus Delegated Regulation") and is given for the purpose of complying with that requirement and for no other purpose.

Opinion on financial information

In our opinion, the financial information gives, for the purposes of the Prospectus, a true and fair view of the state of affairs of the Dowlais Group as at 31 December 2020, 31 December 2021 and 31 December 2022 and of its profits, cash flows and changes in equity and statement of comprehensive income for the years then ended in accordance with the basis of preparation set out in Note 1.1 to the financial information.

Responsibilities

As described in Note 1 the Directors of the Company are responsible for preparing the financial information on the basis of preparation set out in Note 1.1 to the financial information.

It is our responsibility to form an opinion on the financial information and to report our opinion to you.

Save for any responsibility arising under Prospectus Regulation Rule 5.3.2R(2)(f) to any person as and to the extent there provided, to the fullest extent permitted by law we do not assume any responsibility and will not accept any liability to any other person for any loss suffered by any such other person as a result of, arising out of, or in connection with this report or our statement, required by and given solely for the purposes of complying with Annex 1 item 1.3 of the Prospectus Delegated Regulation, consenting to its inclusion in the Prospectus.

Basis of preparation

This financial information has been prepared for inclusion in the Prospectus on the basis of the accounting policies set out in Note 1.1 to the financial information.

Basis of opinion

We conducted our work in accordance with Standards for Investment Reporting issued by the Financial Reporting Council ("FRC") in the United Kingdom. We are independent of the Company and the Dowlais Group in accordance with the FRC's Ethical Standard as applied to Investment Circular Reporting Engagements, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. It also included an assessment of significant estimates and judgments made by those responsible for the preparation of the financial information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial information is free from material misstatement whether caused by fraud or other irregularity or error.

Our work has not been carried out in accordance with auditing or other standards and practices generally accepted in jurisdictions outside the United Kingdom, including the United States of America, and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

Conclusions Relating to Going Concern

In performing this engagement on the financial information, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial information is appropriate.

Declaration

For the purposes of Prospectus Regulation Rule 5.3.2R(2)(f), we are responsible for this report as part of the Prospectus and declare that to the best of our knowledge the information contained in this report is, in accordance with the facts and that the report makes no omission likely to affect its import. This declaration is included in the Prospectus in compliance with Annex 1 item 1.2 of the Prospectus Delegated Regulation and for no other purpose.

Yours faithfully

Deloitte LLP

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 1 New Street Square, London, EC4A 3HQ, United Kingdom.

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PART B: HISTORICAL FINANCIAL INFORMATION

Carve-out Income Statement

	Notes	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
		£m	**£m**	**£m**
Revenue	4, 5	**4,595**	4,123	4,126
Cost of sales		**(3,937)**	(3,542)	(3,656)
Gross profit		**658**	581	470
Share of results of equity accounted investments	12	**49**	38	32
Net operating expenses	7	**(649)**	(740)	(758)
Operating profit/(loss)	5, 6	**58**	(121)	(256)
Finance costs	7	**(272)**	(208)	(107)
Finance income	7	**151**	75	139
Loss before tax		**(63)**	(254)	(224)
Tax	8	**(14)**	(44)	28
Loss after tax for the year		**(77)**	(298)	(196)
Attributable to:				
Owners of the Ultimate Parent		**(82)**	(302)	(199)
Non-controlling interests		**5**	4	3
		(77)	(298)	(196)
Adjusted[(1)] results				
Adjusted revenue	5	**5,246**	4,731	4,711
Adjusted operating profit	5, 6	**333**	242	104
Adjusted profit before tax	6	**297**	204	51
Adjusted profit after tax	6	**218**	155	31

(1) Defined in the summary of significant accounting policies (note 2).

Carve-out Statement of Comprehensive Income

	Notes	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
		£m	£m	£m
Loss after tax for the year		**(77)**	(298)	(196)
Items that will not be reclassified subsequently to the Carve-out Income Statement:				
Net remeasurement gain on retirement benefit obligations	20	**72**	120	62
Income tax charge relating to items that will not be reclassified	8	**(27)**	(27)	(8)
		45	93	54
Items that may be reclassified subsequently to the Carve-out Income Statement:				
Currency translation		**272**	(110)	(20)
Share of other comprehensive income from equity accounted investments		**12**	14	15
Income tax (charge)/credit relating to items that may be reclassified	8	(12)	(1)	8
		272	(97)	3
Other comprehensive income/(expense) for the year		**317**	(4)	57
Total comprehensive income/(expense) for the year		**240**	(302)	(139)
Attributable to:				
Owners of the Ultimate Parent		**234**	(306)	(142)
Non-controlling interests		**6**	4	3
		240	(302)	(139)

Carve-out Statement of Cash Flows

	Notes	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
		£m	**£m**	**£m**
Net cash from operating activities	23	**210**	223	390
Investing activities				
Disposal of businesses, net of cash disposed		**—**	(13)	—
Purchase of property, plant and equipment		**(202)**	(155)	(173)
Proceeds from disposal of property, plant and equipment and intangible assets		**23**	9	7
Purchase of computer software and capitalised development costs		**(20)**	(13)	(12)
Dividends received from equity accounted investments	12	**59**	52	54
Acquisition of subsidiaries, net of cash acquired	10	**—**	—	(19)
Interest received		**3**	5	3
Net cash used in investing activities		**(137)**	(115)	(140)
Financing activities				
Repayment of loans with Related Parties[1]		**(78)**	—	(339)
Drawings on loans with Related Parties[1]		**—**	48	—
Repayment of principal under lease obligations	24	**(22)**	(22)	(25)
Net cash (used in)/from financing activities		**(100)**	26	(364)
Net (decrease)/increase in cash and cash equivalents, net of bank overdrafts		**(27)**	134	(114)
Cash and cash equivalents, net of bank overdrafts at the beginning of the year	23	**275**	141	255
Effect of foreign exchange rate changes		15	—	—
Cash and cash equivalents, net of bank overdrafts at the end of the year	23	**263**	275	141

(1) Related Parties comprise the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent.

Carve-out Balance Sheet

	Notes	31 December 2022	31 December 2021	31 December 2020
		£m	£m	£m
Non-current assets				
Goodwill and other intangible assets	9	**3,075**	3,098	3,382
Property, plant and equipment	11	**1,813**	1,742	1,972
Interests in equity accounted investments	12	**424**	422	422
Loans receivable from Related Parties[1]	17	**2,826**	3,378	3,295
Deferred tax assets	19	**99**	87	141
Derivative financial assets	21	**9**	1	3
Retirement benefit surplus	20	**42**	75	—
Other receivables	14	**21**	11	7
		8,309	8,814	9,222
Current assets				
Inventories	13	**498**	436	437
Trade and other receivables	14	**638**	505	607
Derivative financial assets	21	**24**	7	10
Current tax assets		**20**	7	14
Cash and cash equivalents	15	**270**	275	141
		1,450	1,230	1,209
Total assets	5	**9,759**	10,044	10,431
Current liabilities				
Trade and other payables	16	**1,188**	1,008	1,131
Loans payable to Related Parties[1]	17	**2,176**	2,547	2,602
Lease obligations	24	**25**	23	23
Derivative financial liabilities	21	**10**	77	8
Current tax liabilities		**109**	111	120
Provisions	18	**140**	173	207
		3,648	3,939	4,091
Net current liabilities		**(2,198)**	(2,709)	(2,882)
Non-current liabilities				
Other payables	16	**28**	26	13
Lease obligations	24	**134**	140	149
Derivative financial liabilities	21	**2**	3	82
Deferred tax liabilities	19	**293**	268	260
Retirement benefit obligations	20	**503**	603	748
Provisions	18	**186**	230	284
		1,146	1,270	1,536
Total liabilities	5	**4,794**	5,209	5,627
Net assets		**4,965**	4,835	4,804
Invested capital				
Net investment by the Ultimate Parent		**4,885**	5,032	4,908
Translation reserve	22	**41**	(230)	(133)
Equity attributable to owners of the Ultimate Parent		**4,926**	4,802	4,775
Non-controlling interests		**39**	33	29
Total invested capital		**4,965**	4,835	4,804

(1) Related Parties comprise the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent.

Carve-out Statement of Changes in Total Invested Capital

	Net investment by the Ultimate Parent	Translation reserve	Equity attributable to owners of the Ultimate Parent	Non-controlling interests	Total invested capital
	£m	£m	£m	£m	£m
At 1 January 2020	5,194	(136)	**5,058**	26	**5,084**
(Loss)/profit for the year	(199)	—	**(199)**	3	**(196)**
Other comprehensive income	54	3	**57**	—	**57**
Total comprehensive (expense)/income	(145)	3	**(142)**	3	**(139)**
Transactions with Related Parties[1]	(141)	—	**(141)**	—	**(141)**
At 31 December 2020	4,908	(133)	**4,775**	29	**4,804**
(Loss)/profit for the year	(302)	—	**(302)**	4	**(298)**
Other comprehensive income/(expense)	93	(97)	**(4)**	—	**(4)**
Total comprehensive (expense)/income	(209)	(97)	**(306)**	4	**(302)**
Dividends paid[2]	(34)	—	**(34)**	—	**(34)**
Transactions with Related Parties[1]	367	—	**367**	—	**367**
At 31 December 2021	5,032	(230)	**4,802**	**33**	**4,835**
(Loss)/profit for the year	(82)	—	**(82)**	5	**(77)**
Other comprehensive income	45	271	**316**	1	**317**
Total comprehensive (expense)/income	(37)	271	**234**	6	**240**
Transactions with Related Parties[1]	(110)	—	**(110)**	—	**(110)**
At 31 December 2022	**4,885**	**41**	**4,926**	**39**	**4,965**

(1) Transactions with Related Parties include the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent and are detailed in Note 25.

(2) Dividends paid to a non-Group entity controlled by the Ultimate Parent.

Notes to the Carve-out Historical Financial Information

1. Corporate information

Dowlais Group plc comprises the GKN Automotive, GKN Powder Metallurgy and GKN Hydrogen businesses along with certain Head Office functions, together referred to as the "Group". GKN Automotive is a global technology and systems engineer which designs, develops, manufactures and integrates an extensive range of driveline technologies, including electric vehicle components. GKN Powder Metallurgy is a global leader in precision powder metal parts for the automotive and industrial sectors, as well as the production of powder metal. GKN Hydrogen, launched in 2021, offers reliable and secure hydrogen storage solutions.

The Historical Financial Information shows an aggregation of these businesses, which have been the operating segments of the Group during the three years ended 31 December 2022. Dowlais Group plc was incorporated as a company in England and Wales on 13 January 2023. As of 3 March 2023, all of the entities within the Group are owned directly or indirectly by Dowlais Group plc. Further details are given on post balance sheet events in Note 27. The ultimate parent company and controlling party is Melrose Industries PLC (the "Ultimate Parent"), a company incorporated in England & Wales.

A list of all entities that are included in the Group is set in Section 1.1 below. Other entities owned by Dowlais Group plc which do not form part of the Group have been excluded.

Corporate structure

During the year ended 31 December 2021, the Group completed the disposal of two non-core entities (one in the Automotive division and one in the Powder Metallurgy division), which have not been treated as discontinued operations as they do not represent separate major lines of business. These disposals were immaterial to the Group.

On 2 January 2020, the Powder Metallurgy division completed the acquisition of Forecast 3D, a leading US specialist in plastic additive manufacturing and 3D printing services offering a full range of services from concept to series production, for initial consideration of £19 million. Further information is detailed in Note 10.

1.1 Basis of preparation

The combined Historical Financial Information of the Group as of and for the years ended 31 December 2020, 2021 and 2022 has been prepared specifically for the purposes of a Prospectus and in accordance with Regulation (EU) 2017/1129 as supplemented by Commission Delegated Regulation (EU) 2019/980 each as they form part of United Kingdom domestic law by virtue of the EU Withdrawal Act 2018 and in accordance with the basis of preparation set out below.

The Group has not constituted a single legal subgroup throughout the periods presented and accordingly the Historical Financial Information presented has been combined through an aggregation of the results, assets, liabilities and equity of the individual entities within the Group. The Historical Financial Information is presented in Pound Sterling.

International Financial Reporting Standards ("IFRS") does not explicitly provide guidance for the preparation of combined Historical Financial Information and accordingly, in preparing the Historical Financial Information certain accounting conventions permitted for the preparation of Historical Financial Information for inclusion in investment circulars as described in the Annexure to Standards for Investment Reporting 2000—Standards for Investment Reporting Applicable to Public Reporting Engagements on Historical Financial Information issued by the Financial Reporting Council of the United Kingdom ("SIR 2000") have been applied where IFRS does not provide specific accounting treatments. The Group has prepared this Historical Financial Information in accordance with IFRS except as disclosed below.

During the reporting periods presented, the Group did not prepare consolidated financial statements as it did not operate as a separate legal group.

The Historical Financial Information reflects the assets, liabilities, revenues, expenses and cash flows of the entities included in the Group. Transactions and account balances related to entities owned by Dowlais Group plc but excluded from the Historical Financial Information, has been recorded against Total Invested Capital during the periods presented.

The following considerations have been applied to this Carve-out Historical Financial Information:

- All transactions and balances between entities included within the Group have been eliminated. Transactions and balances with the Ultimate Parent, or other non-Group entities controlled by the

Ultimate Parent, are classified as related party transactions. Some of these transactions have been recorded through Total Invested Capital as explained in Note 25.

- The Group financed its operations using financing arrangements which are similar in nature to a revolving credit facility, through the Ultimate Parent, and other non-Group entities controlled by the Ultimate Parent. To the extent that an asset, liability, revenue or expense is directly associated with the Group, it is reflected in the Carve-out Historical Financial Information. Because the Group has been part of a wider group of companies controlled by the Ultimate Parent, the Carve-out Historical Financial Information may not reflect the same financing costs had the Group obtained financing on a standalone basis.
- Issued share capital and the share premium accounts of entities that are included in the Group and retained earnings have been aggregated and are classified as the "net investment by the Ultimate Parent", as such in line with SIR 2000 earnings per share is not presented as it would not provide meaningful information.
- The Group's current and deferred taxes were computed on an actual return basis.
- General corporate services historically have been provided by the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent to the Group on a very limited basis, comprising tax and treasury support functions that are directly attributable to the Group have been allocated using appropriate and consistent allocation methods, primarily headcount. Executive Directors of the Group, believe the costs of these services charged to the Group are a reasonable representation of the costs that would have been incurred if the Group had performed these functions on a standalone basis.

This Carve-out Historical Financial Information may not be indicative of the Group's financial performance and does not necessarily reflect what its results of operations, financial position and cash flows would have been had the Group operated as an independent group during the periods presented.

The following entities are fully consolidated within this Carve-out Historical Financial Information:

Entities	Country of incorporation	Equity interest %
G.K.N. Industries Limited	United Kingdom	100%
GKN Firth Cleveland Limited	United Kingdom	100%
GKN Countertrade Ltd	United Kingdom	100%
GKN Sheepbridge Stokes Limited	United Kingdom	100%
GKN Sheepbridge Limited	United Kingdom	100%
GKN Ventures Limited	United Kingdom	100%
G.K.N. Group Services Limited(1)	United Kingdom	100%
GKN Group Pension Trustee (No.2) Limited	United Kingdom	100%
G.K.N. Group Pension Trustee Limited	United Kingdom	100%
GKN Sinter Metals Limited	United Kingdom	100%
G.K.N. Powder Met. Limited	United Kingdom	100%
G.K.N. International Trading (Holdings) Limited(1)	United Kingdom	100%
GKN Powder Metallurgy Holdings Limited	United Kingdom	100%
GKN Sinter Metals Ltda	Brazil	100%
GKN Sinter Istanbul Metal Sanayi Ve Ticaret Ananim Sirketi	Turkey	100%
GKN Sinter Metals Mexico S. De R.L. De. C.V	Mexico	100%
GKN Powder Metallurgy Japan K.K	Japan	100%
GKN Sinter Metals St Thomas Limited	Canada	100%
Hoeganaes Corporation Europe SA	Romania	100%
GKN Sinter Metals Private Limited	India	99.99%
GKN Powder Metallurgy Holdings, Inc	United States of America	100%
Hoeganaes Corporation	United States of America	100%
GKN Sinter Metals LLC	United States of America	100%
GKN Specialty Products Americas Corp	United States of America	100%
Product Slingshot, Inc.	United States of America	100%
GKN Sinter Metals SpA	Italy	100%
GKN Specialty Products Europe SRL	Romania	100%
GKN Sinter Metals Mexico Services S. De R.L. De. C.V	Mexico	100%
GKN Powder Metallurgy Holding GmbH	Germany	100%
GKN Sinter Metals GmbH, Bad Langensalza	Germany	100%

Entities	Country of incorporation	Equity interest %
GKN Powder Metallurgy Engineering GmbH	Germany	100%
GKN Sinter Metals Components GmbH	Germany	100%
GKN Sinter Metals Filters GmbH Radevormwald	Germany	100%
GKN Sinter Metals & Forge Operations GmbH	Germany	100%
GKN U.S. Investments Limited	United Kingdom	100%
GKN USD Investments Limited	United Kingdom	100%
GKN UK Investments Limited	United Kingdom	100%
GKN UK Holdings BV	Netherlands	100%
GKN Driveline Koping AB	Sweden	100%
GKN Automotive Hungary Korlátolt Felelősségű Társaság	Hungary	100%
GKN Overseas Holdings Limited	United Kingdom	100%
Eljas sp. z o.o.	Poland	100%
GKN Driveline Celaya SA de CV	Mexico	100%
GKN Driveline Tochigi Holdings KK	Japan	100%
GKN Driveline Zumaia SA	Spain	100%
GKN Ayra Servicio SA	Spain	100%
GKN Driveline Vigo SA	Spain	100%
GKN Eskisehir Automotive Products Manufacture and Sales AS	Turkey	100%
GKN do Brasil Ltda	Brazil	100%
GKN Driveline Mexico Trading SA de CV	Mexico	100%
GKN Driveline International GmbH	Germany	100%
GKN Driveline Trier GmbH	Germany	100%
GKN Driveline Service GmbH	Germany	100%
GKN Driveline Deutschland GmbH	Germany	100%
GKN Driveline (Thailand) Limited	Thailand	100%
GKN Driveline (India) Limited	India	97.07%
GKN Automotive Management GmbH	Germany	100%
GKN Driveline Malaysia Sdn Bhd	Malaysia	68.42%
GKN China Holding Co. Limited	China	100%
GKN Danyang Industries Company Limited	China	100%
GKN Driveline Slovenja doo	Slovenia	100%
GKN Driveline Brunico SpA	Italy	100%
Dowlais Automotive Limited	United Kingdom	100%
GKN Zhongyuan Cylinder Liner Company Ltd	China	59%
GKN Automotive SAS	France	100%
GKN Driveline Ribemont SARL	France	100%
GKN Freight Services EURL	France	100%
GKN Automotive Management SAS	France	100%
GKN Driveline SA	France	100%
GKN Driveline Polska Sp zoo	Poland	100%
GKN America Corp	United States of America	100%
GKN Driveline Bowling Green Inc.	United States of America	100%
GKN Freight Services Inc.	United States of America	100%
GKN Driveline North America Inc	United States of America	100%
GKN Cylinder Liners LLC	United States of America	100%
XIK LLC	United States of America	100%
GKN North America Services Inc	United States of America	100%
GKN North America Investments Inc	United States of America	100%
GKN Driveline Newton LLC	United States of America	100%
GKN Freight Services Limited	United Kingdom	100%
GKN Automotive Holdings Limited	United Kingdom	100%
GKN Automotive Limited	United Kingdom	100%
GKN EVO eDrive Systems Limited	United Kingdom	100%
GKN Birfield Extrusions Limited	United Kingdom	100%
GKN Driveline Service Limited	United Kingdom	100%
Ball Components Limited	United Kingdom	100%
GKN Automotive Portugal Limitada	Portugal	100%
GKN Hybrid Power Limited	United Kingdom	100%

Entities	Country of incorporation	Equity interest %
GKN Service UK Limited	United Kingdom	100%
GKN Driveline Birmingham Limited	United Kingdom	100%
GKN Driveline UK Limited	United Kingdom	100%
Dowlais Industries Limited	United Kingdom	100%
GKN Marks Limited(1)	United Kingdom	100%
GKN Cylinder Liners UK Limited	United Kingdom	100%
GKN 2 Trustee 2018 Limited	United Kingdom	100%
GKN 3 Trustee 2018 Limited	United Kingdom	100%
GKN Investments III GP Limited	United Kingdom	100%
GKN Investments III LP	United Kingdom	100%
GKN Hydrogen Limited	United Kingdom	100%
GKN Hydrogen GmbH	Germany	100%
GKN Hydrogen Corp	United States of America	100%
GKN Hydrogen SRL	Italy	100%
GKN Hydrogen Italy SRL	Italy	100%
GKN Euro Investments Limited(1)	United Kingdom	100%
Dowlais Group Limited	United Kingdom	100%
GKN Driveline Japan Limited	Japan	100%
GKN Automotive Bengaluru Private Limited	India	100%
GKN Sinter Metals Yizheng Co. Limited	China	100%

(1) Equity interest percentage represents the beneficial interest held as at 31 December 2022, with the legal interest having transferred at a later date following the share register being updated completion of the stamping process. See section 4.2 (*History of the share capital and reorganisation*) of Part XV (*Additional information*) for further details.

