Consolidated income statement
For the year ended 31 December 2021

	Notes	Business performance[1] US$m	Separately disclosed items US$m	Reported 2021 US$m	Business performance[1] (restated)[2] US$m	Separately disclosed items (restated)[2] US$m	Reported 2020 (restated)[2] US$m
Revenue	3	**3,057**	**–**	**3,057**	4,081	–	4,081
Cost of sales	5a	**(2,879)**	**–**	**(2,879)**	(3,802)	–	(3,802)
Gross profit		**178**	**–**	**178**	279	–	279
Selling, general and administration expenses	5b,6	**(175)**	**(159)**	**(334)**	(165)	(243)	(408)
Expected credit loss reversal/(allowance)	5e	**25**	**–**	**25**	(9)	–	(9)
Other operating income	5f	**8**	**–**	**8**	21	–	21
Other operating expenses	5g	**(7)**	**–**	**(7)**	(43)	–	(43)
Operating profit/(loss)		**29**	**(159)**	**(130)**	83	(243)	(160)
Finance income	7	**6**	**–**	**6**	9	–	9
Finance expense	6,7	**(44)**	**(28)**	**(72)**	(37)	–	(37)
Share of net profit of associates and joint ventures	16	**7**	**–**	**7**	5	–	5
(Loss)/profit before tax		**(2)**	**(187)**	**(189)**	60	(243)	(183)
Income tax credit/(expense)	8a	**40**	**(43)**	**(3)**	(19)	1	(18)
Net profit/(loss)		**38**	**(230)**	**(192)**	41	(242)	(201)
Attributable to:							
Petrofac Limited shareholders		**35**	**(230)**	**(195)**	50	(242)	(192)
Non-controlling interests	13	**3**	**–**	**3**	(9)	–	(9)
		38	**(230)**	**(192)**	41	(242)	(201)
Earnings/(loss) per share (US cents)							
Basic	9	**9.7**	**(63.5)**	**(53.8)**	14.8	(71.8)	(57.0)
Diluted	9	**9.7**	**(63.5)**	**(53.8)**	14.8	(71.8)	(57.0)

(1) This measurement is shown by the Group as a means of measuring underlying business performance; see note 2 and Appendix A.
(2) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

Consolidated statement of comprehensive income

For the year ended 31 December 2021

	Notes	**2021 US$m**	2020 (restated)[1] US$m
Reported net loss		**(192)**	(201)
Other comprehensive income/(loss) to be reclassified to consolidated income statement in subsequent periods			
Net changes in fair value of derivatives and financial assets designated as cash flow hedges	25	**1**	(15)
Foreign currency translation gains/(losses)	25	**3**	(18)
Other comprehensive income/(loss) to be reclassified to consolidated income statement in subsequent periods		**4**	(33)
Other comprehensive income reclassified to consolidated income statement			
Foreign currency translation losses reclassified to the consolidated income statement	25	**8**	3
Other comprehensive income reclassified to consolidated income statement		**8**	3
Total comprehensive (loss) for the year		**(180)**	(231)
Attributable to:			
Petrofac Limited shareholders		**(183)**	(222)
Non-controlling interests	13	**3**	(9)
		(180)	(231)

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

Consolidated balance sheet
At 31 December 2021

	Notes	2021 US$m	2020 (restated)[1] US$m	1 Jan 2020 (restated)[1] US$m
Assets				
Non-current assets				
Property, plant and equipment	12	**283**	288	398
Goodwill	14	**101**	101	99
Intangible assets	15	**43**	51	50
Investments in associates and joint ventures	16	**34**	35	38
Other financial assets	17	**209**	202	316
Deferred consideration	11	**55**	55	61
Deferred tax assets	8c	**18**	61	50
		743	793	1,012
Current assets				
Inventories	18	**23**	8	17
Trade and other receivables	19	**668**	877	1,103
Contract assets	20	**1,580**	1,652	2,064
Other financial assets	17	**183**	148	135
Income tax receivable		**20**	9	4
Cash and short-term deposits	21	**620**	684	1,025
		3,094	3,378	4,348
Assets held for sale		**–**	–	600
Total assets		**3,837**	4,171	5,960
Equity and liabilities				
Equity				
Share capital	22	**10**	7	7
Share premium	22	**251**	4	4
Capital redemption reserve	22	**11**	11	11
Employee Benefit Trust shares	23	**(69)**	(88)	(110)
Other reserves	25	**42**	43	84
Retained earnings		**230**	426	621
Equity attributable to Petrofac Limited shareholders		**475**	403	617
Non-controlling interests	13	**10**	7	281
Total equity		**485**	410	898
Non-current liabilities				
Interest-bearing loans and borrowings	26	**764**	50	599
Provisions	27	**143**	171	189
Other financial liabilities	17	**195**	166	315
Deferred tax liabilities	8c	**29**	38	37
		1,131	425	1,140
Current liabilities				
Trade and other payables	28	**1,090**	887	1,075
Contract liabilities	20	**58**	120	273
Interest-bearing loans and borrowings	26	**–**	750	411
Other financial liabilities	17	**81**	179	166
Income tax payable		**142**	191	231
Accrued contract expenses	32	**780**	1,134	1,599
Provisions	27	**70**	75	47
		2,221	3,336	3,802
Liabilities associated with assets held for sale		**–**	–	120
Total liabilities		**3,352**	3,761	5,062
Total equity and liabilities		**3,837**	4,171	5,960

The consolidated financial statements on pages 141 to 202 were approved by the Board of Directors on 23 March 2022 and signed on its behalf by Afonso Reis e Sousa – Chief Financial Officer.

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

Consolidated statement of cash flows
For the year ended 31 December 2021

	Notes	2021 US$m	2020 (restated)[1] US$m
Operating activities			
Loss before tax		**(189)**	(183)
Separately disclosed items	6	**187**	243
Profit before tax and separately disclosed items		**(2)**	60
Adjustments to reconcile profit before tax and separately disclosed items to net cash flows:			
Depreciation, amortisation, business performance impairment and write-off	5a, 5b, 5g	**68**	123
Expected credit loss (reversal)/allowance recognised	5e	**(25)**	9
Share-based payments	24	**7**	15
Difference between other long-term employment benefits paid and amounts recognised in the consolidated income statement	27	**(29)**	(18)
Net finance expense	7	**38**	28
Net movement in other provisions	27	**(13)**	24
Share of net profit of associates and joint ventures	16	**(7)**	(5)
Net other non-cash items		**(3)**	1
		34	237
Working capital adjustments:			
Inventories		**(15)**	4
Trade and other receivables		**211**	122
Contract assets	20	**78**	409
Related party receivables	31	**–**	1
Other net current financial assets	17	**(106)**	(25)
Assets and liabilities held for sale		**–**	7
Trade and other payables		**120**	(156)
Contract liabilities	20	**(59)**	(153)
Accrued contract expenses		**(354)**	(369)
Net working capital adjustments		**(125)**	(160)
Cash generated from operations		**(91)**	77
Separately disclosed items paid – operating costs		**(28)**	(33)
Net income taxes paid		**(42)**	(74)
Net cash flows used in operating activities		**(161)**	(30)
Investing activities			
Purchase of property, plant and equipment		**(43)**	(33)
Payments for intangible assets	15	**(10)**	(10)
Contingent consideration paid	17	**–**	(3)
Dividends received from associates and joint ventures	16	**8**	9
Loans paid to associates and joint ventures	16	**–**	(2)
Disposal costs paid		**–**	(3)
Net proceeds from disposal of subsidiaries, including receipt against contingent consideration		**9**	31
Proceeds from disposal of property, plant and equipment		**5**	1
Interest received		**1**	3
Net cash flows used in investing activities		**(30)**	(7)
Financing activities			
Issue of shares net of associated transaction costs	22	**250**	–
Proceeds from interest-bearing loans and borrowings, net of debt acquisition cost	17	**1,484**	870
Repayment of interest-bearing loans and borrowings	17	**(1,470)**	(1,015)
Repayment of lease liabilities	29	**(40)**	(50)
Separately disclosed items paid – refinancing related costs paid		**(23)**	–
Interest paid		**(27)**	(36)
Purchase of Company's shares by Employee Benefit Trust	23	**(2)**	(11)
Net cash flows generated from/(used in) financing activities		**172**	(242)
Net decrease in cash and cash equivalents		**(19)**	(279)
Net foreign exchange difference		**–**	4
Cash and cash equivalents at 1 January		**639**	914
Cash and cash equivalents at 31 December	21	**620**	639

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

Consolidated statement of changes in equity
For the year ended 31 December 2021

	Attributable to Petrofac Limited shareholders								
	Issued share capital US$m	Share premium US$m	Capital redemption reserve US$m	Employee Benefit Trust shares[1] US$m (note 23)	Other reserves US$m (note 25)	Retained earnings US$m	Total US$m	Non-controlling interests US$m	Total equity US$m
At 1 January 2020 (as reported)	7	4	11	(110)	84	637	633	281	914
Impact of change in accounting policy in respect of cloud configuration and customisation costs (note 2.9)	–	–	–	–	–	(16)	(16)	–	(16)
At 1 January 2020 (restated)[2]	7	4	11	(110)	84	621	617	281	898
Restated net loss[2]	–	–	–	–	–	(192)	(192)	(9)	(201)
Other comprehensive loss	–	–	–	–	(30)	–	(30)	–	(30)
Total comprehensive loss	–	–	–	–	(30)	(192)	(222)	(9)	(231)
Purchase of Company's shares by Employee Benefit Trust (note 23)	–	–	–	(11)	–	–	(11)	–	(11)
Issue of Company's shares by Employee Benefit Trust (note 23)	–	–	–	33	(30)	(3)	–	–	–
Transfer to share-based payments reserve for Deferred Bonus Share Plan Invested Shares (note 24)	–	–	–	–	4	–	4	–	4
Credit to equity for share-based payments charge (note 24)	–	–	–	–	15	–	15	–	15
Disposal (note 17)	–	–	–	–	–	–	–	(265)	(265)
At 31 December 2020 (restated)[2]	7	4	11	(88)	43	426	403	7	410
At 1 January 2021	7	4	11	(88)	43	426	403	7	410
Reported net (loss)/profit	–	–	–	–	–	(195)	(195)	3	(192)
Other comprehensive income	–	–	–	–	12	–	12	–	12
Total comprehensive income/(loss)	–	–	–	–	12	(195)	(183)	3	(180)
Issue of own shares (note 22)	3	247	–	–	–	–	250	–	250
Purchase of Company's shares by Employee Benefit Trust (note 23)	–	–	–	(2)	–	–	(2)	–	(2)
Issue of Company's shares by Employee Benefit Trust (note 23)	–	–	–	21	(20)	(1)	–	–	–
Credit to equity for share-based payments charge (note 24)	–	–	–	–	7	–	7	–	7
At 31 December 2021	**10**	**251**	**11**	**(69)**	**42**	**230**	**475**	**10**	**485**

(1) Shares held by Petrofac Employee Benefit Trust.
(2) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

1 Corporate information

Petrofac Limited (the 'Company') is a limited liability company registered and domiciled in Jersey under the Companies (Jersey) Law 1991 and is the holding company for the international group of Petrofac subsidiaries. Petrofac Limited and its subsidiaries at 31 December 2021 comprised the Petrofac Group (the 'Group'). Information on the Group's subsidiaries, associates and joint arrangements is contained in note 34 to these consolidated financial statements. Information on the Group's related party transactions is provided in note 31. The Group's principal activity is to design, build, manage and maintain infrastructure for the energy industries.

The Company's and the Group's financial statements (the 'consolidated financial statements') for the year ended 31 December 2021 were authorised for issue in accordance with a resolution of the Board of Directors on 23 March 2022. The Company's financial statements for the year ended 31 December 2021 are shown on pages 210 to 226.