The following entities are included as equity accounted or non-controlling investments within this Historical Financial Information:

Entities	Country of incorporation	Equity interest %
Hoeganaes Specialty Metal Powders LLC	United States of America	30%
Taiway Limited	Taiwan	36.25%
GKN (Bazhou) Metal Powder Company Limited	China	40%
Shanghai GKN Driveline Sales Co Limited	China	49%
Shanghai GKN HUAYU Driveline Systems Co Limited	China	50%
GKN HUAYU Driveline Systems (Chongqing) Co Limited	China	34.5%
GKN HUAYU Driveline Systems (Pinghu) Co Limited	China	50%
Transejes Transmisiones Homocineticas de Colombia SA	Colombia	49%
Nanjing FAYN Piston Ring Company Limited	China	19.79%

1.2 New Standards, Amendments and Interpretations affecting amounts, presentation or disclosure reported in the current year

In the current financial year, the Group has adopted the following new and revised Standards, Amendments and Interpretations. Their adoption has not had a significant impact on the amounts reported in this Historical Financial Information:

- Amendments to IFRS 3: Reference to the conceptual framework
- Amendments to IAS 16: Property, Plant and Equipment, proceeds before intended use
- Amendments to IAS 37: Onerous Contracts, cost of fulfilling a contract
- Annual Improvements to IFRS Accounting Standards: 2018-2020 cycle

1.3 New Standards, Amendments and Interpretations in issue but not yet effective

At 31 December 2022, the following Standards, Amendments and Interpretations were in issue but not yet effective:

- Amendments to IFRS 10 and IAS 28: Sale or contribution of assets between an investor and its associate or joint venture

- Amendments to IAS 1: Classification of liabilities as current or non-current and disclosure of accounting policies
- Amendments to IAS 8: Definition of accounting estimates
- Amendments to IAS 12: Deferred tax related to assets and liabilities arising from a single transaction

The Executive Directors do not expect that adoption of the above Standards, Amendments and Interpretations will have a material impact on the Group in future periods.

2. Summary of significant accounting policies

Basis of accounting

The Carve-out Historical Financial Information has been prepared on a historical cost basis, except for the revaluation of certain financial instruments and investments which are recognised at fair value at the end of each reporting period. Historical cost is generally based on the fair value of the consideration given in exchange for assets.

Alternative Performance Measures

The Group presents Alternative Performance Measures ("APMs") in addition to the statutory results of the Group. These are presented in accordance with the Guidelines on APMs issued by the European Securities and Markets Authority ("ESMA").

The reconciling items between statutory and adjusted results are listed below and described in more detail in Note 6.

Adjusted revenue includes the Group's share of revenue from equity accounted investments ("EAIs").

Adjusted profit measures exclude items which are significant in size or volatility or by nature are non-trading or non-recurring, any item released to the Carve-out Income Statement that was previously a fair value item booked on an acquisition, and include adjusted profit from EAIs.

On this basis, the following are the principal items included within adjusting items impacting operating profit:

- Amortisation of intangible assets that are acquired in a business combination, excluding computer software and development costs;
- Significant restructuring project costs and other associated costs, including losses incurred following the announcement of closure for identified businesses, arising from significant strategy changes that are not considered by the Group to be part of the normal operating costs of the business;
- Acquisition and disposal related gains and losses;
- Impairment charges that are considered to be significant in nature and/or value to the trading performance of the business;
- Movement in derivative financial instruments not designated in hedging relationships, including revaluation of associated financial assets and liabilities;
- Removal of adjusting items, interest and tax on equity accounted investments to reflect operating results;
- Costs associated with the gender equalisation of guaranteed minimum pension ("GMP") for occupational schemes; and
- The net release of fair value items booked on acquisitions.

Further to the adjusting items above, adjusting items impacting profit before tax include:

- The fair value changes on cross-currency swaps, relating to cost of hedging which are not deferred in equity; and
- The movement in loans with Related Parties as a result of changes in foreign currency exchange rates.

In addition to the items above, adjusting items impacting profit after tax include:

- The net effect on tax of significant restructuring from strategy changes that are not considered by the Group to be part of the normal operating costs of the business;
- The net effect of significant new tax legislation; and

- The tax effects of adjustments to profit/(loss) before tax.

Management considers the adjusted results to be an important measure used to monitor how the businesses are performing as this provides a meaningful reflection of how the businesses are managed and measured on a day-to-day basis and achieves consistency and comparability between reporting periods, when all businesses are held for a complete reporting period.

The adjusted measures are used to partly determine the variable element of remuneration of senior management throughout the Group and are also in alignment with performance measures used by certain external stakeholders.

Adjusted results are not a defined term under IFRS and may not be comparable with similarly titled profit measures reported by other companies. It is not intended to be a substitute for, or superior to, GAAP measures. All APMs relate to the current year results and comparative periods where provided.

Basis of consolidation

The Carve-out Historical Financial Information includes the results of all of the entities detailed in Note 1. In addition, the Group's share of the results and equity of joint ventures and associated undertakings (together "equity accounted investments") are included. The results of businesses acquired during the period are included from the effective date of acquisition and, for those sold during the period, to the effective date of disposal. Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with those used by the Group.

All intra-Group balances and transactions, including unrealised profits arising from intra-Group transactions, have been eliminated in full.

Non-controlling interests in subsidiaries are identified separately from the Group's equity therein. The interest of non-controlling shareholders is initially measured at the non-controlling interests' proportion of the share of the fair value of the acquiree's identifiable net assets. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Going Concern

The Carve-out Historical Financial Information has been prepared on a going concern basis as the Executive Directors consider that adequate resources exist for the Group to continue in operational existence for the foreseeable future.

The Group is currently part of a wider group owned by the Ultimate Parent. The Group has external obligations for ongoing trade operations as well as debt outside of the Group with non-Group entities owned by the Ultimate Parent. At 31 December 2022, the Group was owed more than £650 million by non-Group entities owned by the Ultimate Parent, and has recognised cash balances, net of overdrafts, of £263 million. The Group has also recorded positive operating cash flows for each year of the Historical Financial Information period and is forecast to continue to do so following the proposed demerger. The Ultimate Parent and non-Group entities owned by the Ultimate Parent have banking facilities which are used to fund the Group and other non-Group entities. None of the Ultimate Parent and non-Group entities' banking facility matures in the going concern period following an extension agreed during 2021. The next contractual maturity is in June 2024 and whilst changes to banking arrangements are being considered to facilitate the proposed demerger of the Group, these will only be enacted if the shareholders approve the demerger.

Prior to demerger, the Ultimate Parent intends to complete a reorganisation of its corporate structure to bring all of the companies that comprise the Dowlais Group under the ownership of Dowlais Group plc. Further detail is given on post balance sheet events in Note 27. As part of this reorganisation, the Group intends to pay a dividend, which will be financed by both settling pre-existing loan balances payable to or receivable from non-Group entities owned by the Ultimate Parent and new external debt facilities.

As part of its preparation for the proposed demerger, the Ultimate Parent has agreed revised banking documentation for the non-Group entities owned by the Ultimate Parent and the Group has agreed separate revised banking documentation for the Group entities, which is comparable in nature with existing arrangements which the Ultimate Parent has in place and would provide the Group with sufficient liquidity throughout the going concern period (through standalone financing arrangements), albeit contingent on shareholder approval of the demerger.

Considerations

The Group's going concern assessment takes into account the estimated impact of a continued recovery from the COVID-19 pandemic as well as other end market and operational factors, including supply chain challenges and the continued recovery of inflation on input costs, throughout the going concern period and has been monitored against the actual results and cash generation in the year.

The Group has included in its assessment more conservative sales assumptions for 2023 and the first half of 2024, along with the consequential impact on profit and cash flow. The Group has also considered if it would have access to sufficient sources of finance in the case of an additional working capital outflow.

In all areas of the going concern assessment, even with significant sensitivity reductions, the Group will not require any additional sources of finance.

Business combinations and goodwill

The acquisition of subsidiaries is accounted for using the acquisition method. The cost of acquisition is measured at the fair value of assets transferred, the liabilities incurred or assumed at the date of exchange of control and equity instruments issued by the Group in exchange for control of the acquiree. Control is achieved where the Group has the power to govern the financial and operating policies of an investee entity so as to obtain benefits from its activities. Costs directly attributable to business combinations are recognised as an expense in the Carve-out Income Statement as incurred.

The acquired identifiable assets and liabilities are measured at their fair value at the date of acquisition except those where specific guidance is provided by IFRSs. Non-current assets and directly attributable liabilities that are classified as held for sale in accordance with IFRS 5: Non-current assets held for sale and discontinued operations, are recognised and measured at fair value less costs to sell. Also, deferred tax assets and liabilities are recognised and measured in accordance with IAS 12: Income taxes, liabilities and assets related to employee benefit arrangements are recognised and measured in accordance with IAS 19 (revised): Employee benefits and liabilities or equity instruments related to the replacement by the Group of an acquiree's share-based payments awards are measured in accordance with IFRS 2: Share-based payment. Any excess of the cost of the acquisition over the fair values of the identifiable net assets acquired is recognised as goodwill.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts where appropriate. Those provisional amounts are adjusted during the measurement period, or additional assets or liabilities recognised, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognised at that date.

The measurement period is the period from the date of acquisition to the date the Group obtains complete information about facts and circumstances that existed as of the acquisition date and is subject to a maximum period of one year.

Goodwill on acquisition is initially measured at cost, being the excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree over the acquirer's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities. Following initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is reviewed for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired.

If, after reassessment, the Group's interest in the fair value of the acquiree's identifiable net assets exceeds the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree, the excess is recognised immediately in profit or loss as a bargain purchase gain.

As at the acquisition date, any goodwill acquired is allocated to the cash generating units acquired. Impairment is determined by assessing the recoverable amount of the cash generating unit to which goodwill relates. Where the recoverable amount of the cash-generating unit is less than the carrying amount, an impairment loss is recognised in the Carve-out Income Statement and is not subsequently reversed. When there is a disposal of a cash generating unit, goodwill relating to the operation disposed of is taken into account in determining the gain or loss on disposal of that operation. The amount of goodwill allocated to a partial disposal is measured on the basis of the relative values of the operation disposed of and the operation retained.

Equity accounted investments

A joint venture is an entity which is not a subsidiary undertaking but where the interest of the Group is that of a partner in a business over which the Group exercises joint control with its partners over the financial and operating policies. In all cases voting rights are 50% or lower.

Associated undertakings are entities that are neither a subsidiary nor a joint venture, but where the Group has a significant influence. The results, assets and liabilities of equity accounted investments are accounted for using the equity method of accounting. The Group's share of equity includes goodwill arising on acquisition.

When a Group entity transacts with an equity accounted investment of the Group, profits and losses resulting from the transactions with the equity accounted investments are recognised in the Group's Carve-out Historical Financial Information only to the extent of interests in equity accounted investments that are not related to the Group.

Revenue

Revenues are recognised at the point of transfer of control of goods, as no revenue qualifies to be recognised over time. Costs are recognised as they are incurred.

The nature of agreements into which the Group enters means that certain of the Group's arrangements with its customers have multiple elements that can include a combination of:

- Sale of products; and
- Design and build.

Contracts are reviewed to identify each performance obligation relating to distinct goods and the associated consideration. The Group allocates revenue to multiple element arrangements based on the identified performance obligations within the contracts in line with the policies below. A performance obligation is identified if the customer can benefit from the goods on their own or together with other readily available resources, and it can be separately identified within the contract. This review is performed by reference to the specific contract terms.

Sale of products

This revenue stream accounts for the majority of Group sales.

Invoices for goods are raised and revenue is recognised when control of the goods is transferred to the customer. Dependent upon contractual terms this may be at the point of despatch or acceptance by the customer. Revenue recognised is the transaction price as it is the observable selling price per product.

Cash discounts, volume rebates and other customer incentive programmes are based on certain percentages agreed with the Group's customers, which are typically earned by the customer over an annual period. These are allocated to performance obligations and are recorded as a reduction in revenue at the point of sale based on the estimated future outcome. Due to the nature of these arrangements an estimate is made based on historical results to date, estimated future results across the contract period and the contractual provisions of the customer agreement.

Many businesses in the Automotive and Powder Metallurgy segments recognise an element of revenue via a surcharge or similar raw material cost recovery mechanism. The surcharge is generally based on prior period movement in raw material price indices applied to current period deliveries.

Participation fees are payments made to original equipment manufacturers relating to long-term agreements. They are recognised as contract assets to the extent that they can be recovered from future sales over the programme life, generally up to seven years.

Design and build

This revenue stream affects a discrete number of businesses in the Automotive segment. Generally, revenue is only recognised on the sale of product as detailed above, however, on occasions cash is received in advance of work performed to compensate the Group for costs incurred in design and development activities. The Group performs an assessment of its performance obligations to understand multiple elements. As there is generally only one performance obligation, any cash received in advance is deferred on the Carve-out Balance Sheet and allocated across the deliveries required under the contract.

Finance income

Finance income is recognised when it is probable that the economic benefits will flow to the Group and the amount of income can be measured reliably. Finance income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable.

Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in the Carve-out Income Statement in the period in which they are incurred.

Issue costs of loans

The finance cost recognised in the Carve-out Income Statement in respect of the issue costs of borrowings is allocated to periods over the terms of the instrument using the effective interest rate method.

Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation and any impairment in value.

The initial cost of an asset comprises its purchase price or construction cost, any costs directly attributable to bring the asset into operation, and any material borrowing costs on qualifying assets. Qualifying assets are defined as an asset or programme where the period of capitalisation is more than 12 months. Purchase price or construction cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset.

Where assets are in the course of construction at the balance sheet date, they are classified as capital work-in-progress. Transfers are made to other asset categories when they are available for use, at which point depreciation commences.

Right-of-use assets arise under IFRS 16 and are depreciated over the shorter of the estimated life and the lease term.

Depreciation is calculated on a straight-line basis over the estimated useful life of the asset as follows:

Freehold land	nil
Freehold buildings and leasehold property	over expected economic life not exceeding 50 years
Short leasehold property	over the term of the lease
Plant and equipment	3–15 years

The estimated useful lives of property, plant and equipment are reviewed on an annual basis and, if necessary, changes in useful lives are accounted for prospectively.

The carrying values of property, plant and equipment are reviewed annually for indicators of impairment, or if events or changes in circumstances indicate that the carrying value may not be recoverable. If such indication exists an impairment test is performed and, where the carrying values exceed the estimated recoverable amount, the assets are written down to their recoverable amount. The recoverable amount of property, plant and equipment is the greater of net selling price and value in use. In assessing value in use, estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds or costs and the carrying amount of the item) is included in the Carve-out Income Statement in the period that the item is derecognised.

Intangible assets

Intangible assets are stated at cost less accumulated amortisation and accumulated impairment losses.

On acquisition of businesses, separately identifiable intangible assets are initially recorded at their fair value at the acquisition date.

Access to the use of brands and intellectual property are valued using a "relief from royalty" method which determines the net present value of future additional cash flows arising from the use of the intangible asset.

Customer relationships and contracts are valued on the basis of the net present value of the future additional cash flows arising from customer relationships with appropriate allowance for attrition of customers.

Technology assets are valued using a replacement cost approach, or a "relief from royalty" method.

Amortisation of intangible assets is recorded in administration expenses in the Carve-out Income Statement and is calculated on a straight-line basis over the estimated useful lives of the asset as follows:

Customer relationships and contracts	20 years or less
Brands and intellectual property	20 years or less
Technology	9 years or less
Computer software	5 years or less
Development costs	6 years or less

Where computer software is not integral to an item of property, plant or equipment, its costs are capitalised and categorised as intangible assets. Computer software is initially recorded at cost. Where these assets have been acquired through a business combination, this will be the fair value allocated in the acquisition accounting. Where these have been acquired other than through a business combination, the initial cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset.

Intangible assets (other than computer software and development costs) are tested for impairment annually or more frequently whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Impairment losses are measured on a similar basis to property, plant and equipment. Useful lives are also examined on an annual basis and adjustments, where applicable, are made on a prospective basis.

Research and development costs

Research costs are expensed as incurred.

Costs relating to clearly defined and identifiable development projects are capitalised when there is a technical degree of exploitation, adequacy of resources and a potential market or development possibility in the undertaking that are recognisable; and where it is the intention to produce, market or execute the project. A correlation must also exist between the costs incurred and future benefits and those costs must be able to be measured reliably. Capitalised costs are expensed on a straight-line basis over their useful lives of six years or less. Costs not meeting such criteria are expensed as incurred.

Inventories

Inventories are valued at the lower of cost and net realisable value and are measured using a first in, first out or weighted average cost basis. Cost includes all direct expenditure and appropriate production overhead expenditure incurred in bringing goods to their current state under normal operating conditions. Net realisable value is based on estimated selling price less costs expected to be incurred to completion and disposal. Provisions are made for obsolescence or other expected losses where necessary.

Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, balances with banks and similar institutions, and short-term deposits which are readily convertible to cash and are subject to insignificant risks of changes in value.

For the purpose of the Carve-out Statement of Cash Flows, cash and cash equivalents consist of cash and cash equivalents as defined above, net of outstanding bank overdrafts.

Loans with Related Parties

All loans and borrowings are initially recognised at fair value of the consideration received net of the associated issue costs.

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost using the effective interest rate method. Amortised cost is calculated by taking into account any issue costs, and any discount or premium on settlement.

Gains and losses are recognised in the Carve-out Income Statement when the liabilities are derecognised or impaired, as well as through the amortisation process.

Leases

Where a lease arrangement is identified, a liability to the lessor is included in the Carve-out Balance Sheet as a lease obligation calculated at the present value of minimum lease payments. A corresponding right-of-use asset is recorded in property, plant and equipment. The discount rate used to calculate the lease liability is the Group's incremental borrowing rate, unless there is a rate implicit in the lease. The incremental borrowing rate is used for the majority of leases. Incremental borrowing rates are based on the term, currency, country and start date of the lease and reflect the rate the Group would pay for a loan with similar terms and security.

Following initial recognition, the lease liability is measured at amortised cost using the effective interest rate method. Where there is a change in future lease payments due to a rent review, change in index or rate, or a change in the Group's assessment of whether it is reasonably certain to exercise a purchase, extension or break option, the lease obligation is remeasured. A corresponding adjustment is made to the associated right-of-use asset.

Right-of-use assets are depreciated over the shorter of the estimated useful life of the asset and the lease term.

Lease payments are apportioned between finance costs and a reduction in the lease obligation so as to reflect the interest on the remaining balance of the obligation. Finance charges are recorded in the Carve-out Income Statement within finance costs.

Leases with a term of 12 months or less and leases for low value are not recorded on the Carve-out Balance Sheet and lease payments are recognised as an expense in the Carve-out Income Statement on a straight-line basis over the lease term. Expenses relating to variable lease payments which are not included in the lease liability, due to being based on a variable other than an index or rate, are recognised as an expense in the Carve-out Income Statement.

Financial instruments—assets

Classification and measurement

All financial assets are classified as either those which are measured at fair value, through profit or loss or Other Comprehensive Income, and those measured at amortised cost.

Financial assets are initially recognised at fair value. For those which are not subsequently measured at fair value through profit or loss, this includes directly attributable transaction costs. Trade and other receivables, contract assets and amounts due from equity accounted investments are subsequently measured at amortised cost.

Recognition and derecognition of financial assets

Financial assets are recognised in the Carve-out Balance Sheet when the Group becomes a party to the contractual provisions of the instrument. The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

Impairment of financial assets

For trade receivables and contract assets, the simplified approach permitted under IFRS 9 is applied. The simplified approach requires that at the point of initial recognition the expected credit loss across the life of the receivable must be recognised. As these balances do not contain a significant financing element, the simplified approach relating to expected lifetime losses is applicable under IFRS 9. Cash and cash equivalents and other receivables are also subject to impairment requirements.

Investments

The Group has an investment in unlisted shares that are not traded in an active market, but are classified as financial assets, measured at fair value. Fair value is determined by assessment of expected future dividends discounted to net present value. Any changes in fair value are recognised in Other Comprehensive Income and accumulated in retained earnings. Dividends from investments are recognised in the Carve-out Income Statement when the Group's right to receive the dividend is established.

Trade and other receivables

Trade and other receivables are measured and carried at amortised cost using the effective interest method, less any impairment. For trade receivables, the carrying amount is reduced by an allowance for expected lifetime losses. Subsequent recoveries of amounts previously written off are credited against the allowance account and changes in the carrying amount of the allowance account are recognised in the Carve-out Income Statement.

Trade receivables that are assessed not to be impaired individually are also assessed for impairment on a collective basis. In measuring the expected credit losses, the Group considers all reasonable and supportable information such as the Group's past experience at collecting receipts, any increase in the number of delayed receipts in the portfolio past the average credit period, and forward looking information such as forecasts of future economic decisions.

Other receivables are also considered for impairment and if required the carrying amount is reduced by any loss arising which is recorded in the Carve-out Income Statement, although for the Group this is not material.

Financial instruments—liabilities

Recognition and derecognition of financial liabilities

Financial liabilities are recognised in the Carve-out Balance Sheet when the Group becomes a party to the contractual provisions of the instruments and are initially measured at fair value, net of transaction costs. The Group derecognises financial liabilities when the Group's obligations are discharged, significantly modified, cancelled or they expire.

Classification and measurement

Non-derivative financial liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective interest rate basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant periods. The effective interest rate is the rate that discounts estimated future cash payments throughout the expected life of the financial liability, or, where appropriate, a shorter period to the gross carrying amount of the financial liability.

Derivative financial instruments

The Group uses derivative financial instruments to manage its exposure to interest rate, foreign exchange rate and commodity risks, arising from operating and financing activities. The Group does not hold or issue derivative financial instruments for speculative trading purposes. Details of derivative financial instruments are disclosed in Note 21 of the Carve-out Historical Financial Information.

Derivative financial instruments are recognised and stated at fair value in the Carve-out Balance Sheet. Their fair value is recalculated at each reporting date. The accounting treatment for the resulting gain or loss will depend on whether the derivative meets the criteria to qualify for hedge accounting and are designated as such.

Where derivatives do not meet the criteria to qualify for hedge accounting, any gains or losses on the revaluation to fair value at the period end are recognised immediately in the Carve-out Income Statement. Where derivatives do meet the criteria to qualify for hedge accounting, recognition of any resulting gain or loss on revaluation depends on the nature of the hedge relationship and the item being hedged.

Derivative financial instruments with maturity dates of less than one year from the period end date are classified as current in the Carve-out Balance Sheet. Derivatives embedded in non-derivative host contracts are recognised at their fair value in the Carve-out Balance Sheet when the nature, characteristics and risks of the derivative are not closely related to the host contract. Gains and losses arising on the remeasurement of these embedded derivatives at each balance sheet date are recognised in the Carve-out Income Statement.

Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a rate that reflects the current market assessment of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

Contingent liabilities acquired in a business combination

Contingent liabilities acquired in a business combination are initially measured at fair value at the acquisition date. At the end of subsequent reporting periods, such contingent liabilities are measured at the higher of the amount that would be recognised in accordance with IAS 37: Provisions, contingent liabilities and contingent assets and the amount initially recognised less cumulative amount of revenue recognised in accordance with the principles of IFRS 15: Revenue from contracts with customers.

Pensions and other retirement benefits

The Group operates defined benefit pension plans and defined contribution plans, some of which require contributions to be made to administered funds separate from the Group.

For the defined benefit pension and retirement benefit plans, plan assets are measured at fair value and plan liabilities are measured on an actuarial basis and discounted at an interest rate equivalent to the current rate of return on a high-quality corporate bond of equivalent currency and term to the plan liabilities. Any assets resulting from this calculation are limited to past service cost plus the present value of available refunds and reductions in future contributions to the plan. The present value of the defined benefit obligation, and the related current service cost and past service cost, are measured using the projected unit credit method.

The service cost of providing pension and other retirement benefits to employees for the period is charged to the Carve-out Income Statement.

Net interest expense on net defined benefit obligations is determined by applying discount rates used to measure defined benefit obligations at the beginning of the year to net defined benefit obligations at the beginning of the year. The net interest expense is recognised within finance costs.

Remeasurement gains and losses comprise actuarial gains and losses, the effect of the asset ceiling (if applicable) and the return on plan assets (excluding interest). Remeasurement gains and losses, and taxation thereon, are recognised in full in the Carve-out Statement of Comprehensive Income in the period in which they occur and are not subsequently recycled.

Actuarial gains and losses may result from differences between the actuarial assumptions underlying the plan obligations and actual experience during the period or changes in the actuarial assumptions used in the valuation of the plan obligations.

For defined contribution plans, contributions payable are charged to the Carve-out Income Statement as an operating expense when employees have rendered services entitling them to the contributions.

Foreign currencies

The individual financial statements of each Group company are presented in the currency of the primary economic environment in which it operates (its functional currency). For the purpose of the Carve-out Historical Financial Information, the results and financial position of each Group company are expressed in pounds Sterling, which is also the presentation currency for the Carve-out Historical Financial Information.

In preparing the financial statements of the individual companies, transactions in currencies other than the entity's functional currency (foreign currencies) are recorded at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at the rates prevailing on the balance sheet date. Non-monetary items carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are included in the Carve-out Income Statement for the period. Exchange differences arising on the retranslation of non-monetary items carried at fair value are included in the Carve-out Income Statement for the period except for differences arising on the retranslation of non-monetary items in respect of which gains and losses are recognised directly in total invested capital. For such non-monetary items, any exchange component of that gain or loss is also recognised directly in total invested capital.

For the purpose of presenting Carve-out Historical Financial Information, the assets and liabilities of the Group's foreign operations are translated at exchange rates prevailing on the balance sheet date. Income and expense items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during that period, in which case the exchange rates at the date of transactions are used. Exchange differences arising, if any, are recognised in the Carve-out Statement of Comprehensive Income and accumulated in equity (attributed to non-controlling interests as appropriate). Such translation differences are recognised as income or as expenses in the period in which the related operation is disposed of. Any exchange differences that have previously been attributed to non-controlling interests are derecognised but they are not reclassified to the Carve-out Income Statement.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the rate prevailing at the balance sheet date.

Taxation

The tax expense is based on the taxable profits for the period and represents the sum of the tax paid or currently payable and deferred tax.

Taxable profit differs from net profit as reported in the Carve-out Income Statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates and tax laws that have been enacted or substantively enacted by the balance sheet date.

A tax provision is recognised for those matters for which the tax determination is uncertain but it is considered probable that there will be a future outflow of funds to a tax authority. The provisions are measured at the best estimate of the amount expected to become payable. The assessment is based on the judgement of tax professionals within the Company supported by previous experience in respect of such activities and in certain cases based on specialist independent advice.

Deferred tax is provided, using the liability method, on all temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognised for all taxable temporary differences except:

- where the deferred tax liability arises on the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- where the timing of the reversal of the temporary differences associated with investments in subsidiaries and interests in equity accounted investments can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, carry-forward of unused tax assets and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and carry-forward of unused tax assets and unused tax losses can be utilised except:

- where the deferred tax asset arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary differences associated with investments in subsidiaries and interests in equity accounted investments, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the relevant balance sheet date.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

Tax relating to items recognised directly in other comprehensive income is recognised in the Carve-out Statement of Comprehensive Income and not in the Carve-out Income Statement.

Revenues, expenses and assets are recognised net of the amount of sales tax except:

- where the sales tax incurred on a purchase of goods and services is not recoverable from the taxation authority, in which case the sales tax is recognised as part of the cost of acquisition of the asset or as part of the expense item as applicable; and
- where receivables and payables are stated with the amount of sales tax included.

The net amount of sales tax recoverable from, or payable to, the taxation authority is included as part of receivables or payables in the Carve-out Balance Sheet.

Non-current assets and disposal groups

Non-current assets and businesses classified as held for sale are measured at the lower of carrying amount and fair value less costs to sell. Non-current assets and businesses are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as having been met only when the sale is highly probable and the asset or business is available for immediate sale in its present condition. Management must be committed to the sale which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Government grants

Government grants are not recognised in the Carve-out Income Statement until there is reasonable assurance that the Group will comply with the conditions attached to them and that the grants will be received. Government grants are recognised in the Carve-out Income Statement on a systematic basis over the periods in which the Group recognises the related costs for which the grants are intended to compensate.

Specifically, government grants where the primary condition is that the Group should purchase, construct or otherwise acquire non-current assets (including property, plant and equipment) are recognised as deferred government grants in the Carve-out Balance Sheet and transferred to the Carve-out Income Statement on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognised in the Carve-out Income Statement in the period in which they become receivable.

3. Critical accounting judgements and key sources of estimation uncertainty

In the application of the Group's accounting policies, which are described in Note 2, the Executive Directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experiences and other factors that are considered to be relevant. Actual results may differ from these estimates.

The 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 revision and future periods if the revision affects both current and future periods.

Critical judgements

In the course of preparing the Carve-out Historical Financial Information, a critical judgement within the scope of paragraph 122 of IAS 1: Presentation of Financial Statements is made during the process of applying the Group's accounting policies.

Adjusting items

Judgements are required as to whether items are disclosed as adjusting, with consideration given to both quantitative and qualitative factors. Further information about the determination of adjusting items is included in Note 2.

There are no other critical judgements other than those involving estimates, that have had a significant effect on the amounts recognised in the Carve-out Historical Financial Information. Those involving estimates are set out below.

Key sources of estimation uncertainty

Assumptions concerning the future and other key sources of estimation uncertainty at the balance sheet date, that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are discussed below.

a) Assumptions used to determine the recoverable amount of goodwill and other assets

Determining whether the goodwill of groups of cash generating units ("CGUs") is impaired requires an estimation of its recoverable amount which is compared against the carrying value. The recoverable amount is deemed to be the higher of the value in use and fair value less costs to sell. For the year ended 31 December 2022, impairment testing has been performed for each group of CGUs using the fair value less costs to sell method. The fair values of the groups of CGUs are calculated using a combination of estimated discounted cash flows and EBITDA multiple valuations, as in the current environment it has been difficult to assess a sales value using observable market inputs (level 1) or inputs based on market evidence (level 2) and so unobservable inputs (level 3) have been used.

The Automotive and Powder Metallurgy groups of CGUs are sensitive to a change in estimates, depending on how their markets continue to recover from the implications of the COVID-19 pandemic and supply chain disruption as well as how they continue to recovery inflation impacts on input costs. As at 31 December 2022, the carrying amount of goodwill and other intangible assets (not including computer software and development costs) in the Automotive group of CGUs is £1,938 million (31 December 2021: £1,980 million, 31 December 2020: £2,172 million) and in the Powder Metallurgy group of CGUs is £1,081 million (31 December 2021: £1,066 million, 31 December 2020: £1,152 million). The sensitivity disclosures in Note 9 show reasonably possible changes to key assumptions and their effect on the impairment models, which could reduce headroom to nil. In order for a material impairment charge or loss on disposal to be recorded in the next year the following reasonably possible changes in key assumptions would need to occur:

- In the Automotive groups of CGUs, terminal operating profit would need to reduce by 16% which would reduce the terminal operating margin by 1.7 percentage points.
- In the Powder Metallurgy groups of CGUs, terminal operating profit would need to reduce by 10% which would reduce the terminal operating margin by 1.3 percentage points.

b) Assumptions used to determine the carrying amount of the Group's net retirement benefit obligations

The Group's pension plans are significant in size. The defined benefit obligations in respect of the plans are discounted at rates set by reference to market yields on high quality corporate bonds. Significant estimation is required when setting the criteria for bonds to be included in the population from which the yield curve is derived. The most significant criteria considered for the selection of bonds to include are the issue size of the corporate bonds, quality of the bonds and the identification of outliers which are excluded. In addition, assumptions are made in determining mortality and inflation rates to be used when valuing the plan's defined benefit obligations. At 31 December 2022, the retirement benefit obligation was a net deficit of £461 million (31 December 2021: £528 million, 31 December 2020: £748 million).

Further details of the assumptions applied and a sensitivity analysis on the principal assumptions used to determine the defined benefit liabilities of the Group's obligations are shown in Note 20. Whilst actual movements might be different to sensitivities shown, these are a reasonably possible change that could occur.

c) Loss-making contracts

Loss-making contract provisions represent the forecast unavoidable costs required to meet the obligations of long-term agreements, in excess of the contractual inflow expected to be generated in respect of these agreements. In assessing the unavoidable costs, management has considered the possibility that future actions could impact the profitability of the contracts. Calculation of the liability includes estimations of volumes, price and costs to be incurred over the life of the contract, which are discounted to a current value. Future changes within these estimates, or commercial progress could have a material impact on the provision in future periods. At 31 December 2022, the carrying value of the loss-making contracts provision in the Group was £46 million

(31 December 2021: £70 million, 31 December 2020: £119 million). In the last three years significant progress has been made resolving commercial and operational issues within a large number of loss-making contracts. The release has on average been 22% of the balance immediately before reassessment. If the Group were to achieve a similar level of success on the amount outstanding at 31 December 2022, there could be a further £10 million released to adjusting items (shown within 'net release and changes in discount rates of fair value items') in the next year.

4. Revenue

An analysis of the Group's revenue is as follows:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
Revenue recognised at a point in time	**4,595**	4,123	4,126
Revenue	**4,595**	4,123	4,126

The Group derives its revenue from the transfer of goods at a point in time. As set out in the accounting policies in Note 2, the Group has two primary revenue streams. There is little judgement or estimation in the revenue recognition of these areas.

5. Segment information

Segment information is presented in accordance with IFRS 8: Operating Segments which requires operating segments to be identified on the basis of internal reports about components of the Group that are regularly reported to the Group's Chief Operating Decision Maker ("CODM"), which has been deemed to be the Executive Directors, in order to allocate resources to the segments and assess their performance.

The operating segments are as follows:

Automotive—a global technology and systems engineer which designs, develops, manufactures and integrates an extensive range of driveline technologies, including electric vehicle components.

Powder Metallurgy—a global leader in precision powder metal parts for the automotive and industrial sectors, as well as the production of powder metal.

Hydrogen—offering reliable and secure hydrogen storage solutions, launched in 2021.

In addition, there is a central cost centre which is also reported to the Group's CODM. The central cost centre contains the Group head office costs and charges related to the divisional management long-term incentive plans.

Reportable segment results include items directly attributable to a segment as well as those which can be allocated on a reasonable basis. Inter-segment pricing is determined on an arm's length basis in a manner similar to transactions with third parties.

The Group's geographical segments are determined by the location of the Group's non-current assets and, for revenue, the location of external customers. Inter-segment sales are not material and have not been disclosed.

The following tables present the results and certain asset and liability information regarding the Group's operating segments and central cost centre.

a) Segment revenues

The Group has assessed that the disaggregation of revenue recognised from contracts with customers by operating segment is appropriate as this is the information regularly reviewed by the CODM in evaluating financial performance.