2 Summary of significant accounting policies

2.1 Basis of preparation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and applicable requirements of Jersey law. The Group has revised its accounting policy in relation to configuration costs incurred in implementing Software-as-a-Service (SaaS) arrangements in response to the IFRS Interpretations Committee decision (Configuration or Customisation Costs in a Cloud Computing Arrangement (IAS 38 Intangible Assets)). The Group assessed the impact of this change in accounting policy on such arrangements entered by the Group during prior years and restated comparative figures accordingly (note 2.9).

The consolidated financial statements have been prepared on a historical cost basis, except for derivative financial instruments, financial assets measured at fair value through profit and loss, and deferred consideration receivable that has been measured at fair value. The consolidated financial statements are presented in United States dollars and all values are rounded to the nearest million (US$m), unless otherwise stated.

2.2 Presentation of results

The Group uses Alternative Performance Measures (APMs) when assessing and discussing the Group's financial performance, financial position and cash flows that are not defined or specified under IFRS. The Group uses these APMs, which are not considered to be a substitute for or superior to IFRS measures, to provide stakeholders with useful information on underlying trends and additional useful information by adjusting for separately disclosed items which impact upon IFRS measures or, by defining new measures, to aid the understanding of the Group's financial performance, financial position and cash flows (refer to notes 2.8 and 6 and Appendix A for more details).

2.3 Adoption of new financial reporting standards, amendments and interpretations

Effective new financial reporting standards

The Group applied for the first time certain standards and amendments, which are effective for annual periods beginning on or after 1 January 2021. The Group has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

The following amendments apply for the first time in 2021, but do not have an impact on the consolidated financial statements of the Group:

- Amendment to IFRS 16 – COVID-19-Related Rent Concessions (effective 1 June 2020)
- Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 Interest Rate Benchmark Reform – Phase 2 (effective 1 January 2021)

Application of IFRIC agenda decisions

In April 2021, the IFRS Interpretations Committee (IFRIC) published an agenda decision on the accounting treatment in relation to the configuration and customisation costs incurred in implementing SaaS arrangements as follows:

- Amounts paid to the cloud vendor for configuration and customisation that are not distinct from access to the cloud software are expensed over the contract term
- In limited circumstances, other configuration and customisation costs incurred in implementing SaaS arrangements may give rise to an identifiable intangible asset, for example, where additional code is created, from which the customer has the power to obtain the future economic benefits and to restrict others' access to those benefits
- In all other instances, configuration and customisation costs will be expensed as the customisation and configuration services are received

See note 2.9 for further details.

2.4 Financial reporting standards, amendments and interpretations issued but not yet effective

Certain new financial reporting standards, amendments and interpretations have been published that are not mandatory for the 31 December 2021 reporting period and have not been early adopted by the Group. The Group is currently assessing the impact of the amendments to IAS 12 'Income Taxes' on deferred tax related to assets and liabilities arising from a single transaction. With the exception of amendments to IAS 12, no significant impact is expected from the adoption of new financial reporting standards, amendments and interpretations.

2.5 Going concern

Introduction

The Directors performed a robust going concern assessment for the period to 31 March 2023, to validate the continued application of the going concern basis in the preparation of the financial statements of the Group. This included reviewing and challenging downside scenarios considered to be severe but plausible, based on the principal risks and uncertainties set out on pages 62 to 69.

The Directors evaluated the Group's funding position, liquidity and financial covenant profile to ensure it will have sufficient access to liquidity and covenant headroom to meet its obligations as they fall due from the date of signing the Group's consolidated financial statements on 23 March 2022 to 31 March 2023 (the "Assessment Period"). Furthermore, and in accordance with the Financial Reporting Council's guidance, the Directors considered events or conditions that may cast significant doubt on the Group's ability to continue as a going concern in the period beyond the Assessment Period and concluded that the disclosures contained herein sufficiently address relevant events and conditions in both the Assessment Period and the period beyond.

Approach

In evaluating whether the going concern assumption is appropriate, the Directors performed the following procedures:

- Reviewed the Group's forecast cash flows, liquidity, covenant compliance and borrowing requirements over the Assessment Period. Cash flow and liquidity projections were based on management's best estimates of future commodity prices, new order intake, project and contract schedules and costs, commercial settlements, oil and gas production and capital expenditure
- Evaluated a range of severe but plausible downside scenarios to reflect uncertainties inherent in forecasting future operational and financial performance, including changes in geo-political or macro-economic environments. These include, but are not limited to, lower order intake, cost overruns, adverse commercial settlements, deterioration in net working capital, adverse outcomes on contingent liabilities and delays to or reductions in disposal proceeds
- Appraised the mitigation actions available to management including, but not limited to, reducing costs through further headcount, salary and third-party cost reductions and conserving cash through working capital management and reductions in uncommitted capital expenditure. Under each scenario, mitigating actions are deemed to be in the control of management
- Performed a stress test analysis to establish the impact of a remote downside scenario, which extended the severe but plausible downside scenario analysis by modelling the impact of no new orders being secured in the Assessment Period

Impact of COVID-19

The risks to which forecast cash flows are most sensitive over the Assessment Period are (i) lower new order intake, (ii) contract cost overruns, (iii) adverse commercial settlements and (iv) working capital movements. With low backlog and high working capital balances, including an increase in uncollected assessed variation orders in the E&C operating segment during 2021, these four risks could have a significant impact on the performance of the Group and its ability to maintain covenant compliance over the Assessment Period. However, the Directors noted that the impact of COVID-19 related delays and cost increases was already reflected in the Group's financial performance in 2020 and 2021 and in the margin forecasts for 2022 and beyond. Given the maturity of the current project portfolio, and a return to pre-pandemic levels of activity, the Directors have concluded that the risk of further COVID-19 related disruption and cost increases in the Assessment Period is reduced, notwithstanding the risks inherent in EPC contracts.

Compliance with financial covenants

The Group complied with its financial covenants throughout 2021. However, the extended impact of COVID-19 and the Omicron variant in particular, which increased costs on existing projects and delayed new contract awards in the E&C segment, resulted in lower EBITDA in Q4 2021 and higher net debt than had been forecast at the time of the capital raise and debt refinancing in October 2021. In preparing the three-year business plan for 2022-2024, the Directors determined that an amendment to the existing financial covenants was required in order to maintain compliance during 2022 and 2023, both in the base case and in the mitigated severe but plausible downside case, due to the carryover effect of the trading result in Q4 2021 (covenants are calculated on a rolling 12-month basis).

Amendments to the leverage and interest cover covenants in the Revolving Credit Facility and the two term loan facilities were approved by the lenders of each facility on 4 March 2022. The Group is therefore projected to comply with its financial covenants in the mitigated severe but plausible downside scenario; however, in this scenario, the covenant headroom in the period to 30 September 2022 is limited.

If financial performance deteriorates significantly below this case, the Group may have difficulty complying with the financial covenants in their current form and further adjustments may be required. In their assessment of the Group's going concern position, the Directors have made a significant judgement that the Group will remain in compliance with its current financial covenants or, alternatively, if a covenant breach became likely, that the Group would be able to secure appropriate amendments or waivers to the covenants to ensure compliance. The factors that supported this judgement include:

- The Group's lenders have been supportive over a number of years including, with respect to financial covenant setting during the debt refinancing in October 2021 and the amendments to financial covenants in March 2022
- The Group has a positive outlook following the settlement of the SFO investigation, the reinstatement to ADNOC's bidding list, the capital raise and debt refinancing, the recovery in energy prices and the associated macro-economic outlook for the industries in which it operates
- The Group continues to forecast positive liquidity throughout the Assessment Period with improvement expected thereafter

Assessment

The Directors considered the following in their assessment:

- The Group retains sufficient liquidity to support operations, and settle debt as it becomes due, throughout the Assessment Period in the mitigated severe but plausible downside scenario
- The Group remains compliant with the amended financial covenants throughout the Assessment Period in the mitigated severe but plausible downside scenario

2 Summary of significant accounting policies continued

- The Group remains liquid in the remote downside scenario of securing no new orders in the Assessment Period, as demonstrated in the unmitigated stress test scenario, though in such a scenario it would breach its financial covenants
- The Group has a proven track record of taking timely actions to effectively mitigate downside risks, including cutting costs, conserving cash and divesting assets
- At 31 December 2021, the Group had cash and short-term deposits of US$620m and net debt of US$144m
- The Group's reinstatement to ADNOC's bidding list will provide a wider accessible market than assumed in the Group's business plan projections
- The recent developments in Russia are not expected to have a material impact on the business over the Assessment Period, with less than 1% of the backlog at 31 December 2021 derived from Russian projects and no new awards in Russia assumed in this period
- A sustained oil price above US$70 per barrel (the price used in the Group's business plan projections) will provide additional headroom on liquidity and financial covenant ratios (a sustained improvement of US$10 per barrel would equate to approximately US$8m EBITDA improvement). Additionally, sustained high energy prices and heightened energy security considerations are likely to increase investments in our core markets as well as in new energies

Conclusion
The Directors concluded, after rigorously evaluating relevant available information, that there are no events or conditions that cast significant doubt upon the Group's ability to continue as a going concern during the Assessment Period that require disclosure in the Group's consolidated financial statements for the year ended 31 December 2021. This conclusion required a significant judgement with respect to the risk of a covenant breach over the period to 30 September 2022, as described above.

The Directors also evaluated potential events and conditions during the period beyond the Assessment Period that may cast significant doubt on the going concern assessment, concluding that there were no other such events or conditions, with the Directors expecting to have options to either repay, extend or refinance the Revolving Credit Facility and term loans, which are otherwise available for use until October 2023, and November 2023 for the second term loan.

Based on this comprehensive assessment, the Directors concluded that the continued use of the going concern basis of accounting in preparing the Group's financial statements for the year ended 31 December 2021 remains appropriate.

2.6 Basis of consolidation

The consolidated financial statements comprise the financial statements of the Company and entities controlled by the Company (its subsidiaries) as at 31 December 2021. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

Generally, there is a presumption that a voting rights majority results in control. Net profit or loss and each component of other comprehensive income (OCI) are attributed to Petrofac Limited shareholders and to non-controlling interests, even if this results in the non-controlling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to align their accounting policies with the Group's accounting policies.

All intra-group transactions, balances, income and expenses are eliminated on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group ceases to control a subsidiary, it derecognises the related assets (including goodwill), liabilities, non-controlling interest and other components of equity while any resultant gain or loss is recognised in the consolidated income statement. Any investment retained is recognised at fair value.

Business combinations and goodwill
Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date, and the amount of any non-controlling interests in the acquiree. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. All transaction costs associated with business combinations are charged to the consolidated income statement in the reporting period of such combination.

Any contingent consideration to be transferred by the Group will be recognised at fair value at the acquisition date.

Contingent consideration classified as equity is not re-measured and its subsequent settlement is accounted for within equity. Contingent consideration classified as a liability that is a financial instrument and within the scope of IFRS 9 'Financial Instruments', is measured at fair value with the changes in fair value recognised in the consolidated income statement in accordance with IFRS 9.

Goodwill is initially measured at cost, being the excess of the aggregate consideration transferred and the fair value of the net assets acquired together with the amount recognised for non-controlling interests, and any previous interest held.

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 amount may be impaired.

For the purpose of impairment testing, goodwill is allocated to the cash-generating units that are expected to benefit from the synergies of the combination.

Impairment is determined by assessing the recoverable amount of the cash-generating units to which the goodwill relates.

Investment in associates and joint ventures
An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

The considerations made in determining significant influence or joint control are similar to those considerations applied to determine control over subsidiaries.

Associates and joint ventures

The Group's investments in its associates and joint ventures are accounted for using the equity method.

The consolidated income statement reflects the Group's share of the net profits of the associate or joint venture.

Any unrealised gains and losses resulting from transactions between the Group and associates and joint ventures are eliminated to the extent of the Group's ownership interest in these associates and joint ventures.