Year ended 31 December 2022	Automotive	Powder Metallurgy	Hydrogen	Total
	£m	£m	£m	£m
Adjusted revenue	**4,223**	**1,022**	**1**	**5,246**
Equity accounted investments	(625)	(26)	—	(651)
Revenue	**3,598**	**996**	**1**	**4,595**

Year ended 31 December 2021	Automotive	Powder Metallurgy	Hydrogen	Total
	£m	£m	£m	£m
Adjusted revenue	**3,756**	**975**	—	**4,731**
Equity accounted investments	(581)	(27)	—	(608)
Revenue	**3,175**	**948**	—	**4,123**

Year ended 31 December 2020	Automotive	Powder Metallurgy	Hydrogen	Total
	£m	£m	£m	£m
Adjusted revenue	**3,806**	**905**	—	**4,711**
Equity accounted investments	(566)	(19)	—	(585)
Revenue	**3,240**	**886**	—	**4,126**

b) Segment operating profit

Year ended 31 December 2022	Automotive	Powder Metallurgy	Hydrogen	Corporate[1]	Total
	£m	£m	£m	£m	£m
Adjusted operating profit/(loss)	**250**	**96**	**(14)**	**1**	**333**
Items not included in adjusted operating profit/ (loss)[2]:					
Amortisation of intangible assets acquired in business combinations	(147)	(51)	—	—	(198)
Restructuring costs	(37)	(17)	—	—	(54)
Equity accounted investments adjustments	(29)	—	—	—	(29)
Impairment of assets	(20)	—	—	—	(20)
Acquisition and disposal related gains and losses	(4)	—	—	1	(3)
Movement in derivatives and associated financial assets and liabilities	(7)	(1)	—	23	15
Net release and changes in discount rates of fair value items	5	9	—	—	14
Operating profit/(loss)	**11**	**36**	**(14)**	**25**	**58**
Finance costs					(272)
Finance income					151
Loss before tax					**(63)**
Tax					(14)
Loss for the year					**(77)**

Year ended 31 December 2021	Automotive	Powder Metallurgy	Hydrogen	Corporate[1]	Total
	£m	£m	£m	£m	£m
Adjusted operating profit/(loss)	**172**	**91**	**(7)**	**(14)**	**242**
Items not included in adjusted operating profit/(loss)[2]:					
Amortisation of intangible assets acquired in business combinations	(142)	(49)	—	—	(191)
Restructuring costs	(147)	(18)	—	—	(165)
Equity accounted investments adjustments	(28)	—	—	—	(28)
Movement in derivatives and associated financial assets and liabilities	(1)	(3)	—	(10)	(14)
Net release and changes in discount rates of fair value items	14	11	—	1	26
Acquisition and disposal related gains and losses	1	8	—	—	9
Operating (loss)/profit	**(131)**	**40**	**(7)**	**(23)**	**(121)**
Finance costs					(208)
Finance income					75
Loss before tax					**(254)**
Tax					(44)
Loss for the year					**(298)**

Year ended 31 December 2020	Automotive	Powder Metallurgy	Hydrogen	Corporate[1]	Total
	£m	£m	£m	£m	£m
Adjusted operating profit/(loss)	**82**	**39**	**—**	**(17)**	**104**
Items not included in adjusted operating profit/(loss)[2]:					
Amortisation of intangible assets acquired in business combinations	(147)	(52)	—	—	(199)
Restructuring costs	(60)	(48)	—	—	(108)
Impairment of assets	(21)	(30)	—	—	(51)
Equity accounted investments adjustments	(30)	—	—	—	(30)
Movement in derivatives and associated financial assets and liabilities	(2)	—	—	—	(2)
Impact of GMP equalisation on UK pension schemes	(1)	—	—	—	(1)
Net release and changes in discount rates of fair value items	(4)	34	—	—	30
Acquisition and disposal related gains and losses	—	—	—	1	1
Operating loss	**(183)**	**(57)**	**—**	**(16)**	**(256)**
Finance costs					(107)
Finance income					139
Loss before tax					**(224)**
Tax					28
Loss for the year					**(196)**

(1) Corporate adjusted operating profit of £1 million (2021: loss of £14 million, 2020: loss of £17 million), includes a credit of £10 million (2021: costs of £6 million, 2020: costs of £17 million) in respect of divisional management long term incentive plans and £2 million (2021: £2 million, 2020: £2 million) relating to costs allocated to the Group for general corporate services which the Group would have incurred had it operated on a standalone basis.

(2) Further details on adjusting items are discussed in Note 6.

c) Segment total assets and liabilities

	Total assets			Total liabilities		
	31 December 2022	31 December 2021	31 December 2020	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m	£m	£m	£m
Automotive	**4,832**	4,654	5,149	**2,177**	2,093	2,444
Powder Metallurgy	**1,791**	1,709	1,822	**409**	446	488
Hydrogen	**7**	4	—	**6**	—	—
Corporate	**3,129**	3,677	3,460	**2,202**	2,670	2,695
Total	**9,759**	10,044	10,431	**4,794**	5,209	5,627

d) Segment capital expenditure and depreciation

	Capital expenditure[1]			Depreciation of owned assets[2]			Depreciation of leased assets		
	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Automotive	**187**	113	130	**184**	198	199	**14**	15	18
Powder Metallurgy	**44**	40	33	**53**	51	61	**10**	9	9
Hydrogen	—	1	—	—	—	—	—	—	—
Corporate	—	—	—	—	—	—	—	—	—
Total	**231**	154	163	**237**	249	260	**24**	24	27

(1) Comprises additions of computer software, development costs and property, plant and equipment excluding additions of right-of-use assets (Note 11).

(2) Including computer software and development costs.

e) Geographical information

The Group operates in various geographical areas around the world. The Group's revenues and non-current assets in the UK, Rest of Europe and North America are considered to be material.

The Group's revenue from external customers and information about its segment assets (non-current assets excluding loans receivable from Related Parties; deferred tax assets; derivative financial assets, retirement benefit surplus; and other receivables) by geographical location are detailed below:

	Revenue[1] from external customers			Segment assets		
	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m	£m	£m	£m
UK	**172**	159	171	**723**	788	850
Rest of Europe	**1,495**	1,471	1,442	**1,952**	1,942	2,305
North America	**1,946**	1,573	1,667	**1,525**	1,404	1,503
Other	**982**	920	846	**1,112**	1,128	1,118
Total	**4,595**	4,123	4,126	**5,312**	5,262	5,776

(1) Revenue is presented by destination.

6. Reconciliation of adjusted profit measures

As described in Note 2, adjusted profit measures are an alternative performance measure used by the Group's Chief Operating Decision Maker to monitor the operating performance of the Group.

a) Operating profit

	Notes	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
		£m	£m	£m
Operating profit/(loss)		**58**	(121)	(256)
Amortisation of intangible assets acquired in business combinations	a	**198**	191	199
Restructuring costs	b	**54**	165	108
Equity accounted investments adjustments	c	**29**	28	30
Impairment of assets	d	**20**	—	51
Acquisition and disposal related gains and losses	e	**3**	(9)	(1)
Movement in derivatives and associated financial assets and liabilities	f	**(15)**	14	2
Net release and changes in discount rates of fair value items	g	**(14)**	(26)	(30)
Impact of GMP equalisation on UK pension schemes	h	—	—	1
Total adjustments to operating profit/(loss)		**275**	363	360
Adjusted operating profit		**333**	242	104

a. The amortisation charge on intangible assets acquired in business combinations of £198 million (2021: £191 million, 2020: £199 million) is excluded from adjusted results due to its non-trading nature and to enable comparison with companies that grow organically. However, where intangible assets are trading in nature, such as computer software and development costs, the amortisation is not excluded from adjusted results.

b. Restructuring and other associated costs in the year totalled £54 million (2021: £165 million, 2020: £108 million), including a write down of non-current assets in affected sites of £nil (2021: £54 million, 2020: £17 million). These are shown as adjusting items due to their size and non-trading nature and included:

- A charge of £37 million (2021: £147 million, 2020: £60 million) within the Automotive division. These included multiple restructuring projects which concluded within the year, including two significant footprint consolidation actions in Europe, which commenced last year. In addition, restructuring costs were occurred in North America, continuing the movement of production from high to low cost countries. During the years ended 31 December 2021 and 31 December 2020, the business accelerated its efforts to address its high cost base, inherited on acquisition, and best position itself as it recovered post COVID-19.
- A charge of £17 million (2021: £18 million, 2020: £48 million) within the Powder Metallurgy division. Multiple restructuring projects in the business concluded within the year, including the closure of a factory in Canada. During the year ended 31 December 2021, the restructuring charge related to multiple restructuring projects under way that would set the business's cost base at a level such that target operating margins could be achieved when supply constraints eased. During the year ended 31 December 2020, the restructuring charge included costs associated with realigning the business for future demand, along with consolidation actions started in 2019 and the commencement during 2020 of the closure of a site in its underperforming North American Structural business.

c. The Group has a number of equity accounted investments ("EAIs") in which it does not hold full control, the largest of which is a 50% interest in Shanghai GKN HUAYU Driveline Systems Co Limited ("SDS"), within the Automotive business. The EAIs generated £651 million (2021: £608 million, 2020: £585 million) of revenue in the year, which is not included in the statutory results but is shown within adjusted revenue so as not to distort the operating margins reported in the businesses when the adjusted operating profit earned from these EAIs is included.

In addition, the profits and losses of EAIs, which are shown after amortisation of acquired intangible assets, interest and tax in the statutory results, are adjusted to show the adjusted operating profit consistent with the adjusted operating profits of the subsidiaries of the Group. The revenue and profit of EAIs are adjusted because they are considered to be significant in size and are important in assessing the performance of the business.

d. A write down of assets of £20 million (2021: £nil, 2020: £51 million), has been recognised as a result of exiting any direct trading links with Russian operations as a result of the conflict in Ukraine. The write down of assets in 2020 of £51 million, was mostly recognised in the second quarter of that year as a result of the impact of COVID-19. The write down of these assets was shown as an adjusting item due to the unprecedented nature of the COVID-19 pandemic, its non-trading nature and size.

e. An acquisition and disposal related net charge of £3 million (2021: credit of £9 million, 2020: credit of £1 million) arose in the year. These items are excluded from adjusted results due to their non-trading nature. During 2022, a charge of £4 million was recorded within the Automotive division, which related to preparatory costs ahead of the proposed demerger. During 2021, £8 million of contingent consideration relating to the acquisition of Forecast 3D was released within the Powder Metallurgy division.

f. Movements in the fair value of derivative financial instruments (primarily forward foreign currency exchange contracts where hedge accounting is not applied) entered into to mitigate the potential volatility of future cash flows, on long-term foreign currency customer and supplier contracts, including foreign exchange movements on the associated financial assets and liabilities are shown as an adjusting item because of its volatility and size. This totalled a credit of £15 million in the year (2021: charge of £14 million, 2020: charge of £2 million).

g. The net release of fair value items in the year of £14 million (2021: £26 million, 2020: £30 million) where items have been resolved for more favourable amounts than first anticipated are shown as an adjusting item, avoiding positively distorting adjusted operating profit. During the year this included a net release of £7 million in respect of loss-making contract provisions, where either contractual terms have been renegotiated with the relevant customer or operational efficiencies have been identified and demonstrated for a sustained period.

h. During 2020, the Company incurred a further charge of £1 million in respect of gender equalisation of guaranteed minimum pensions for occupational pension schemes in the UK. This was excluded from adjusted results because of its non-trading nature.

b) Profit before tax

	Notes	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
		£m	£m	£m
Loss before tax		**(63)**	(254)	(224)
Adjustments to operating profit/(loss) as above		**275**	363	360
Equity accounted investments—interest	i	**2**	2	—
Fair value changes on cross-currency swaps	j	**59**	(13)	6
Net foreign exchange movements on loans with Related Parties	k	**24**	106	(91)
Total adjustments to loss before tax		**360**	458	275
Adjusted profit before tax		**297**	204	51

i. As explained in paragraph c above, the profits and losses of EAIs are shown after adjusting items, interest and tax in the statutory results. They are adjusted to show the profit before tax and the profit after tax, consistent with the subsidiaries of the Group.

j. The fair value changes on cross-currency swaps relating to cost of hedging which are not deferred in equity, is shown as an adjusting item because of its volatility and non-trading nature.

k. The movement in loans with Related Parties as a result of changes in foreign currency exchange rates is shown as an adjusting item because of its volatility, size and non-trading nature.

c) Profit after tax

	Notes	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
		£m	£m	£m
Loss after tax		**(77)**	(298)	(196)
Adjustments to loss before tax as above		**360**	458	275
Tax effect of adjustments to loss before tax	8	**(62)**	(76)	(40)
Tax effect of significant restructuring	8	**6**	80	—
Equity accounted investments—tax	i	**(9)**	(9)	(8)
Total adjustments to loss after tax		**295**	453	227
Adjusted profit after tax		**218**	155	31

7. Expenses

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
Net operating expenses comprise:			
Selling and distribution costs	**(31)**	(27)	(29)
Administration expenses(1)	**(618)**	(713)	(729)
Total net operating expenses	**(649)**	(740)	(758)

(1) Includes £246 million (2021: £335 million, 2020: £330 million) of adjusting items (Note 6).

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
Operating profit/(loss) is stated after charging/(crediting):			
Cost of inventories	**3,937**	3,542	3,656
Amortisation of intangible assets acquired in business combinations	**198**	191	199
Depreciation and impairment of property, plant and equipment	**258**	316	328
Amortisation and impairment of computer software and development costs	**19**	11	21
Lease expense[1]	**2**	2	1
Staff costs	**1,099**	1,089	1,135
Research and development costs[2]	**147**	147	141
(Profit)/loss on disposal of property, plant and equipment	**(11)**	1	—
Expense of writing down inventory to net realisable value	**16**	27	29
Reversals of previous write-downs of inventory	**(17)**	(9)	(4)
Impairment recognised on trade receivables	**3**	—	—
Impairment reversed on trade receivables	**(5)**	(1)	—

(1) Includes costs relating to short-term leases.

(2) Includes staff costs totalling £121 million (2021: £116 million, 2020: £116 million).

An analysis of staff costs and employee numbers is as follows:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
Staff costs during the year (including Executive Directors)			
Wages and salaries[1]	**892**	880	909
Social security costs	**185**	186	202
Pension costs (Note 20)			
—defined benefit plans[2]	**9**	9	10
—defined contribution plans	**13**	14	14
Total staff costs	**1,099**	1,089	1,135

(1) Includes net amounts received of £nil (2021: £5 million, 2020: £28 million) from global government assistance schemes during the COVID-19 pandemic. All amounts received from the UK government in 2020 were repaid.

(2) Includes a past service cost of £nil (2021: £nil, 2020: £1 million) in respect of GMP equalisation, shown as an adjusting item (Note 6).

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	Number	Number	Number
Average monthly number of persons employed (including Executive Directors)			
Automotive	**18,520**	19,141	20,040
Powder Metallurgy	**5,672**	6,080	6,433
Hydrogen	**65**	23	—
Corporate[1]	—	—	—
Total average number of persons employed	**24,257**	25,244	26,473

(1) Corporate staff costs have been allocated directly to divisions.

An analysis of finance costs and income is as follows:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	**£m**	**£m**
Finance costs and income			
Interest on bank loans and overdrafts	**(11)**	(4)	(7)
Interest on loans due to Related Parties	**(22)**	(26)	(36)
Foreign exchange movements on loans with Related Parties(1)	**(167)**	(163)	(38)
Net interest cost on pensions	**(6)**	(7)	(12)
Lease interest	**(6)**	(7)	(7)
Unwind of discount on provisions	**(1)**	(1)	(1)
Fair value changes on cross-currency swaps(1)	**(59)**	—	(6)
Total finance costs	**(272)**	(208)	(107)
Interest on loans due from Related Parties	**—**	—	7
Fair value changes on cross-currency swaps(1)	**—**	13	—
Foreign exchange movements on loans with Related Parties(1)	**143**	57	129
Other finance income	**8**	5	3
Total finance income	**151**	75	139
Total net finance (costs)/income	**(121)**	(133)	32

(1) These are shown as adjusting items (Note 6).

8. Tax

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	**£m**	**£m**
Analysis of tax charge/(credit) in the year:			
Current tax			
Current year tax charge	**50**	47	43
Adjustments in respect of prior years	**(5)**	(4)	(15)
Total current tax charge	**45**	43	28
Deferred tax			
Origination and reversal of temporary differences	**(57)**	—	(106)
Adjustments in respect of prior years	**12**	1	3
Tax on the change in value of derivative financial instruments	**6**	(3)	(1)
Adjustments to deferred tax attributable to changes in tax rates	**3**	18	15
Non-recognition of deferred tax	**5**	1	33
Recognition of previously unrecognised deferred tax assets	**—**	(16)	—
Total deferred tax (credit)/charge	**(31)**	1	(56)
Total tax charge/(credit) for the year	**14**	44	(28)
Analysis of tax charge/(credit) in the year:			
Tax charge in respect of adjusted profit before tax	**79**	49	20
Tax credit recognised as an adjusting item	**(65)**	(5)	(48)
Total tax charge/(credit) for the year	**14**	44	(28)

The tax charge of £79 million (2021: £49 million, 2020: £20 million) arising on adjusted profit before tax of £297 million (2021: £204 million, 2020: £51 million), results in an effective tax rate of 27% (2021: 24%, 2020: 39%).

The £65 million (2021: £5 million, 2020: £48 million) tax credit recognised as an adjusting item includes £62 million (2021: £76 million, 2020: £40 million) in respect of tax credits on adjustments to loss before tax of £360 million (2021: £458 million, 2020: £275 million), £9 million (2021: £9 million, 2020: £8 million) in respect of the tax on equity accounted investments and a charge of £6 million (2021: £80 million, 2020: £nil) in respect of internal Group restructuring.

The tax charge/(credit) for the year can be reconciled to the loss before tax per the Carve-out Income Statement as follows:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
Loss before tax	**(63)**	(254)	(224)
Tax credit on loss before tax at the weighted average rate of 23% (2021: 22%, 2020: 33%)	**(14)**	(56)	(74)
Tax effect of:			
Disallowable expenses and other permanent differences within adjusted profit	**12**	(2)	3
Disallowable items included within adjusting items	**(13)**	10	—
Temporary differences not recognised in deferred tax	**5**	—	33
Recognition of previously unrecognised deferred tax assets	**—**	(16)	—
Tax credits, withholding taxes and other rate differences	**14**	13	7
Adjustments in respect of prior years	**7**	(3)	(12)
Tax charge classified within adjusting items	**6**	80	—
Effect of changes in tax rates	**(3)**	18	15
Total tax charge/(credit) for the year	**14**	44	(28)

The reconciliation has been performed at a blended Group tax rate of 23% (2021: 22%, 2020: 33%) which represents the weighted average of the tax rates applying to profits and losses in the jurisdictions in which those results arose in the year.

Tax charges/(credits) included in Other Comprehensive Income are as follows:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
Deferred tax on retirement benefit obligations	**27**	27	8
Deferred tax on foreign exchange gains and losses	**—**	1	(8)
Current tax on foreign exchange gains and losses	**12**	—	—
Total charge for the year	**39**	28	—

Franked investment income—litigation

Since 2003, certain entities in the Group have been involved in litigation with HMRC in respect of various advance corporate tax payments and corporate tax paid on certain foreign dividends which, in their view, were levied by HMRC in breach of the Group's EU community law rights.

The continuing complexity of the case and uncertainty over the issues raised means that it is not possible to predict the final outcome of the litigation with any reasonable degree of certainty. The Group entities included in the case will assign their rights and obligations in relation to the litigation to GKN Holdings Limited, a non-Group entity controlled by the Ultimate Parent, in advance of the demerger.