The financial statements of the associates and joint ventures are prepared for the same reporting period as the Group. When necessary, adjustments are made to align the accounting policies with those of the Group.

At the end of each reporting period, the Group determines whether there is objective evidence that its investment in its associates or joint ventures are impaired. If there is such evidence, the Group estimates the amount of any impairment as the difference between the recoverable amount of the associate or joint venture and its carrying amount and recognises this impairment loss in the consolidated income statement.

Joint operations

The Group's interests in joint operations are recognised in relation to its interest in a joint operation's:

- Assets, including its share of any assets held jointly
- Liabilities, including its share of any liabilities incurred jointly
- Revenue from the sale of its share of the output arising from the joint operation
- Share of the revenue from the sale of the output by the joint operation
- Expenses, including its share of any expenses incurred jointly

For joint operations, the Group's share of revenue earned and expenses incurred are recognised in the consolidated income statement. Assets controlled and liabilities incurred by the Group are recognised in the consolidated balance sheet.

Foreign currency translation

The consolidated financial statements are presented in United States dollars (US$).

Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency. Functional currency is defined as the currency of the primary economic environment in which the entity operates. The Group uses the direct method of consolidation and on disposal of a foreign operation, the gain or loss that is reclassified to net profit or loss reflects the amount that arises from using this method.

Transactions and balances

Transactions in foreign currencies are initially recorded by the Group's entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition.

Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency spot rates of exchange at the reporting date.

Differences arising on the settlement or translation of monetary items are recognised in other operating income or other operating expenses line items, as appropriate, of the consolidated income statement.

Non-monetary items that are measured at historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions.

Group subsidiaries

On consolidation, the assets and liabilities of subsidiaries with non-United States dollars functional currencies are translated into United States dollars at the rate of exchange prevailing at the reporting date and their income statements are translated at monthly average rates. The exchange differences arising on translation for consolidation are recognised in the consolidated statement of other comprehensive income. On disposal of a subsidiary with non-United States dollars as a functional currency, the component of the consolidated statement of other comprehensive income relating to currency translation is recognised in the consolidated income statement.

2.7 Significant accounting judgements and estimates

The preparation of the consolidated financial statements requires management to make judgements and estimates that affect the reported amounts of revenues, expenses, assets and liabilities, and the accompanying disclosures.

Judgements

In the process of applying the Group's accounting policies, management has made the following judgements, separate to those involving estimations (see below), which have the most significant effect on the amounts recognised in the consolidated financial statements:

Significant judgements associated with revenue recognition

- Revenue recognition on fixed-price engineering, procurement and construction contracts: the Group measures progress and recognises revenue on fixed-price engineering, procurement and construction contracts using the input method, based on the actual cost of work performed at the end of the reporting period as a percentage of the estimated total contract costs at completion. The Group considers the input method to faithfully depict the Group's performance in transferring control of goods and services to the customer and provides meaningful information in respect of progress towards the satisfaction of performance obligations on its contracts.
- In the early stages of contract completion, the outcome of a contract generally cannot be estimated reliably. The Group has established a threshold where contract revenues are recognised only to the extent of costs incurred to reflect this uncertainty. This threshold has been applied by the Group using a rebuttable presumption that contracts below 15% completion cannot yet be estimated reliably; however, judgement may be applied to deviate from this threshold dependent upon an objective evaluation of operational and contractual risks, e.g. taking into account contract value, duration, geography, complexities involved in the execution of the contract, past experience with the customer and risk mitigations.
- Management applies certain judgements associated with recognition and non-recognition of variable consideration, such as assessed variation orders and liquidated damages. The factors considered when determining whether to recognise variable consideration, together with the associated estimation uncertainty, are discussed below under section 'Estimation uncertainty'.

2 Summary of significant accounting policies continued

- Revenue recognition on joint arrangement contracts: the Group recognises its share of revenue and profit from contracts executed as part of a consortium in accordance with the agreed consortium contractual arrangement. In selecting the appropriate accounting treatment, the main consideration is the determination of whether the joint arrangement is a joint operation or joint venture (though not directly related to revenue recognition, this judgement has a material impact on presentation in the consolidated income statement) in accordance with IFRS 11 'Joint Arrangements'.

Significant judgements associated with contingent liabilities and provisions

Management applies significant judgements in determining whether it has a present or a possible obligation to disclose a contingent liability or a probable obligation to recognise a provision in the consolidated financial statements (note 27). Management, in certain instances, takes into consideration legal advice from its legal counsel and external legal advisors as well as independent specialist advice, to determine the probability of an outflow of resources embodying economic benefits that will be required to settle the obligation, if determined. Typically, the contingent liabilities include pending legal and tax cases with regulatory authorities and/or third parties; see note 30.

Significant judgements associated with cloud-based software and development costs

When the Group incurs customisation and configuration costs, as part of a service agreement, judgement is also required in assessing whether the Group has control over the resources defined in the arrangement. Management has considered the IFRIC agenda decision in April 2021 on the clarification of accounting in relation to these costs and applied the following judgements which have the most significant impact on the amounts recognised in the consolidated financial statements.

(i) Determining whether cloud computing arrangements contain a software licence intangible asset

The Group evaluates a cloud computing arrangement to determine if it provides a resource that the Group can control. The Group determines that a software licence intangible asset exists in a cloud computing arrangement when the following criteria is met at the inception of the arrangement:

- The Group has the contractual right to take possession of the software during the hosting period without significant penalty
- The costs incurred to configure or customise SaaS arrangements result in the creation of a resource which is identifiable, and the Group has the power to obtain the future economic benefits flowing from the underlying resource and to restrict the access of others to those benefits
- It is feasible for the Group to run the software on its own hardware or contract with another party unrelated to the supplier to host the software

(ii) Determining whether configuration and customisation costs provide a distinct service from access to the SaaS

The Group applies judgement in determining whether costs incurred provide a distinct service, aside from access to the SaaS. Where it is determined that no distinct service is identifiable, the related costs are recognised as expenses over the duration of the service contract.