9. Goodwill and other intangible assets

	Goodwill	Customer relationships and contracts	Brands and intellectual property	Other[1]	Computer software	Development costs	Total
	£m	£m	£m	£m	£m	£m	£m
Cost							
At 1 January 2020	1,530	1,696	183	392	85	85	3,971
Additions	—	—	—	—	4	8	12
Acquisition of businesses[2]	15	10	—	9	—	—	34
Exchange adjustments	5	6	—	1	—	—	12
At 31 December 2020	1,550	1,712	183	402	89	93	4,029
Additions	—	—	—	—	5	8	13
Disposals	—	—	—	—	(1)	(5)	(6)

	Goodwill	Customer relationships and contracts	Brands and intellectual property	Other(1)	Computer software	Development costs	Total
	£m	£m	£m	£m	£m	£m	£m
Exchange adjustments	(42)	(57)	—	—	(4)	(2)	(105)
At 31 December 2021	1,508	1,655	183	402	89	94	3,931
Additions	—	—	—	—	6	14	20
Disposals	—	—	—	—	(2)	(1)	(3)
Exchange adjustments	87	124	—	2	5	5	223
At 31 December 2022	**1,595**	**1,779**	**183**	**404**	**98**	**112**	**4,171**
Amortisation and impairment							
At 1 January 2020	—	(231)	(16)	(79)	(74)	(28)	(428)
Charge for the year:							
Adjusted operating profit	—	—	—	—	(5)	(6)	(11)
Adjusting items	—	(142)	(9)	(48)	—	—	(199)
Impairments(3)	—	—	—	—	—	(10)	(10)
Exchange adjustments	—	2	—	—	(1)	—	1
At 31 December 2020	—	(371)	(25)	(127)	(80)	(44)	(647)
Charge for the year:							
Adjusted operating profit	—	—	—	—	(3)	(5)	(8)
Adjusting items	—	(134)	(9)	(48)	—	—	(191)
Impairments(3)	—	—	—	—	—	(3)	(3)
Disposals	—	—	—	—	1	—	1
Exchange adjustments	—	12	—	—	3	—	15
At 31 December 2021	—	(493)	(34)	(175)	(79)	(52)	(833)
Charge for the year:							
Adjusted operating profit	—	—	—	—	(3)	(7)	(10)
Adjusting items	—	(140)	(9)	(49)	—	—	(198)
Impairments(3)	—	—	—	—	—	(9)	(9)
Disposals	—	—	—	—	2	1	3
Exchange adjustments	—	(39)	(1)	(2)	(4)	(3)	(49)
At 31 December 2022	**—**	**(672)**	**(44)**	**(226)**	**(84)**	**(70)**	**(1,096)**
Net book value							
At 31 December 2022	**1,595**	**1,107**	**139**	**178**	**14**	**42**	**3,075**
At 31 December 2021	1,508	1,162	149	227	10	42	3,098
At 31 December 2020	1,550	1,341	158	275	9	49	3,382

(1) Other includes technology and order backlog intangible assets recognised on acquisitions.

(2) Acquisition of businesses in 2020 related to the purchase of Forecast 3D in the Powder Metallurgy division (Note 10).

(3) Includes £nil (2021: £3 million, 2020: £nil) within restructuring costs and £9 million (2021: £nil, 2020: £10 million) within impairment of assets, both shown as adjusting items (Note 6).

The goodwill from major acquisitions represents the premium paid in excess of the fair value of all net assets, including intangible assets, identified at the point of acquisition. The carrying value of goodwill includes a premium, paid in order to secure shareholder agreement to the business combination, that is less than the value that the Executive Directors believed could be added to the acquired businesses through the application of their specialist turnaround experience.

The goodwill arising on bolt-on acquisitions is attributable to the anticipated profitability and cash flows arising from the businesses acquired, synergies as a result of the complementary nature of the business with existing businesses, the assembled workforce, technical expertise, knowhow, market share and geographical advantages afforded to the Group.

The future improvements applied to the acquired businesses, achieved through a combination of revised strategic direction, operational improvements and investment, are expected to result in improved profitability of the acquired businesses during the period of ownership and are also expected to result in enhanced disposal proceeds when the acquired businesses are ultimately disposed. The combined value achieved from these improvements is expected to be in excess of the value of goodwill acquired.

Goodwill acquired in business combinations, net of impairment, has been allocated to the businesses, each of which comprises several cash-generating units ("CGUs"). Goodwill is allocated to the Automotive and Powder Metallurgy groups of CGUs as this is the level where resources are allocated and where there is a consistent management team and oversight.

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Goodwill			
Automotive	**1,056**	1,001	1,026
Powder Metallurgy	**539**	507	524
Total	**1,595**	1,508	1,550

Impairment testing

The Group tests goodwill annually or more frequently if there are indications that goodwill might be impaired. The date of the annual impairment test is 31 October, aligned with internal forecasting and review processes. In accordance with IAS 36: Impairment of assets, the Group assesses goodwill based on the recoverable amount, being the higher of the value in use basis and the fair value less costs to sell basis. Due to the current environment and ongoing restructuring, the fair value less costs to sell methodology has been used as the improvement phase is ongoing.

Fair value less costs to sell calculations have been used to determine the recoverable amount of goodwill and other relevant net assets allocated to the Automotive and Powder Metallurgy groups of CGUs. When applying the fair value less cost to sell methodology, it has been difficult to assess a sale value using observable market inputs (level 1) or inputs based on market evidence (level 2) in the current environment and so unobservable inputs (level 3) have been used. A combination of discounted cash flows and EBITDA multiple valuations have been used to establish fair values for each of the groups of CGUs.

Under IAS 36, the benefits from future uncommitted restructuring plans are permitted when applying the fair value less costs to sell basis, to the extent that similar actions would be carried out by a market participant.

Based on impairment testing completed no impairment was identified in respect of either of the groups of CGUs. The COVID-19 pandemic had a significant effect on global end markets in which certain of the Group's businesses operate and whilst these markets continue to recover, there have been consequential impacts of disrupted supply chains, interest rate rises and other inflationary pressure on input costs. Implications on the levels of headroom are shown in sensitivity analysis which has been provided in respect of reasonably possible changes to key assumptions.

Significant assumptions and estimates

The basis of impairment tests and the key assumptions are set out in the table below:

	31 December 2022			31 December 2021			31 December 2020		
Groups of CGUs	**Post-tax discount rates**	**Long-term growth rates**	**Years in forecast**	**Post-tax discount rates**	**Long-term growth rates**	**Years in forecast**	**Post-tax discount rates**	**Long-term growth rates**	**Years in forecast**
Automotive	**11.3%**	**3.5%**	**5**	8.8%	2.5%	5	9.0%	2.5%	5
Powder Metallurgy	**12.0%**	**3.9%**	**5**	8.8%	2.5%	5	9.0%	2.5%	5

Risk adjusted discount rates

Cash flows within the groups of CGUs are discounted using a post-tax discount rate specific to each group of CGUs. Discount rates reflect the current market assessments of the time value of money and the territories in which the group of CGUs operates. In determining the cost of equity, the Capital Asset Pricing Model ("CAPM") has been used. Under CAPM, the cost of equity is determined by adding a risk premium, based on an industry adjustment ("Beta"), to the expected return of the equity market above the risk-free return. The relative risk adjustment reflects the risk inherent in each group of CGUs relative to all other sectors and geographies on average.

The cost of debt is determined using a risk-free rate based on the cost of government bonds, and an interest rate premium equivalent to a corporate bond with a similar credit rating to the Group.

Assumptions applied in financial forecasts

The Group prepares cash flow forecasts derived from financial budgets and medium-term forecasts. Each forecast has been prepared using a cash flow period deemed most appropriate by management, considering the nature of each group of CGUs. The key assumptions used in forecasting cash flows relate to future budgeted revenue and operating margins likely to be achieved and the expected rates of long-term growth by market sector. Underlying factors in determining the values assigned to each key assumption are shown below:

Revenue growth and operating margins:

Revenue growth assumptions in the forecast period are based on financial budgets and medium-term forecasts by management, taking into account industry growth rates and management's historical experience in the context of wider industry and economic conditions. Projected sales are built up with reference to markets and product categories. They incorporate past performance, historical growth rates, projections of developments in key markets, secured orders and orders forecast to be achieved in the short to medium-term given trends in the relevant market sector. Revenue assumptions are made using external market data, where available, and also consider the recovery period to return to pre COVID-19 levels.

Operating margins have been forecast based on historical levels achieved considering the likely impact of changing economic environments and competitive landscapes on volumes and revenues and the impact of management actions on costs. Projected margins reflect the impact of all initiated projects to improve operational efficiency and leverage scale and increases from returning sale volumes. The assumptions to derive operating margins take into account both normal cost saving activities and, where applicable, contribution from planned restructuring activity. Forecasts for other operating costs are based on inflation forecasts and supply and demand factors, taking into account climate change implications for affected markets.

Overall, climate risk exposure is considered to be relatively low across the divisions in the short and medium-term but starts to increase in the longer-term (from 2040), for example through increasing likelihood of river flooding risk in the UK or increasing wildfire risk in California. Impairment testing includes short to medium-term planning (five years) for each of the groups of CGUs, which will address known risks from climate change and other environmental factors impacting forecast costs as well as the opportunities in associated markets as they prepare for change e.g. electrification in automotive which impact revenues.

Automotive—The key drivers for growth in revenue and operating margins are global demand for a large range of cars, from smaller low-cost cars to larger premium vehicles. This is impacted in the short to medium-term by expectations of recovery in supply chains, interrupted by the COVID-19 pandemic. Demand is influenced by technological advancements, particularly in electric and full hybrid vehicles, market expectations for global vehicle production requirements, fuel prices, raw material input costs and expectations of their recovery, consumer spending, credit availability, and other macro-economic factors.

Powder Metallurgy—The key drivers for growth in revenue and operating margins are trends in the automotive and industrial markets. This is impacted in the short to medium-term by expectations of recovery in supply chains, interrupted by the COVID-19 pandemic. Market expectations for global light vehicle production requirements, raw material input costs and technological advancements, particularly in additive manufacturing, influence demand for these products along with other macro-economic factors.

Long-term growth rates:

Long-term growth rates are based on long-term forecasts for growth in the sectors and geography in which the groups of CGUs operates. Long-term growth rates are determined using long-term growth rate forecasts that take into account the international presence and the markets in which each business operates.

Sensitivity analysis

Due to consequential impacts from the COVID-19 pandemic of disrupted supply chains, interest rate rises and other inflationary pressure on input costs, certain businesses are mitigating the impact of volatile customer scheduling through cost reduction and efficiency actions, including restructuring. Both the Automotive and Powder Metallurgy groups of CGUs are affected at this point in the cycle, as they rely on the global automotive market.

Automotive group of CGUs—sensitivity analysis

The forecasts show headroom above the carrying amount for the Automotive group of CGUs. Sensitivity analysis has been carried out and a reasonably possible change in the discount rate and long-term growth rate from 11.25% to 12.50% or from 3.5% to 1.8% respectively would reduce headroom to £nil. Executing restructuring plans and continuing the recovery of inflationary impacts on input costs are key to margin assumptions and a reduction in the terminal operating profit of 15% would reduce the terminal operating margin by 1.6 percentage points and would reduce headroom to £nil.

Powder Metallurgy group of CGUs—sensitivity analysis

The forecasts show headroom of above the carrying amount for the Powder Metallurgy group of CGUs. Sensitivity analysis has been carried out and a reasonably possible change in the discount rate and long-term growth rate from 12.0% to 12.5% or from 3.9% to 3.2% respectively would reduce headroom to £nil. Executing restructuring plans and optimising market penetration are key to margin assumptions and a reduction in the terminal operating profit of 8% would reduce the terminal operating margin by 1.0 percentage points and would reduce headroom to £nil.

Allocation of significant intangible assets

The allocation of significant customer relationships and contracts, brands, intellectual property and technology is as follows:

	Customer relationships and contracts					
	Remaining amortisation period			Net book value		
	31 December 2022 years	31 December 2021 years	31 December 2020 years	31 December 2022	31 December 2021	31 December 2020
				£m	£m	£m
Automotive	**8**	9	10	**621**	670	790
Powder Metallurgy	**13**	14	15	**486**	492	551
Total				**1,107**	1,162	1,341

	Brands, intellectual property and technology					
	Remaining amortisation period			Net book value		
	31 December 2022 years	31 December 2021 years	31 December 2020 years	31 December 2022	31 December 2021	31 December 2020
				£m	£m	£m
Automotive	**16**	17	18	**261**	309	356
Powder Metallurgy	**16**	17	18	**56**	67	77
Total				**317**	376	433

10. Acquisitions

On 2 January 2020, Powder Metallurgy completed the acquisition of Forecast 3D, a leading US specialist in plastic additive manufacturing and 3D printing services, offering a full range of services from concept to series production, for a total consideration of up to £29 million. Cash of £19 million was paid on 2 January 2020, with the remaining £10 million contingent upon the performance of the business for up to two years post acquisition. This was subsequently released to 'acquisition and disposal related gains and losses' within adjusting items (Note 6) in 2021.

	Fair Value
	£m
Property, plant and equipment	11
Intangible assets	19
Inventories	1
Trade and other receivables	2
Trade and other payables	(4)
Provisions	(1)
Lease obligations	(9)
Deferred tax	(5)
Net assets acquired	**14**
Total consideration	29
Goodwill acquired	**15**

Forecast 3D contributed £15 million to revenue and a £3 million operating loss for the period between the date of acquisition and 31 December 2020. If the acquisition of Forecast 3D had been completed on the first day of the financial year, Group revenues and operating profit would have been unchanged.

The goodwill arising on acquisition of Forecast 3D is attributable to the anticipated profitability and cash flows arising from the business acquired, the assembled workforce, technical expertise, knowhow, market share and geographical advantages afforded to the Group, and which, the Group expects to realise through a combination of revised strategic direction, operational improvements and investment. None of the goodwill is expected to be deductible for income tax purposes.

Intangible assets inherent in Forecast 3D's customer relationships/contracts were valued using an excess earnings method. This methodology places a value on the asset as a function of (a) management's estimate of the expected cash flows arising from the customer contracts; (b) discount rates reflective of the risks inherent in the cash flows; and (c) a contributory charge attributable to assets needed to generate the operating cash flows.

The proprietary technology and know-how have been valued using a relief from royalty methodology, consistent with the Group accounting policy. The cash flow forecasts supporting this valuation reflect the future sales to be generated in conjunction with the technology. A total fair value of £19 million was recognised in intangible assets relating to customer relationships and technology.

11. Property, plant and equipment

	Land and buildings	Plant and equipment	Total
	£m	£m	£m
Cost			
At 1 January 2020	599	1,724	2,323
Additions	26	137	163
Right-of-use asset reassessments	(1)	—	(1)
Acquisition of businesses(1)	3	8	11
Disposals	(1)	(32)	(33)
Exchange adjustments	4	16	20
At 31 December 2020	630	1,853	2,483
Additions	41	123	164
Disposals	(3)	(33)	(36)
Disposal of businesses	(28)	(181)	(209)
Exchange adjustments	(29)	(63)	(92)
At 31 December 2021	611	1,699	2,310
Additions	23	202	225
Disposals	(14)	(85)	(99)
Exchange adjustments	35	185	220
At 31 December 2022	**655**	**2,001**	**2,656**
Accumulated depreciation and impairment			
At 1 January 2020	(31)	(174)	(205)
Charge for the year	(31)	(245)	(276)
Disposals	—	25	25
Impairments(2)	(7)	(45)	(52)
Exchange adjustments	—	(3)	(3)
At 31 December 2020	(69)	(442)	(511)
Charge for the year	(29)	(236)	(265)
Disposals	2	28	30
Disposal of businesses	26	180	206
Impairments(2)	(21)	(30)	(51)
Exchange adjustments	2	21	23
At 31 December 2021	(89)	(479)	(568)
Charge for the year	(30)	(221)	(251)
Disposals	2	81	83
Impairments(2)	—	(7)	(7)
Exchange adjustments	(4)	(96)	(100)

	Land and buildings	Plant and equipment	Total
	£m	£m	£m
At 31 December 2022	**(121)**	**(722)**	**(843)**
Net book value			
At 31 December 2022	**534**	**1,279**	**1,813**
At 31 December 2021	522	1,220	1,742
At 31 December 2020	561	1,411	1,972

(1) Acquisition of businesses in 2020 related to the purchase of Forecast 3D in the Powder Metallurgy division (Note 10).

(2) Includes £nil (2021: £51 million, 2020: £17 million) in restructuring costs and £7 million (2021: £nil, 2020: £35 million) in impairment of assets, both shown as adjusting items (Note 6).

Assets under the course of construction at 31 December 2022 totalled £156 million (31 December 2021: £113 million, 31 December 2020: £153 million).

The basis of testing for impaired assets at 31 December 2022, which resulted in a charge totalling £7 million, primarily used fair value less costs to sell methodology which was classified as a level 3 fair value under the IFRS 13 fair value hierarchy. The assets were deemed to have no further recoverable value.

Property, plant and equipment includes the net book value of right-of-use assets as follows:

Right-of-use asset	Land and buildings	Plant and equipment	Total
	£m	£m	£m
At 1 January 2020	134	45	179
Additions	5	7	12
Acquisition of businesses	3	6	9
Right-of-use asset reassessments	(1)	—	(1)
Depreciation	(13)	(14)	(27)
Disposals	(1)	—	(1)
Impairments	—	(2)	(2)
Exchange adjustments	(2)	(2)	(4)
At 31 December 2020	125	40	165
Additions	17	6	23
Depreciation	(13)	(11)	(24)
Disposals	(1)	—	(1)
Exchange adjustments	(8)	(4)	(12)
At 31 December 2021	120	31	151
Additions	7	7	14
Depreciation	(14)	(10)	(24)
Disposals	(4)	—	(4)
Exchange adjustments	5	2	7
At 31 December 2022	**114**	**30**	**144**

12. Equity accounted investments

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Aggregated amounts relating to equity accounted investments:			
Share of current assets	**409**	400	331
Share of non-current assets	**311**	339	358
Share of current liabilities	**(289)**	(310)	(262)
Share of non-current liabilities	**(7)**	(7)	(5)
Interests in equity accounted investments	**424**	422	422

Group share of results	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	**£m**	**£m**
Revenue	**651**	608	585
Operating costs	**(573)**	(542)	(523)
Adjusted operating profit	**78**	66	62
Adjusting items	**(22)**	(21)	(22)
Net finance income	**2**	2	—
Profit before tax	**58**	47	40
Tax	**(9)**	(9)	(8)
Share of results of equity accounted investments	**49**	38	32

Group share of equity accounted investments	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	**£m**	**£m**
At 1 January	**422**	422	429
Share of results of equity accounted investments	**49**	38	32
Dividends paid to the Group	**(59)**	(52)	(54)
Exchange adjustments	**12**	14	15
At 31 December	**424**	422	422

Within the Group's share of equity accounted investments there is one significant joint venture, held within the Automotive segment, Shanghai GKN HUAYU Driveline Systems Co Limited ("SDS"). SDS had total sales in the year of £1,243 million (2021: £1,159 million, 2020: £1,101 million), adjusted operating profit of £142 million (2021: £116 million, 2020: £116 million), adjusting items of £44 million (2021: £41 million, 2020: £44 million), statutory operating profit of £98 million (2021: £75 million, 2020: £72 million), an interest credit of £4 million (2021: £4 million, 2020: £nil) and a tax charge of £18 million (2021: £16 million, 2020: £15 million), leaving retained profit of £84 million (2021: £63 million, 2020: £57 million).

Total net assets of SDS at 31 December 2022 were £786 million (31 December 2021: £790 million, 31 December 2020: £798 million). These comprised non-current assets of £580 million (31 December 2021: £636 million, 31 December 2020: £684 million), current assets of £715 million (31 December 2021: £668 million, 31 December 2020: £598 million), current liabilities of £504 million (31 December 2021: £508 million, 31 December 2020: £484 million) and non-current liabilities of £5 million (31 December 2021: £6 million, 31 December 2020: £nil). During 2022, SDS paid a dividend to the Group of £58 million (2021: £50 million, 2020: £53 million).

13. Inventories

	31 December 2022	31 December 2021	31 December 2020
	£m	**£m**	**£m**
Raw materials	**273**	235	224
Work in progress	**134**	108	111
Finished goods	**91**	93	102
	498	436	437

In 2022 the write down of inventories to net realisable value amounted to £16 million (2021: £27 million, 2020: £29 million), of which £2 million related to impairment of assets (2021: £nil, 2020: £2 million) and £nil related to restructuring activities (2021: £8 million, 2020: £nil). These are included within adjusting items (Note 6). The reversal of write downs amounted to £17 million (2021: £9 million, 2020: £4 million). Write downs and reversals in both years relate to ongoing assessments of inventory obsolescence, excess inventory holding and inventory resale values across all of the Group's businesses.

The Executive Directors consider that there is no material difference between the net book value of inventories and their replacement cost.

14. Trade and other receivables

Current	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Trade receivables	**524**	412	532
Allowance for expected credit loss	**(13)**	(14)	(16)
Amounts receivable from Related Parties	**3**	2	—
Other receivables	**100**	73	71
Prepayments	**11**	12	11
Contract assets	**13**	20	9
	638	505	607

Trade receivables are non-interest-bearing. Credit terms offered to customers vary upon the country of operation but are generally between 30 and 90 days.

Non-current	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Other receivables	**14**	4	1
Contract assets	**7**	7	6
	21	11	7

As described in Note 21, certain businesses participate in receivables working capital programmes and have the ability to choose whether to receive payment earlier than the normal due date, for specific customers on a non-recourse basis. As at 31 December 2022, eligible receivables under these programmes have been factored and derecognised in line with the derecognition criteria of IFRS 9.

An allowance has been made for expected lifetime credit losses with reference to past default experience and management's assessment of credit worthiness over trade receivables, an analysis of which is as follows:

	Automotive	Powder Metallurgy	Hydrogen	Total
	£m	£m	£m	£m
At 1 January 2020	12	5	—	17
Utilised	(1)	—	—	(1)
At 31 December 2020	11	5	—	16
Income Statement credit	(1)	—	—	(1)
Utilised	(1)	—	—	(1)
At 31 December 2021	9	5	—	14
Income Statement (credit)/charge	(3)	1	—	(2)
Exchange adjustments	—	1	—	1
At 31 December 2022	**6**	**7**	**—**	**13**

The concentration of credit risk is limited due to the large number of unrelated customers. Credit control procedures are implemented to ensure that sales are only made to organisations that are willing and able to pay for them. Such procedures include the establishment and review of customer credit limits and terms. The Group does not hold any collateral or any other credit enhancements over any of its trade receivables nor does it have a legal right of offset against any amounts owed by the Group to the counterparty.

The ageing of impaired trade receivables past due is as follows:

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
0–30 days	**4**	4	5
31–60 days	**2**	4	5
60+ days	**7**	6	6
	13	14	16

Included in the Group's trade receivables balance are overdue trade receivables with a gross carrying amount of £35 million (31 December 2021: £35 million, 31 December 2020: £34 million) against which a provision of £13 million (31 December 2021: £14 million, 31 December 2020: £16 million) is held.

There are no amounts provided against balances that are not overdue as these are deemed recoverable, following an assessment for impairment in accordance with policies described in Note 2.

The ageing of the balance deemed recoverable of £22 million (31 December 2021: £21 million, 31 December 2020: £18 million) is as follows:

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
0–30 days	**19**	18	17
31–60 days	**3**	3	1
60+ days	**—**	—	—
	22	21	18

The Executive Directors consider that the carrying amount of trade and other receivables approximates to their fair value.

The Group's contract assets comprise the following:

	Participation fees	Other	Total
	£m	£m	£m
At 1 January 2020	10	1	11
Additions	3	7	10
Utilised	(2)	(4)	(6)
At 31 December 2020	11	4	15
Additions	3	15	18
Utilised	(2)	(4)	(6)
At 31 December 2021	12	15	27
Additions	1	—	1
Utilised	(3)	(5)	(8)
At 31 December 2022	**10**	**10**	**20**

An assessment for impairment of contract assets has been performed in accordance with policies described in Note 2. No such impairment has been recorded.

Participation fees

Participation fees are described in the accounting policies in Note 2 and are considered to be a reduction in revenue for the related customer contract. Amounts are capitalised and 'amortised' to match to the related performance obligation.

15. Cash and cash equivalents

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Cash and cash equivalents	**270**	275	141

Cash and cash equivalents comprises cash at bank and in hand which earns interest at floating rates based on daily bank deposit rates and short-term deposits which are made for varying periods of between one day and one month. The carrying amount of these assets is considered to be equal to their fair value.

16. Trade and other payables

Current	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Trade payables	**714**	579	621
Amounts payable to Related Parties	**13**	14	11
Other payables	**300**	268	338
Customer advances and contract liabilities	**7**	11	16
Other taxes and social security	**25**	18	20
Accruals	**122**	110	115
Deferred government grants	**7**	8	10
	1,188	1,008	1,131

As at 31 December 2022, and as described in Note 21, included within trade payables were drawings on supplier finance facilities of £125 million (31 December 2021: £52 million, 31 December 2020: £14 million).

Trade payables are non-interest-bearing. Normal settlement terms vary by country and the average credit period taken for trade and other payables is 89 days (31 December 2021: 86 days, 31 December 2020: 71 days).

Non-current	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Other payables	**20**	14	10
Customer advances and contract liabilities	**8**	12	3
	28	26	13

The Executive Directors consider that the carrying amount of trade and other payables approximates to their fair value. Non-current other payables fall due for payment within one to two years.

17. Loans with Related Parties

Loans with Related Parties comprise loans with the Ultimate Parent, or other non-group entities controlled by the Ultimate Parent. Amounts owed by the Group totalled £2,176 million (31 December 2021: £2,547 million, 31 December 2020: £2,602 million), are unsecured, accumulate interest in the range 1% to 5% (2021: 0% to 6%, 2020: 0% to 6%), are repayable on demand and have no fixed date of repayment.

Amounts owed to the Group totalled £2,826 million (31 December 2021: £3,378 million, 31 December 2020: £3,295 million), are unsecured, accumulate interest in the range 0% to 7% (2021: 0% to 4%, 2020: 0% to 4%), are repayable on demand and have no fixed date of repayment.

Maturity of financial liabilities (excluding lease obligations)

The table below shows the maturity profile of anticipated future cash flows, including interest, on an undiscounted basis in relation to the Group's financial liabilities (other than those associated with currency risk, which are shown in Note 21, and lease obligations which are shown in Note 24).

	Loans payable to Related Parties	Other financial liabilities	Total financial liabilities
	£m	£m	£m
Within one year	2,176	1,149	3,325
In one to two years	—	20	20
In two to five years	—	—	—
After five years	—	—	—
Effect of financing rates	—	—	—
31 December 2022	**2,176**	**1,169**	**3,345**
Within one year	2,547	955	3,502
In one to two years	—	26	26
In two to five years	—	—	—
After five years	—	—	—
Effect of financing rates	—	—	—
31 December 2021	2,547	981	3,528
Within one year	2,602	1,082	3,684
In one to two years	—	13	13
In two to five years	—	—	—
After five years	—	—	—
Effect of financing rates	—	—	—
31 December 2020	2,602	1,095	3,697

18. Provisions

	Loss-making contracts	Property related costs	Environmental and litigation	Warranty related costs	Restructuring	Other	Total
	£m	£m	£m	£m	£m	£m	£m
At 1 January 2022	70	5	66	174	45	43	403
Utilised	(17)	—	(3)	(12)	(82)	(1)	(115)
Charge to operating profit(1)	—	—	3	30	58	4	95
Release to operating profit(2)	(7)	—	(4)	(45)	(2)	(14)	(72)
Unwind of discount(3)	(1)	—	—	—	—	—	(1)
Exchange adjustments	1	—	5	9	1	—	16
31 December 2022	**46**	**5**	**67**	**156**	**20**	**32**	**326**
Current	14	2	24	76	19	5	140
Non-current	32	3	43	80	1	27	186
	46	**5**	**67**	**156**	**20**	**32**	**326**

	Loss-making contracts	Property related costs	Environmental and litigation	Warranty related costs	Restructuring	Other	Total
	£m	£m	£m	£m	£m	£m	£m
At 1 January 2021	119	14	104	174	44	36	491
Utilised	(25)	—	(5)	(15)	(84)	(1)	(130)
Charge to operating profit(1)	—	—	2	50	87	10	149
Release to operating profit(2)	(18)	(8)	(34)	(30)	—	(1)	(91)
Disposal of businesses	(4)	—	—	(1)	—	—	(5)
Unwind of discount(3)	(2)	—	—	—	—	—	(2)
Exchange adjustments	—	(1)	(1)	(4)	(2)	(1)	(9)
31 December 2021	70	5	66	174	45	43	403
Current	18	2	22	85	43	3	173
Non-current	52	3	44	89	2	40	230
	70	5	66	174	45	43	403

	Loss-making contracts	Property related costs	Environmental and litigation	Warranty related costs	Restructuring	Other	Total
	£m	£m	£m	£m	£m	£m	£m
At 1 January 2020	167	16	64	158	64	19	488
Utilised	(26)	(1)	(7)	(24)	(106)	(2)	(166)
Charge to operating profit(1)	13	—	55	57	95	19	239
Release to operating profit(2)	(42)	(2)	(6)	(18)	(10)	—	(78)
Acquisition of businesses(4)	—	1	—	—	—	—	1
Unwind of discount(3)	4	—	—	—	—	—	4
Exchange adjustments	3	—	(2)	1	1	—	3
31 December 2020	119	14	104	174	44	36	491
Current	23	2	56	81	42	3	207
Non-current	96	12	48	93	2	33	284
	119	14	104	174	44	36	491

(1) Includes £58 million (2021: £89 million, 2020: £113 million) of adjusting items and £37 million (2021: £60 million, 2020: £126 million) recognised in adjusted operating profit.

(2) Includes £11 million (2021: £21 million, 2020: £55 million) of adjusting items and £61 million (2021: £70 million, 2020: £23 million) recognised in adjusted operating profit.

(3) Includes £1 million within finance costs relating to the time value of money (2021: £1 million 2020: £1 million) and a £2 million credit relating to changes in discount rates on loss-making contract provisions recognised as fair value items (2021: credit of £3 million, 2020: charge of £3 million) which was included as an adjusting item within operating profit in 2021 and 2020 (Note 6).

(4) Acquisition of businesses in 2020 related to the purchase of Forecast 3D in the Powder Metallurgy division (Note 10).

Loss-making contracts

Provisions for loss-making contracts are considered to exist where the Group has a contract under which the unavoidable costs of meeting the obligations exceed the economic benefits expected to be received under it. This obligation has been discounted and will be utilised over the period of the respective contracts, which is up to 15 years.

Calculation of loss-making contract provisions is based on contract documentation and delivery expectations, along with an estimate of directly attributable costs and represents management's best estimate of the unavoidable costs of fulfilling the contract.

Utilisation during the year of £17 million (2021: £25 million, 2020: £26 million) has benefitted adjusted operating profit with £15 million recognised in Automotive, £2 million recognised in Powder Metallurgy and £nil recognised in Hydrogen. In addition, £7 million (2021: £18 million, 2020: £29 million) has been released on a net basis and is shown as an adjusting item, as described in Note 6, as part of the release of fair value items split; £nil in Automotive, £7 million in Powder Metallurgy and £nil in Hydrogen.

Property related costs

The provision for property related costs represents dilapidation costs for ongoing leases and is expected to result in cash expenditure over the next eight years. Calculation of dilapidation obligations are based on lease agreements with landlords and external quotes or, in the absence of specific documentation, management's best estimate of the costs required to fulfil obligations.

Environmental and litigation

Environmental provisions relate to the estimated remediation costs of pollution, soil and groundwater contamination at certain sites and amounted to £18 million (31 December 2021: £19 million, 31 December 2020: £20 million). Liabilities for environmental costs are recognised when environmental assessments are probable and the associated costs can be reasonably estimated.

Litigation provisions related to estimated future costs and settlements in relation to legal claims and associated insurance obligations and totalled £49 million (31 December 2021: £47 million, 31 December 2020: £84 million). The Group has on occasion been required to take legal or other actions to defend itself against proceedings brought by other parties. Provisions are made for the expected costs associated with such matters, based on past experience of similar items and other known factors, considering professional advice received. This represents management's best estimate of the likely outcome. The timing of utilisation of these provisions is frequently uncertain, reflecting the complexity of issues and the outcome of various court proceedings and negotiations. Contractual and other provisions represent management's best estimate of the cost of settling future obligations and reflect management's assessment of the likely settlement method, which may change over time. However, no provision is made for proceedings which have been, or might be, brought by other parties against Group companies unless management, considering professional advice received, assess that it is more likely than not that such proceedings may be successful.

Warranty related costs

Provisions for the expected cost of warranty obligations under local sale of goods legislation are recognised at the date of sale of the relevant products and subsequently updated for changes in estimates as necessary. The provision for warranty related costs represents the best estimate of the expenditure required to settle the Group's obligations, based on past experience, recent claims and current estimates of costs relating to specific claims. Warranty terms are, on average, between one and five years.

Restructuring

Restructuring provisions relate to committed costs in respect of restructuring programmes, as described in Note 6, usually resulting in cash spend within one year. A restructuring provision is recognised when the Group has developed a detailed formal plan for the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by either starting to implement the plan or by announcing its main features to those affected by it. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring, which are those amounts that are necessarily entailed by the restructuring programmes.

Other

Other provisions include long-term incentive plans for senior management which are expected to result in cash expenditure during the next three years.

Where appropriate, provisions have been discounted using discount rates between 0% and 14% (31 December 2021: 0% and 11%, 31 December 2020: 0% and 7%) depending on the territory in which the provision resides and the length of its expected utilisation.

19. Deferred tax

The following are the major deferred tax assets and liabilities recognised by the Group and movements thereon during the current and prior years.

	Deferred tax assets	Deferred tax liabilities			
	Tax losses and other assets	Accelerated capital allowances and other liabilities	Deferred tax on intangible assets	Total deferred tax liabilities	Total net deferred tax
	£m	£m	£m	£m	£m
At 1 January 2020	136	(27)	(285)	(312)	(176)
Acquisition of businesses(1)	—	—	(5)	(5)	(5)
Credit to income	19	2	35	37	56
Exchange adjustments	5	1	(2)	(1)	4
Transactions with Related Parties(2)	2	—	—	—	2
Movement in set off of assets and liabilities(3)	(21)	13	8	21	—
At 31 December 2020	141	(11)	(249)	(260)	(119)
(Charge)/credit to income	(58)	38	19	57	(1)
Charge to Total Invested Capital	—	(28)	—	(28)	(28)
Disposal of businesses	—	6	—	6	6
Exchange adjustments	(16)	3	11	14	(2)
Transactions with Related Parties(2)	(11)	(26)	—	(26)	(37)
Movement in set off of assets and liabilities(3)	31	(5)	(26)	(31)	—
At 31 December 2021	87	(23)	(245)	(268)	(181)
Credit/(charge) to income	16	(34)	49	15	31
(Credit)/charge to Total Invested Capital	(42)	15	—	15	(27)
Exchange adjustments	15	(1)	(22)	(23)	(8)
Transactions with related parties(2)	(10)	1	—	(1)	(9)
Movement in set off of assets and liabilities(3)	33	(2)	(31)	(33)	—
At 31 December 2022	**99**	**(44)**	**(249)**	**(293)**	**(194)**

(1) Acquisition of businesses in 2020 related to the purchase of Forecast 3D in the Powder Metallurgy division (Note 10).

(2) Transactions with Related Parties include the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent.

(3) Set off of deferred tax assets and liabilities in accordance with IAS 12 within territories with a right of set off.

As at 31 December 2022, the Group had gross unused corporate income tax losses of £379 million (31 December 2021: £329 million, 31 December 2020: £531 million) available for offset against future profits. A deferred tax asset of £90 million (31 December 2021: £73 million, 31 December 2020: £102 million) has been recognised in respect of £343 million (31 December 2021: £252 million, 31 December 2020: £417 million) of these gross losses. No asset has been recognised in respect of the remaining losses due to the divisional and geographic split of anticipated future profit streams. Most of these losses may be carried forward indefinitely subject to certain continuity of business requirements. Where losses are subject to time expiry, a deferred tax asset is recognised to the extent that sufficient future profits are anticipated to utilise these losses. Despite incurring tax losses in certain territories due to the effects of COVID-19, the Group continues to recognise deferred tax assets in those territories as it is confident that the global recovery, together with restructuring actions taken, will result in future taxable profits against which the deferred tax assets will be realised. In addition to the corporate income tax losses included above, a deferred tax asset of £17 million (31 December 2021: £25 million, 31 December 2020: £30 million) has been recognised on tax credits (primarily US) and US state tax losses.

Deferred tax assets have also been recognised on Group retirement benefit obligations at £62 million (31 December 2021: £117 million, 31 December 2020: £122 million) and on other temporary differences at £63 million (31 December 2021: £44 million, 31 December 2020: £83 million). The gross deferred tax assets therefore amount to £232 million (31 December 2021: £259 million, 31 December 2020: £337 million).

Deferred tax liabilities have been recognised on intangible assets at £363 million (31 December 2021: £388 million, 31 December 2020: £417 million) and accelerated capital allowances and other temporary differences at £63 million (31 December 2021: £52 million, 31 December 2020: £39 million). The gross deferred tax liabilities therefore amount to £426 million (31 December 2021: £440 million, 31 December 2020: £456 million).

There are no material unrecognised deferred tax assets at 31 December 2022 (31 December 2021: £nil, 31 December 2020: £nil), other than the losses referred to above.

No deferred tax is recognised on the unremitted earnings of overseas subsidiaries except where the distribution of such profits is planned. If these earnings were remitted in full, tax of £60 million (31 December 2021: £50 million, 31 December 2020: £56 million) would be payable.

20. Retirement benefit obligations

Defined contribution plans

The Group operates defined contribution plans for qualifying employees across several jurisdictions. The assets of the plans are held separately from those of the Group in funds under the control of Trustees.