As a result of the above assessment, US$12m was expensed (2020 restated: US$14m) in relation to SaaS arrangements where the configuration and customisation were assessed to provide a distinct service to access the SaaS. See notes 2.3, 2.9, 6 and 15 for further details.

Significant judgements associated with climate change-related risks

In response to the Paris Agreement goals, the Group has set a target to reduce its GHG emissions (Scope 1 and Scope 2) to Net Zero by 2030. The Group continues to develop its assessment of the potential impacts of climate change and the transition to a low carbon economy. The Group's current climate change strategy focuses on reducing GHG emissions, investing in low emission technologies, supporting emission reductions in the value chain and promoting product stewardship, managing climate-related risk and opportunity, and working with others to enhance the global policy and market response.

Future changes to the Group's climate change strategy or global decarbonisation milestones may impact the Group's significant judgements and key estimates and may result in material changes to financial results and the carrying values of certain assets and liabilities in future reporting periods. Also, the Group's Net Zero strategy is currently being managed on a consolidated Group basis and therefore it is currently not monitored at the level of individual assets. Any change to the Group's climate change strategy could impact its Net Zero position and the Group's significant judgements and key estimates.

The Group's activities, by their nature, are less dependent on its own physical assets or infrastructure, and as a result, at 31 December 2021, only 19% of total assets were non-current assets (2020: 19%) and only 7% were property, plant and equipment (2020: 7%).

The Group's assessment indicates that it has limited exposure to climate-related risks. These are analysed below:

- Property, plant and equipment (note 12): consists primarily of oil and gas assets and facilities relating to Block PM304 and MOPU lease, land and buildings, and other small assets. Block PM304 includes capitalised decommissioning costs of US$50m (2020: US$41m). The oil and gas assets and facilities have an assumed estimated useful life to 2026. The building and leasehold assets are expected to have minimal exposure to climate-related risks, including any specific risks associated with their locations. Vehicles and office furniture and equipment also have insignificant climate-related risks and have overall useful economic lives ending before 2030.
- Goodwill is allocated to the Engineering & Construction cash-generating unit (CGU) (US$41m) and the Asset Solutions CGU (US$60m). The underlying businesses produce sufficient cash flows over the next five years to support these current carrying values.
- Intangible assets include assets related to Block PM304, customer contracts pertaining to W&W Energy Services Inc and Group-wide digital IT systems. Those assets will be fully amortised by 2030 and therefore the risk related to climate change is minimal.
- Existing deferred tax assets will be recovered from available taxable profits prior to 2030. Where the recoverability is expected over an extended period (such as in the UK), appropriate sensitivities are assessed and disclosures are included in the relevant notes.

Significant judgements associated with the preparation of the parent and consolidated financial statements on a going concern basis

Management is required to make a decision whether to prepare the parent and consolidated financial statements on a going concern basis; for details see note 2.5.

Estimation uncertainty, including continued impact of COVID-19 pandemic

Any continued impact of the COVID-19 pandemic and the associated economic slowdown could have an impact on the Group's financial performance, financial position and cash flows in the next 12 months. The principal assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next reporting period are discussed below:

Fixed-price engineering, procurement and construction contracts

- Recognition of assessed variation orders pending customer approval (AVOs): an AVO is a management estimated right of payment due from the customer resulting for a customer instructed change in the contractual scope of work or for the reimbursement of costs not included in the contract price. The Group recognises revenues and profit from AVOs using the expected value approach to assess/reassess AVOs at contract inception and at each reporting date where it is considered highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the AVO is subsequently resolved. In performing the assessment, management considers the likelihood of such settlement being made by reference to the contract, independent specialist advice, customer communications, past experience with the customer and other forms of documentary evidence. At 31 December 2021, AVOs of US$338m were recognised in the consolidated balance sheet (2020: US$305m), of which US$337m (2020: US$276m) was included within the contract assets; and US$1m (2020: US$29m) was included as an offset against contract liabilities; see note 20. To the extent assessed variation orders pending customer approval are reflected in the transaction price are not resolved in the Group's favour, there could be reductions in, or reversals of, previously recognised revenue.
- Liquidated damages (LDs): LDs are contractual penalties applied by the customer, normally relating to failure of the contractor to meet agreed performance and progress outcomes. The Group estimates the application of LDs using the expected value approach and recognises an associated amount as a reduction to contract revenue. The Group assesses/reassesses its exposure to LD applications at each reporting date, where the customer has the contractual right to apply LDs and where it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the LDs is subsequently resolved. This requires a deterministic probability assessment of the monetary amount of LDs liable, which involves a number of management judgements and estimates (e.g. contractual position with the customer, negotiations with the customer specifically relating to extension of time (EoT), past experience with the customer, etc.), regarding the amounts to recognise in contract accounting. During 2021, liquidated damages amounting to US$6m were recognised as a decrease to the estimate at completion revenue that resulted in a decrease of US$6m to the Group's revenue recognised during the year through the application of contract progress (2020: US$8m of liquidated damages were reversed as an increase to the estimate at completion revenue that resulted in an increase of US$7m to the Group's revenue). No liquidated damages, resulting from progress delays associated with the COVID-19 pandemic, for Group's fixed-price EPC contracts, were recognised, since management judged these to be excusable delays in accordance with the terms and conditions of the contracts with customers. Any unfavourable outcome compared with management's current expectation may affect the revenue to be recognised in future periods and consequently would impact the financial performance and cash flows for future periods. This estimate will impact revenues and contract assets or contract liabilities.
- Estimate at completion contract costs: at the end of the reporting period the Group is required to estimate costs at completion on fixed-price EPC contracts, based on the work to be performed beyond the reporting period. This involves an objective evaluation of project progress against the delivery schedule, evaluation of work to be performed and the associated risks and costs to fully deliver the contract to the customer. On contracts where it is considered probable that contract costs exceed revenues at contract completion and the costs of fulfilling the contract are less than the compensation or penalties arising from a failure to fulfil it, the Group recognises an onerous contract provision in accordance with IAS 37 'Provisions, Contingent Liabilities and Contingent Assets' for future losses The COVID-19 pandemic resulted in lock down measures being applied by governments in various jurisdictions in which the Group operates. These lock down measures predominantly impacted procurement and construction activities on the Group's fixed-price EPC contracts, which resulted in lower than expected progress at the end of the reporting period. At 31 December 2021, the estimate at completion contract costs represented management's best estimate of contract costs, including where applicable costs associated with COVID-19 pandemic induced delays. In addition, cost reduction measures taken by the Group in response to COVID-19 pandemic were also included in the estimate at completion contract costs. The continued prevalence of COVID-19 pandemic may result in additional estimate at completion contract costs and consequently could negatively impact financial performance and cash flows for future periods. This could impact revenues, cost of sales, contract assets and contract liabilities. The carrying amount of onerous contract provisions at 31 December 2021 was US$39m (2020: US$38m); see note 27.