The total costs charged during the year of £13 million (2021: £14 million, 2020: £14 million) represent contributions payable to these plans by the Group at rates specified in the rules of the plans.

Defined benefit plans

The Group sponsors defined benefit plans for qualifying employees of certain subsidiaries. The funded defined benefit plans are administered by separate funds that are legally separated from the Group. The Trustees of the funds are required by law to act in the interest of the fund and of all relevant stakeholders in the plans. The Trustees of the pension funds are responsible for the investment policy with regard to the assets of the fund.

During the year, effective as at 1 January 2022, the Group transferred part of the GKN post-retirement medical plan to an entity controlled by the Ultimate Parent but outside of the Group. This resulted in a reduction of £5 million in the retirement benefit obligation. There were no assets associated with the scheme, with consideration being settled through loans with Related Parties.

During the prior year, effective as at 31 December 2021, a buy-out was performed on the GKN UK 2016 Pension Plan, a scheme sponsored by an entity controlled by the Ultimate Parent but outside of the Group. The remaining liabilities of £60 million for members who were not part of the buy-out, along with residual assets of £104 million were transferred into GKN Group Pension Scheme Number 2, a scheme within the Group. The net £44 million of assets was settled through loans with Related Parties.

The most significant defined benefit pension plans in the Group at 31 December 2022 were:

GKN Group Pension Schemes (Numbers 2 and 3)

The GKN Group Pension Schemes (Numbers 2 and 3) are shown within the Automotive segment. These plans are funded, closed to new members and were closed to future accrual in 2017. The valuation of the plans was based on a full actuarial valuation as of 5 April 2022, updated to 31 December 2022 by independent actuaries.

GKN US Consolidated Pension Plan

The GKN US Consolidated Pension Plan is a funded plan, closed to new members and closed to future accrual. The US Pension Plan valuation was based on a full actuarial valuation as of 1 January 2022, updated to 31 December 2022 by independent actuaries.

GKN Germany Pension Plans

The GKN Germany Pension Plans provide benefits dependent on final salary and service with the Company. The plans are generally unfunded and closed to new members.

Other plans include a number of funded and unfunded defined benefit arrangements and retiree medical insurance plans, predominantly in the US and Europe.

The cost of the Group's defined benefit plans is determined in accordance with IAS 19 (revised): Employee benefits using the advice of independent professionally qualified actuaries on the basis of formal actuarial valuations and using the projected unit credit method. In line with normal practice, these valuations are undertaken triennially in the UK and annually in the US and Germany.

Contributions

During the prior year, the funding target agreed on acquisition of GKN was achieved, being gilts plus 75 basis points for the GKN Group Pension Schemes (Numbers 2 and 3). As a result, the Group now contributes £15 million per year into the GKN Group Pension Schemes (Numbers 2 and 3).

The Group contributed £40 million (2021: £40 million, 2020: £52 million) to defined benefit pension plans and post-employment plans in the year ended 31 December 2022. The Group expects to contribute £33 million in 2023.

Actuarial assumptions

The major assumptions used by the actuaries in calculating the Group's pension liabilities are as set out below:

	Rate of increase of pensions in payment % per annum	Discount rate %	Price inflation (RPI/CPI) %
31 December 2022			
GKN Group Pension Schemes (Numbers 2 and 3)	**2.7**	**4.8**	**3.2/2.7**
GKN US plans	**n/a**	**5.0**	**n/a**
GKN Europe plans	**2.6**	**3.7**	**2.6/2.6**
31 December 2021			
GKN Group Pension Schemes (Numbers 2 and 3)	2.7	2.0	3.2/2.7
GKN US plans	n/a	2.7	n/a
GKN Europe plans	2.1	1.1	2.1/2.1
31 December 2020			
GKN Group Pension Schemes (Numbers 2 and 3)	2.4	1.4	2.7/2.2
GKN US plans	n/a	2.4	n/a
GKN Europe plans	1.4	0.6	1.4/1.4

Mortality

GKN Group Pension Schemes (Numbers 2 and 3)

The GKN Group Pension Schemes (Numbers 2 and 3) use the SAPS "S3PA" base tables with scheme-specific adjustments. The base table mortality assumption for each of the UK plans reflects best estimate results from the most recent mortality experience analyses for each scheme. Weighting factors vary by scheme.

Future improvements for all UK plans are in line with the 2021 Continuous Mortality Investigation ("CMI") core projection model (SK = 7.5, A = 0%) with a long-term rate of improvement of 1.25% p.a. for both males and females.

GKN US Consolidated Pension Plan

GKN US Pension and Medical Plans use base mortality tables that are adjusted for recent plan experience (equivalent to RP2006 projected to 2018 using scale MP2018 with a 6.1% load). Future improvements for all US plans are in line with MP2021.

GKN Germany Pension Plans

All German plans use the Richttafein 2018 G tables, with no adjustment.

The following table shows the future life expectancy of individuals aged 65 at the year end and the future life expectancy of individuals aged 65 in 20 years' time.

	GKN Group Pension Schemes (Numbers 2 and 3) Years	GKN US Consolidated Pension Plan Years	GKN Germany Pension Plans Years
Male today	21.2	19.2	20.6
Female today	23.2	21.1	24.0
Male in 20 years' time	22.3	20.7	23.4
Female in 20 years' time	24.6	22.6	26.3

Carve-out Balance Sheet disclosures

The amounts recognised in the Carve-out Balance Sheet in respect of defined benefit plans were as follows:

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Present value of funded defined benefit obligations	**(780)**	(1,132)	(1,168)
Fair value of plan assets	**779**	1,205	1,067
Funded status	**(1)**	73	(101)
Present value of unfunded defined benefit obligations	**(460)**	(601)	(647)
Net liabilities	**(461)**	(528)	(748)
Analysed as:			
Retirement benefit surplus (non-current assets)[1]	**42**	75	—
Retirement benefit obligations (non-current liabilities)	**(503)**	(603)	(748)
Net liabilities	**(461)**	(528)	(748)

(1) Includes a surplus relating to the GKN Group Pension Plan (Number 2) of £40 million (31 December 2021, £71 million, 31 December 2020: £nil) and the Japan Employee plan of £2 million (31 December 2021: £4 million, 31 December 2020: £nil).

The net retirement benefit obligation is attributable to Automotive: liability of £427 million (31 December 2021: £484 million, 31 December 2020: £693 million), Powder Metallurgy: liability of £34 million (31 December 2021: £37 million, 31 December 2020: £47 million), Hydrogen: £nil (31 December 2021: £nil, 31 December 2020: £nil) and Corporate: liability of £nil (31 December 2021: £7 million, 31 December 2020: £8 million).

The plan assets and liabilities at the year end were as follows:

31 December 2022	UK Plans[1]	US Plans	European Plans	Other Plans	Total
	£m	£m	£m	£m	£m
Plan assets	666	73	19	21	**779**
Plan liabilities	(651)	(127)	(433)	(29)	**(1,240)**
Net assets/(liabilities)	15	(54)	(414)	(8)	**(461)**

31 December 2021	UK Plans[1]	US Plans	European Plans	Other Plans	Total
	£m	£m	£m	£m	£m
Plan assets	1,020	132	23	30	**1,205**
Plan liabilities	(955)	(190)	(554)	(34)	**(1,733)**
Net assets/(liabilities)	65	(58)	(531)	(4)	**(528)**

31 December 2020	UK Plans(1)	US Plans	European Plans	Other Plans	Total
	£m	£m	£m	£m	£m
Plan assets	882	126	25	34	**1,067**
Plan liabilities	(976)	(211)	(587)	(41)	**(1,815)**
Net liabilities	(94)	(85)	(562)	(7)	**(748)**

(1) Includes a liability in respect of the GKN post-employment medical plans of £2 million (31 December 2021: £7 million, 31 December 2020: £8 million) and a net surplus in respect of the GKN Group Pension Schemes (Numbers 2 and 3) of £17 million (31 December 2021: £72 million, 31 December 2020: net deficit of £86 million).

The major categories and fair values of plan assets at the end of the year for each category were as follows:

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Equities	**54**	100	248
Government bonds	**310**	537	349
Corporate bonds	**72**	197	186
Property	**7**	29	36
Insurance contracts	**14**	17	19
Multi-strategy/Diversified growth funds	**121**	143	13
Private equity	**41**	75	63
Other(1)	**160**	107	153
Total	**779**	1,205	1,067

(1) Primarily consists of cash collateral and liability driven investments.

The assets were well diversified and the majority of plan assets had quoted prices in active markets. All government bonds were issued by reputable governments and were generally AA rated or higher. Interest rate and inflation rate swaps were also employed to complement the role of fixed and index-linked bond holdings for liability risk management.

The Trustees continually review whether the chosen investment strategy is appropriate with a view to providing the pension benefits and to ensure appropriate matching of risk and return profiles. The main strategic policies included maintaining an appropriate asset mix, managing interest rate sensitivity and maintaining an appropriate equity buffer. Investment results are regularly reviewed.

Movements in the present value of defined benefit obligations during the year:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
At 1 January	**1,733**	1,815	1,760
Current service cost	**9**	9	10
Past service cost(1)	**—**	—	—
Interest cost on obligations	**31**	23	32
Remeasurement (losses)/gains—demographic	**1**	(6)	(1)
Remeasurement (gains)/losses—financial	**(508)**	(41)	132
Remeasurement (losses)/gains—experience	**44**	(20)	(62)
Benefits paid out of plan assets	**(61)**	(51)	(55)
Benefits paid out of Group assets for unfunded plans	**(18)**	(17)	(20)
Transfers(2)	**(5)**	60	—
Settlements	**(35)**	(2)	(6)
Disposal of businesses	**—**	(3)	—
Exchange adjustments	**49**	(34)	25
At 31 December	**1,240**	1,733	1,815

(1) An expense of £1 million was recorded in the year ended 31 December 2020 as a past service cost in respect of the gender equalisation of guaranteed minimum pension ("GMP") benefits in the UK and was treated as an adjusting item (Note 6). This is offset by a £1 million past service credit recorded in adjusting operating profit.

(2) Effective as at 1 January 2022, the Group transferred part of the GKN post-retirement medical plan to an entity controlled by the Ultimate Parent but outside of the Group. This resulted in a reduction of £5 million in the retirement benefit obligation. There were no assets associated with the scheme, with consideration being settled through loans with Related Parties. At 31 December 2021, following the buy-out of the GKN UK 2016 Pension Plan held by an entity controlled by the Ultimate Parent but outside of the Group, the remaining liabilities for members who were not part of the buy-out, along with the residual assets, were transferred into the GKN Group Pension Scheme Number 2, which is held within the Group.

The defined benefit plan liabilities were 18% (31 December 2021: 26%, 31 December 2020: 22%) in respect of active plan participants, 23% (31 December 2021: 24%, 31 December 2020: 19%) in respect of deferred plan participants and 59% (31 December 2021: 50%, 31 December 2020: 59%) in respect of pensioners.

The weighted average duration of the defined benefit plan liabilities at 31 December 2022 was 13 years (31 December 2021: 17 years, 31 December 2020: 15 years).

Movements in the fair value of plan assets during the year:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
At 1 January	**1,205**	1,067	949
Interest income on plan assets	**25**	16	20
(Loss)/return on plan assets, excluding interest income	**(391)**	53	131
Contributions	**22**	23	32
Benefits paid out of plan assets	**(61)**	(51)	(55)
Plan administrative costs	**(4)**	(3)	(4)
Transfers[1]	**—**	104	—
Settlements	**(33)**	(2)	(4)
Exchange adjustments	**16**	(2)	(2)
At 31 December	**779**	1,205	1,067

(1) At 31 December 2021, following the buy-out of the GKN UK 2016 Pension Plan held by an entity controlled by the Ultimate Parent but outside of the Group, the remaining liabilities for members who were not part of the buy-out, along with the residual assets, were transferred into the GKN Group Pension Scheme Number 2, which is held within the Group.

The actual return on plan assets was a loss of £366 million (2021: gain of £69 million, 2020: gain of £151 million).

Carve-out Income Statement disclosures

Amounts recognised in the Carve-out Income Statement in respect of these defined benefit plans were as follows:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
Included within operating profit/(loss):			
—current service cost	**(9)**	(9)	(10)
—past service cost[1]	**—**	—	—
—settlements	**2**	—	2
—plan administrative costs	**(4)**	(3)	(4)
Included within net finance costs:			
—interest cost on defined benefit obligations	**31**	(23)	(32)
—interest income on plan assets	**(25)**	16	20

(1) An expense of £1 million was recorded in the year ended 31 December 2020 as a past service cost in respect of the gender equalisation of guaranteed minimum pension ("GMP") benefits in the UK and was treated as an adjusting item (Note 6). This is offset by a £1 million past service credit recorded in adjusted operating profit.

Carve-out Statement of Comprehensive Income disclosures

Amounts recognised in the Carve-out Statement of Comprehensive Income in respect of these defined benefit plans were as follows:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
(Loss)/return on plan assets, excluding interest income	**(391)**	53	131
Remeasurement (losses)/gains arising from changes in demographic assumptions	**(1)**	6	1
Remeasurement gains/(losses) arising from changes in financial assumptions	**508**	41	(132)
Remeasurement (losses)/gains arising from experience adjustments	**(44)**	20	62
Net remeasurement gain on retirement benefit obligations	**72**	120	62

Risks and sensitivities

The defined benefit plans expose the Group to actuarial risks, such as longevity risk, inflation risk, interest rate risk and market (investment) risk. The Group is not exposed to any unusual, entity specific or plan specific risks.

A sensitivity analysis on the principal assumptions used to measure the plan liabilities at 31 December 2022 was as follows:

	Change in assumption	Decrease/(increase) to plan liabilities	Increase/(decrease) to profit before tax
		£m	£m
Discount rate	Increase by 0.5 ppts	72	(2)
	Decrease by 0.5 ppts	(79)	1
Inflation assumption[(1)]	Increase by 0.5 ppts	(49)	n/a
	Decrease by 0.5 ppts	47	n/a
Assumed life expectancy at age 65 (rate of mortality)	Increase by 1 year	(47)	n/a
	Decrease by 1 year	46	n/a

(1) The inflation sensitivity encompasses the impact on pension increases, where applicable.

The sensitivity analysis above was determined based on reasonably possible changes to the respective assumptions, while holding all other assumptions constant. There has been no change in the methods or assumptions used in preparing the sensitivity analysis from prior years. Sensitivities are based on the relevant assumptions and membership profile as at 31 December 2022 and are applied to obligations at the end of the reporting period. Whilst the analysis does not take account of the full distribution of cash flows expected, it does provide an approximation to the sensitivity of assumptions shown. Extrapolation of these results beyond the sensitivity figures shown may not be appropriate and the sensitivity analysis presented may not be representative of the actual change in the defined benefit obligation as it is unlikely that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.

21. Financial instruments and risk management

The table below sets out the Group's accounting classification of each category of financial assets and liabilities and their carrying values at 31 December 2022, 31 December 2021 and 31 December 2020:

	Automotive	Powder Metallurgy	Hydrogen	Corporate	Total
	£m	£m	£m	£m	£m
31 December 2022					
Financial assets					
Classified as amortised cost:					
Cash and cash equivalents	**—**	**—**	**—**	**270**	**270**
Net trade receivables	**365**	**145**	**1**	**—**	**511**
Loans receivable from Related Parties	**—**	**—**	**—**	**2,826**	**2,826**

	Automotive	Powder Metallurgy	Hydrogen	Corporate	Total
	£m	£m	£m	£m	£m
Classified as fair value:					
Derivative financial assets					
—Foreign currency forward contracts	**1**	**—**	**—**	**32**	**33**
Financial liabilities					
Classified as amortised cost:					
Loans payable to Related Parties	**—**	**—**	**—**	**(2,176)**	**(2,176)**
Lease obligations	**(100)**	**(59)**	**—**	**—**	**(159)**
Other financial liabilities	**(981)**	**(181)**	**(5)**	**(2)**	**(1,169)**
Classified as fair value:					
Derivative financial liabilities					
—Foreign currency forward contracts	**(1)**	**—**	**—**	**(11)**	**(12)**
31 December 2021					
Financial assets					
Classified as amortised cost:					
Cash and cash equivalents	—	—	—	275	275
Net trade receivables	274	123	1	—	398
Loans receivable from Related Parties	—	—	—	3,378	3,378
Classified as fair value:					
Derivative financial assets					
—Foreign currency forward contracts	—	—	—	8	8
Financial liabilities					
Classified as amortised cost:					
Loans payable to Related Parties	—	—	—	(2,547)	(2,547)
Lease obligations	(105)	(58)	—	—	(163)
Other financial liabilities	(798)	(179)	—	(4)	(981)
Classified as fair value:					
Derivative financial liabilities					
—Foreign currency forward contracts	(2)	(1)	—	(9)	(12)
—Cross-currency swaps	—	—	—	(68)	(68)
31 December 2020					
Financial assets					
Classified as amortised cost:					
Cash and cash equivalents	—	—	—	141	141
Net trade receivables	372	143	—	1	516
Loans receivable from Related Parties	—	—	—	3,295	3,295
Classified as fair value:					
Derivative financial assets					
—Foreign currency forward contracts	1	—	—	12	13
Financial liabilities					
Classified as amortised cost:					
Loans payable to Related Parties	—	—	—	(2,602)	(2,602)
Lease obligations	(113)	(59)	—	—	(172)
Other financial liabilities	(899)	(190)	—	(6)	(1,095)
Classified as fair value:					
Derivative financial liabilities					
—Foreign currency forward contracts	(4)		—	(6)	(10)
—Cross-currency swaps	—	—	—	(80)	(80)

Reconciliation of liabilities arising from financing activities

Liabilities arising from financing activities, as defined by IAS 7 totalled £2,778 million at 31 December 2021 comprising; loans payable to Related Parties of £2,547 million, cross currency swaps of £68 million and lease obligations of £163 million. During the year a net cash outflow in those liabilities totalled £446 million as follows: Net repayments on loans payable to Related Parties of £78 million and the repayment of principal on lease obligations of £22 million (Note 24). There is also a decrease to liabilities arising from financing activities relating to non-cash items totalling £343 million comprising; a reduction in loans payable to Related Parties and cross-currency swaps of £361 million due to changes in foreign exchange rates and other non-cash movements offset by an increase in respect of lease obligations of £18 million. As at 31 December 2022, liabilities arising from financing activities, as defined by IAS 7, totalled £2,335 million comprising; loans payable to Related Parties of £2,176 million, cross currency swaps of £nil and lease obligations of £159 million.

Liabilities arising from financing activities, as defined by IAS 7, totalled £2,854 million at 31 December 2020 comprising; loans payable to Related Parties of £2,602 million, cross currency swaps of £80 million and lease obligations of £172 million. During the year a net cash inflow in those liabilities totalled £26 million as follows: Net drawings on loans payable to Related Parties of £48 million offset by the repayment of principal on lease obligations of £22 million (Note 24). There is also a decrease to liabilities arising from financing activities relating to non-cash items totalling £102 million comprising a reduction in loans payable to Related Parties and cross-currency swaps of £115 million due to changes in foreign exchange rates and other non-cash movements and an increase in respect of lease obligations of £13 million. As at 31 December 2021, liabilities arising from financing activities, as defined by IAS 7, totalled £2,778 million comprising; loans payable to Related Parties of £2,547 million, cross currency swaps of £68 million and lease obligations of £163 million.