Income tax and deferred tax

- Income tax: Group entities are routinely subject to tax audits and assessments, including processes whereby tax return filings are discussed and agreed with the relevant tax authorities. Whilst the ultimate outcome of such tax audits and discussions cannot be determined with certainty, management estimates the uncertain tax treatments for jurisdictions where there is a probable future outflow, based on the applicable law and regulations, historic outcomes of similar audits and discussions, independent specialist advice and consideration of the progress and nature of current discussions with the tax authority concerned. Where management determines that a

2 Summary of significant accounting policies continued

greater than 50% probability exists that the tax authorities would accept the position taken in the tax return, amounts are recognised in the consolidated financial statements on that basis. Where the amount of tax payable or recoverable is uncertain, the Group recognises a liability or asset based on either management's judgement of the most likely outcome or, when there is a wide range of possible outcomes, a probability weighted average approach. The ultimate outcome following resolution of such audits and assessments may be materially higher or lower than the amounts recognised. The Group's subsidiaries' tax filings in different jurisdictions include deductions related to intercompany recharges and the taxation authorities may challenge those tax treatments. The Group determined, based on its tax compliance and transfer pricing studies, that it is probable that its tax treatments (including those for the subsidiaries) will be accepted by taxation authorities. The carrying amount of uncertain tax treatments (UTTs), recognised within the income tax payable line item of the consolidated balance sheet at 31 December 2021, was US$101m (2020: US$131m).
- Deferred tax assets: the Group recognises deferred tax assets on all applicable temporary differences where it is probable that the tax assets estimated are realised and future taxable profits will be available for utilisation. This requires management to make estimates concerning future taxable profits and the recoverability of recognised deferred tax asset balances. The carrying amount of deferred tax assets at 31 December 2021 was US$18m (2020: US$61m).

Contingent and deferred consideration measured at fair value through profit or loss

- Fair value of contingent consideration amounts receivable ('contingent consideration') arising from the disposal of Group's operations in Mexico in November 2020: the Group completed the disposal of its remaining 51% ownership interest in Petrofac Netherlands Holdings B.V. which owned the Group's operations in Mexico (PNHBV) to Perenco Energies International Limited ('Perenco'). This transaction completed the Integrated Energy Services operating segment's disposal of its operations in Mexico. The carrying amount of contingent consideration receivable from Perenco associated with the 100% disposal of the Group's ownership interest at 31 December 2021 was US$36m (2020: US$41m associated with remaining 51% disposal). Management considers there to be significant estimation uncertainty inherent in determining the fair value of this contingent consideration recognised in the consolidated balance sheet. The sources of estimation uncertainty pertained to: (i) the final determination of the completion consideration amount; (ii) proceeds associated with a ruling by the Tax Administration Service in Mexico; and (iii) achieving the contingent consideration criteria in the sales and purchase agreement (SPA) associated with the migration of the Magallanes and Arenque Production Enhancement Contracts to Production Sharing Contracts. Management applied risk factors (a Level 3 measurement of the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement') to the maximum contingent consideration amounts receivable to account for this uncertainty in determining the fair value of the contingent consideration. Determining these risk factors required significant judgements and assumptions concerning the outcome of future events and negotiations. These matters constituted a significant accounting estimate by management to determine the fair value of the contingent consideration at 31 December 2021. A fair value gain or loss will be recognised in the consolidated income statement, in the next reporting period or in the longer term, if the outcome of the uncertain future events are more or less favourable, respectively, than the current estimate (see note 17).
- Block PM304 oil and gas asset in Malaysia had a recoverable amount of US$96m (2020: US$116m). The recoverable amount, which was based on fair value less cost of disposal, was lower than the asset's carrying amount, resulting in an impairment charge of US$15m (2020: US$64m) in the period (note 6). The Group's fair value less cost of disposal estimate includes an assessment of future field performance, the likelihood of a licence extension beyond 2026 and future oil price assumptions. In addition, the cash outflows in respect of the provision for decommissioning (note 27) were based on the estimated licence period.
- Recoverable amount of deferred consideration relating to disposal of the JSD6000 installation vessel (the 'vessel'): the deferred consideration relating to disposal of the vessel, representing a contractual right to the Group, was recognised as a non-current asset in the consolidated balance sheet. The deferred consideration was initially measured and recognised at fair value and will be subsequently measured at fair value through profit or loss. The fair value of the deferred consideration, with management's current involvement and recent discussions with the Group's partner in the construction of the vessel, is based on the assumption that the Group's partner has the continued intent and the required capabilities to complete the construction and commissioning of the vessel within the due timeframe. The recoverable amount is also subject to change based on changes in the market value of similar specification deep-water vessels. At the end of each reporting period, management reviews its estimate to assess the ability of the Group's partner to complete the construction and commissioning of the vessel and in circumstances that may impair the Group's partner's ability to complete these activities, a fair value loss would be recognised in the consolidated income statement, in the next reporting period or in the longer term. Due to the ongoing COVID-19 pandemic, management reviewed the carrying amount of the deferred consideration associated with the disposal of the vessel and concluded that there was no fair value adjustment required in the year (2020: US$6m recorded as a separately disclosed item in the Engineering & Construction operating segment). A further 10% decrease in the valuation of the vessel would result in an additional negative fair value change of US$6m. The continued impact of the COVID-19 pandemic on global demand for oil and gas could have an adverse impact on the fair valuation of the vessel, that may result in additional negative fair value changes recognised in the consolidated income statement in future periods.