Liabilities arising from financing activities, as defined by IAS 7, totalled £1,965 million at 31 December 2019 comprising; loans payable to Related Parties of £1,715 million, cross currency swaps of £74 million and lease obligations of £176 million. During the year a net cash outflow in those liabilities totalled £364 million as follows: Net repayment of loans payable to Related Parties of £339 million and the repayment of principal on lease obligations of £25 million (Note 24). There is also an increase in liabilities arising from financing activities relating to non-cash items totalling £1,253 million comprising; an increase in loans payable to Related Parties and cross-currency swaps of £1,232 million due to changes in foreign exchange rates and other non-cash movements and an increase in respect of lease obligations of £21 million. As at 31 December 2020, liabilities arising from financing activities, as defined by IAS 7, totalled £2,854 million comprising; loans payable to Related Parties of £2,602 million, cross currency swaps of £80 million and lease obligations of £172 million.

Fair values

Management consider that the financial assets and liabilities have fair values not materially different to the carrying values.

Credit risk

The Group's principal financial assets were cash and cash equivalents, trade receivables, loans receivable from Related Parties and derivative financial assets which represented the Group's maximum exposure to credit risk in relation to financial assets.

The Group's credit risk on cash and cash equivalents and derivative financial assets was limited because the ultimate counterparties were banks with strong credit ratings assigned by international credit rating agencies. Exposure is managed on the basis of risk rating and counterparty limits. The value of credit risk in derivative assets has been modelled using publicly available inputs as part of their fair value.

The Group's credit risk was therefore primarily attributable to its trade receivables. The amounts presented in the Carve-out Balance Sheet were net of allowance for expected credit loss, estimated by the Group's management based on prior experience and their assessment of the current economic environment. Note 14 provides further details regarding the recovery of trade receivables.

Capital risk

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern.

The capital structure of the Group as at 31 December 2022 consists of net funds, as disclosed in Note 23, and equity attributable to the owners of the Ultimate Parent, comprising Net Investment by the Ultimate Parent and reserves as disclosed in the Carve-out Statement of Changes in Total Invested Capital.

Liquidity risk management

Overview of banking facilities

The Group is financed through borrowing from counterparties controlled by the Ultimate Parent but not part of the Group. Funding is typically in the form of intercompany revolving credit facilities to provide sufficient liquidity to allow the businesses to operate on a day to day basis.

Management takes careful consideration of counterparty risk with banks when deciding where to place cash on deposit.

Working capital

The Group has a small number of uncommitted working capital programmes, which provide favourable financing terms on eligible customer receipts and competitive financing terms to suppliers on eligible supplier payments.

Businesses which participate in these customer related finance programmes have the ability to choose whether to receive payment earlier than the normal due date, for specific customers on a non-recourse basis. As at 31 December 2022, the drawings on these facilities were £187 million (31 December 2021: £196 million, 31 December 2020: £208 million), as a result there was a net cash reduction in the year of £9 million (2021: £12 million, 2020: benefit of £105 million).

In addition, some suppliers have access to utilise the Group's supplier finance programmes, which are provided by a small number of the Group's banks. There is no cost to the Group for providing these programmes to its suppliers. These arrangements do not change the date suppliers are due to be paid by the Group, and therefore there is no additional impact on the Group's liquidity. If the Group exited these arrangements there could be a potential impact of up to £57 million (31 December 2021: £33 million, 31 December 2020: £7 million) on the Group's cash flow. These programmes allow suppliers to choose whether they want to accelerate the payment of their invoices, by the financing banks, for an interest cost which is competitive, based on the credit rating of the Group as determined by the financing banks. The amounts owed to the banks are presented in trade payables on the Carve-out Balance Sheet and the cash flows are presented in cash flows from operating activities. As at 31 December 2022, there were drawings on these facilities of £125 million (31 December 2021: £52 million, 31 December 2020: £14 million). The arrangements do not change the timing of the Group's cash outflows.

Interest rate sensitivity analysis

Assuming all loans and cash held as at the balance sheet date was outstanding for the whole year, a one percentage point rise in market interest rates for all currencies would increase/(decrease) profit before tax by the following amounts:

	Year ended 31 December 2022	**Year ended 31 December 2021**	**Year ended 31 December 2020**
	£m	**£m**	**£m**
Sterling	**3**	1	(2)
US Dollar	**(13)**	(7)	(7)
Euro	**16**	15	15

Exchange rate risk management

The Group trades in various countries around the world and is exposed to movements in a number of foreign currencies. The Group therefore carries exchange rate risk that can be categorised into three types, transaction, translation and disposal related risk as described in the paragraphs below. The Group's policy is designed to protect against the majority of the cash risks but not the non-cash risks.

The most common exchange rate risk is the transaction risk the Group takes when it invoices a customer or purchases from suppliers in a different currency to the underlying functional currency of the relevant business. The Group's policy is to review transactional foreign exchange exposures, and place necessary hedging contracts, quarterly on a rolling basis. To the extent the cash flows associated with a transactional foreign exchange risk are committed, the Group will hedge 100% at the time the cash flow becomes committed. For forecast and variable cash flows, the Group hedges a proportion of the expected cash flows, with the percentage being hedged lowering as the time horizon lengthens. The average time horizons for GKN Automotive and GKN Powder Metallurgy reflect the long-term nature of the contracts within these divisions. Typically, in total the Group hedges around 90% of foreign exchange exposures expected over the next year, and approximately 60% of exposures between one and two years. This policy does not eliminate the cash risk but does bring some certainty to it.

The translation rate risk is the effect on the Group results in the period due to the movement of exchange rates used to translate foreign results into Sterling from one period to the next. No specific exchange instruments are used to protect against the translation risk because it is a non-cash risk to the Group, until foreign currency is converted to Sterling.

Lastly, exchange rate risk arises when a business that is predominantly based in a foreign currency is sold. The proceeds for those businesses may be received in a foreign currency and therefore an exchange rate risk may arise on conversion of foreign currency proceeds into Sterling, for instance to pay a Sterling dividend. Protection against this risk is considered on a case-by-case basis and, if appropriate, hedged at the time.

As at 31 December 2022, the Group held foreign exchange forward contracts to mitigate expected exchange rate fluctuations on future cash flows from sales to customers and purchases from suppliers. The fair value of all foreign exchange forward contracts across the Group was a net asset at 31 December 2022 of £21 million (31 December 2021: liability of £4 million, 31 December 2020: asset of £3 million).

The following table shows the maturity profile of undiscounted contracted gross cash outflows of derivative financial liabilities used to manage currency risk:

	0–1 year	1–2 years	Total
	£m	£m	£m
Year ended 31 December 2022			
Foreign exchange forward contracts	**208**	**46**	**254**
Year ended 31 December 2021			
Foreign exchange forward contracts	353	126	479
Year ended 31 December 2020			
Foreign exchange forward contracts	140	43	183

Foreign currency sensitivity analysis

Currency risks are defined by IFRS 7: Financial instruments: Disclosures as the risk that the fair value or future cash flows of a financial asset or liability will fluctuate because of changes in foreign exchange rates.

The following table details the transactional impact of hypothetical changes in foreign exchange rates on financial assets and liabilities at the balance sheet date, illustrating the increase/(decrease) in Group operating profit caused by a 10% strengthening of the US Dollar and Euro against Sterling compared to the year-end spot rate. The analysis assumes that all other variables, in particular other foreign currency exchange rates, remain constant. The Group operates in a range of different currencies, and those with a notable impact are shown below:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
US Dollar	**1**	—	—
Euro	—	2	4

The following table details the impact of hypothetical changes in foreign exchange rates on financial assets and liabilities at the balance sheet date, illustrating the increase/(decrease) in the Group's Total Invested Capital caused by a 10% strengthening of the US Dollar and Euro against Sterling. The analysis assumes that all other variables, in particular other foreign currency exchange rates, remain constant.

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
US Dollar	**(3)**	(9)	(4)
Euro	**(5)**	(7)	(2)

Fair value measurements recognised in the Carve-out Balance Sheet

Foreign currency forward contracts are measured using quoted forward exchange rates and yield curves derived from quoted interest rates matching the maturities of the contracts.

Cross-currency swap contracts are measured using yield curves derived from quoted interest and foreign exchange rates.

Derivative and financial assets and liabilities are presented within the Carve-out Balance Sheet as:

	31 December 2022	31 December 2021	31 December 2020
	£m	**£m**	**£m**
Non-current assets	**9**	1	3
Current assets	**24**	7	10
Current liabilities	**(10)**	(77)	(8)
Non-current liabilities	**(2)**	(3)	(82)

22. Translation Reserve

The translation reserve contains exchange differences on the translation of subsidiaries with a functional currency other than pound sterling.

23. Cash flow statement

	Notes	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
		£m	**£m**	**£m**
Reconciliation of operating loss to net cash from operating activities				
Operating profit/(loss)		**58**	(121)	(256)
Adjusting items	6	**275**	363	360
Adjusted operating profit	6	**333**	242	104
Adjustments for:				
Depreciation of property, plant and equipment		**251**	265	276
Amortisation of computer software and development costs		**10**	8	11
Share of adjusted operating profit of equity accounted investments	12	**(78)**	(66)	(62)
Restructuring costs paid and movements in provisions		**(147)**	(141)	(55)
Defined benefit pension contributions paid		**(40)**	(40)	(52)
Change in inventories		**(33)**	(27)	41
Change in receivables		**(102)**	69	33
Change in payables		**103**	(36)	83
Tax (paid)/received		**(72)**	(37)	22
Interest paid on loans and borrowings		**(6)**	(7)	(4)
Interest paid on lease obligations		**(6)**	(7)	(7)
Acquisition and disposal costs		**(3)**	—	—
Net cash from operating activities		**210**	223	390

Reconciliation of cash and cash equivalents, net of bank overdrafts	31 December 2022	31 December 2021	31 December 2020
	£m	**£m**	**£m**
Cash and cash equivalents per Carve-out Balance Sheet	**270**	275	141
Bank overdrafts included within current loans payable to Related Parties	**(7)**	—	—
Cash and cash equivalents, net of bank overdrafts per Carve-out Statement of Cash Flows	**263**	275	141

Net funds reconciliation

Net funds consist of loans with Related Parties, cross-currency swaps and cash and cash equivalents.

Net funds is considered to be an alternative performance measure as it is not defined in IFRS. The most directly comparable IFRS measure is the aggregate of loans with Related Parties (current and non-current) and cash and cash equivalents. A reconciliation from the most directly comparable IFRS measure to net funds, is given below:

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Loans receivable from Related Parties—due after one year	**2,826**	3,378	3,295
Loans payable to Related Parties—due within one year	**(2,176)**	(2,547)	(2,602)
External net funds	**650**	831	693
Add:			
Cash and cash equivalents	**270**	275	141
	920	1,106	834
Adjustments:			
Impact of cross-currency swaps	**—**	(68)	(80)
Net funds	**920**	1,038	754

24. Commitments

Amounts payable under lease obligations:

Minimum lease payments	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Amounts payable:			
Within one year	**32**	30	30
After one year but within five years	**65**	63	61
Over five years	**113**	105	120
Less: future finance charges	**(51)**	(35)	(39)
Present value of lease obligations	**159**	163	172
Analysed as:			
Amounts due for settlement within one year	**25**	23	23
Amount due for settlement after one year	**134**	140	149
Present value of lease obligations	**159**	163	172

It is the Group's policy to lease certain of its property, plant and equipment. The average lease term is 10 years. Interest rates are fixed at the contract date. All leases are on a fixed repayment basis and no arrangements have been entered into for contingent rental payments.

The Group's obligations under lease arrangements are secured by the lessors' rights over the leased assets.

Certain leases within the Group contain extension or termination options to allow for flexibility within these lease agreements. Where these options are not reasonably certain to be exercised, they are not included in the lease obligation. The value of these associated undiscounted cash flows is £5 million.

The table below shows the key components in the movement in lease obligations.

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
At 1 January	**163**	172	176
Additions	**14**	23	12
Acquisition of businesses(1)	**—**	—	9
Interest charge	**6**	7	7
Reassessment of lease obligation	**—**	—	(1)
Payment of principal	**(22)**	(22)	(25)
Payment of interest	**(6)**	(7)	(7)
Disposals	**(4)**	(1)	(1)
Exchange adjustments	**8**	(9)	2
At 31 December	**159**	**163**	**172**

(1) Acquisition of businesses in 2020 related to the purchase of Forecast 3D in the Powder Metallurgy division (Note 10).

Capital commitments

At 31 December 2022, there were commitments of £50 million (31 December 2021: £41 million, 31 December 2020: £22 million) relating to the acquisition of new plant and machinery.

25. Related parties

Remuneration of key management personnel

The remuneration of the Executive Directors of the Group, who are considered the key management personnel, is set out below in aggregate for each of the categories specified in IAS 24: "Related party disclosures":

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	£m	£m
Short-term employee benefits	**3**	3	2
	3	3	2

Mr. S Peckham and Mr. G Martin are Executive Directors of Dowlais Group plc, as well as Melrose Industries PLC, but did not work for GKN Automotive, GKN Powder Metallurgy or GKN Hydrogen during the Historical Financial Information period. Their remuneration was borne by a non-Group entity controlled by the Ultimate Parent and there was no allocation made to the Group as there is no practicable basis for allocation.

Transactions between companies within the Group, which are Related Parties, have been eliminated on aggregation and are not disclosed in this Note. Sales to and purchases from Group companies are priced on an arm's length basis and generally are settled on 30 day terms.

Transactions and balances between the Group and the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent, are classified as related party transactions. Transactions primarily relate to royalties paid, dividends paid and received and interest payable and receivable on loans with Related Parties.

Amounts recognised in the Carve-out Balance Sheet in respect of these related party transactions were as follows:

	31 December 2022	31 December 2021	31 December 2020
	£m	£m	£m
Amounts owed by the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent	**2,829**	3,380	3,295
Amounts owed to the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent	**(2,189)**	(2,561)	(2,613)

Amounts recognised in the Carve-out Income Statement in respect of these related party transactions were as follows:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	**£m**	**£m**
Interest receivable from the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent	**—**	—	7
Interest payable to the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent	**(22)**	(26)	(36)
Dividends receivable from the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent	**—**	5	15
Charges payable to the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent	**(9)**	(12)	(11)

Amounts recognised in the Carve-out Statement of Changes in Total Invested Capital in respect of these related party transactions were as follows:

	Year ended 31 December 2022	Year ended 31 December 2021	Year ended 31 December 2020
	£m	**£m**	**£m**
Charges (received from)/ paid to non-Group entities[(1)]	**(1)**	(2)	5
Disposal of non-Group entities	**—**	(4)	(28)
Reorganisation in respect of non-Group entities	**(105)**	410	(130)
Tax effect of transactions with the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent	**(4)**	(37)	12
Total transactions with, or on behalf of, the Ultimate Parent or other non-Group entities controlled by the Ultimate Parent	**(110)**	367	(141)

(1) Includes an expense of £2 million in the year ended 31 December 2022 (2021: £2 million, 2020: £2 million) as an allocation of corporate costs considered to be attributable to Dowlais Group plc.

	31 December 2022	31 December 2021	31 December 2020
	£m	**£m**	**£m**
Dividends payable to the Ultimate Parent, or other non-Group entities controlled by the Ultimate Parent	**—**	(34)	—

Charges are incurred by Group companies in relation to other entities controlled by the Ultimate Parent but outside of the Group. All foreign exchange contracts, shown in Note 21, are with another non-Group entity controlled by the Ultimate Parent.

26. Contingent liabilities

As a result of acquisitions, certain contingent legal and warranty liabilities have been identified as part of the fair value review of these acquisition balance sheets. Whilst it is difficult to reasonably estimate the timing and ultimate outcome of these claims, the Executive Directors' best estimate has been included in the Carve-out Balance Sheet where they existed at the time of acquisition and hence were recognised in accordance with IFRS 3: Business combinations. Where a provision has been recognised, information regarding the different categories of such liabilities and the amount and timing of outflows is included within Note 18.

Given the nature of the Group's business many of the Group's products have a large installed base, and any recalls or reworks related to such products could be particularly costly. The costs of product recalls or reworks are not always covered by insurance. Recalls or reworks may have a material adverse effect on the Group's financial condition, results of operations and cash flows.

The Group has contingent liabilities representing guarantees and contract bonds given in the ordinary course of business on behalf of trading subsidiaries. No losses are anticipated to arise on these contingent liabilities. The Group does not have any other significant contingent liabilities.

27. Post balance sheet events

Dowlais Group plc ("the Company") was incorporated as a company in England and Wales on 13 January 2023. On incorporation, the Company's share capital consisted of one ordinary share with a nominal value of £1 which was issued, fully paid, to Shield Trust Limited (the "Incorporation Share"). On 18 January 2023, the Incorporation Share was transferred to the Ultimate Parent, Melrose Industries PLC ("Melrose"). On 19 January 2023, the Ultimate Parent subscribed for an additional 49,999 ordinary shares of £1 each in the Company which were subsequently issued and fully paid.

Prior to the proposed demerger, the Ultimate Parent has completed a reorganisation of its corporate structure to bring all of the companies that comprise the Group under the ownership of the Company (the "Reorganisation"). Following completion of the Reorganisation, the Company owns 100% of the entire issued share capital of G.K.N. Industries Limited ("GKN Industries") and GKN Powder Metallurgy Holdings Limited ("GKN PM"). A summary of the key Reorganisation steps that relate to the establishment of the Dowlais Group and the share capital of the Company is set out below:

- On 28 February 2023, the Company subdivided the 50,000 ordinary shares of £1 each then in issue into 5,000,000 ordinary shares of one pence each pursuant to a resolution of the member of the Company (the "Sub-divided Shares");
- On 28 February 2023, GKN Enterprise Limited ("GKN Enterprise") transferred its beneficial interest in 100% of the issued share capital in GKN PM (the "PM Shares") to Melrose pursuant to a declaration of trust for consideration equal to the book value of GKN PM as at 31 December 2022, which was left outstanding on intercompany balance. The transfer of the bare legal title to the PM Shares from GKN Enterprise to Melrose occurred on 28 February 2023;
- On 28 February 2023, GKN Enterprise transferred its beneficial interest in 100% of the issued share capital in GKN Industries (the "Auto Shares") to Melrose pursuant to a declaration of trust for consideration equal to the book value of GKN Industries as at 31 December 2022, which was left outstanding on intercompany balance. The transfer of the bare legal title to the Auto Shares from GKN Enterprise to Melrose occurred on 28 February 2023; and
- On 28 February 2023, Melrose contributed 100% of the issued share capital in GKN Industries and GKN PM to the Company by way of a share-for-share exchange. The Company issued 1,388,273,527 ordinary shares of one pence each, which, together with the Sub-divided Shares, comprises the total number of Dowlais Shares expected to be in issue at the Demerger Record Time.