2.8 Significant accounting policies

Revenue from contracts with customers

The Group's principal activity is to design, build, manage and maintain infrastructure for the energy industries. Revenue from contracts with customers is recognised when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. The Group has generally concluded that it is the principal in its revenue arrangements, because it typically controls the goods or services before transferring them to the customer.

The Group provides warranties to customers with assurance that the related product will function as the parties intended because it complies with agreed-upon specifications. The Group does not provide warranties as a service, in addition to the assurance that the product complies with agreed-upon specifications, in its contracts with customers. As such, the Group concluded that such warranties are assurance-type warranties which will continue to be accounted for under IAS 37 'Provisions, Contingent Liabilities and Contingent Assets'.

Engineering & Construction

The Group provides fixed-price engineering, procurement and construction project execution services and reimbursable engineering, procurement and construction management services to the onshore and offshore oil and gas industry as well as renewable energy industries. Revenue is measured based on the consideration specified in a contract with a customer. The Group recognises revenue when or as it transfers control over a good or service to a customer.

The services provided under the fixed-price engineering, procurement and construction contract are satisfied over time rather than at a point in time, since the customer controls the works covered by the contract at the point when it is being built; the construction activity creates an asset that does not presuppose an alternative use to what it was designed for and the Group is entitled to collect payment for services while construction is underway and the customer simultaneously receives and consumes the benefits provided by the Group.

For fixed-price engineering, procurement and construction contracts, the Group measures progress and recognises revenue using the input method. This method is based on the actual cost of work performed, as a percentage of the estimate at completion cost at the end of the reporting period, once the outcome of a contract can be estimated reliably.

Fixed-price engineering, procurement and construction contracts contain distinct goods and services, but these are not distinct in the context of the contract and are therefore combined into a single performance obligation. At contract inception the management generally considers the following factors to determine whether the contract contains a single performance obligation or multiple performance obligations:

- It provides a significant service of integrating the goods or services with other goods or services promised in the contract into a bundle of goods or services that represent the combined output or outputs for which the customer has contracted
- One or more of the goods or services significantly modifies or customises, or are significantly modified or customised by, one or more of the other goods or services promised in the contract
- The goods or services are highly interdependent or highly interrelated

Contract modifications are generally not distinct from the existing contracts due to the significant integration service provided in the context of the contract and are accounted for as a modification of the existing contract and performance obligation, with a cumulative catch-up adjustment to revenue.

Variable consideration, e.g. variation orders (including those pending customer approval), liquidated damages and incentive payments are assessed/reassessed using:

- The expected value approach (i.e. the sum of probability-weighted amounts in a range of possible consideration amounts); or
- The most likely amount method (i.e. the single most likely outcome of the contract, which may be an appropriate estimate of the amount of variable consideration if the contract has only two possible outcomes for example the Group either achieves a performance bonus or does not)

as appropriate, at contract inception and at the end of each reporting period where it is considered highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

In performing the assessment, management considers the likelihood of such variable consideration being received by reference to the contract, anticipated performance on the contract, independent specialist opinions, customer communications, past experience with the customer and other forms of documentary evidence.

Revenues from cost-plus-fee contracts and reimbursable contracts are recognised using the input method for measuring progress towards complete satisfaction of the performance obligation.

An onerous contract provision is recognised where the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it.

Advance payments received from customers for fixed-price engineering, procurement and construction contracts are structured primarily for reasons other than the provision of finance to the Group (e.g. mobilisation costs), and they do not provide customers with an alternative to pay in arrears. In addition, the length of time between when the customer settles the amount to which the Group has an unconditional right to payment and the Group transfers goods and services to the customer is relatively short. Therefore, the Group has concluded that there is not a significant financing component within such contracts. Currently, excluding normal retention payments, the Group does not have any contracts where payments by a customer are over several years after the Group has transferred goods and services to the customer.

2 Summary of significant accounting policies continued

Asset Solutions
The Group's contracts with customers for the provision of reimbursable engineering and production services include distinct performance obligations based on the assessment that the service is capable of being distinct both individually and within the context of the contract. The services are satisfied over time given that the customer simultaneously receives and consumes the benefits provided by the Group and recognised using the input method for measuring progress towards complete satisfaction of the performance obligation.

Variable consideration, e.g. incentive payments and performance bonuses, are estimated at contract inception and at the end of each reporting period using the most likely amount approach, where the outcome is expected to be binary and where it is considered highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

Revenues from fixed-price contracts are recognised using the input method, measured by milestones completed or earned value once the outcome of a contract can be estimated reliably. In the early stages of contract completion, when the outcome of a contract cannot be estimated reliably, contract revenues are recognised only to the extent of costs incurred that are expected to be recoverable.

The Group does not generally receive advances from customers for its reimbursable engineering and production services contracts.

Integrated Energy Services Equity Upstream Investments
Revenue from sale of crude oil and gas comprise the Group's share of sales of hydrocarbons from the Group's equity upstream investments. Revenue is recognised when control has been passed to the buyer, i.e. the last outlet flange of the loading facility from where the goods are transferred to the customer.

Separately disclosed items
Separately disclosed items are individually material or significant irregular items of income and expense which the Directors believe should be separately disclosed in the income statement, to assist in understanding and fairly present the underlying financial performance achieved by the Group, by virtue of their nature or size. These are then summarised in note 6 of the consolidated financial statements, where further explanations and disclosures provide supplementary information to support the understanding of the Group's financial performance. Examples of items which may give rise to disclosure as separately disclosed items include the contribution of impairments of assets, fair value re-measurements, losses on acquisitions and disposals, discontinuation of certain business activities, restructuring and redundancy costs, significant business transformation costs, certain Corporate reporting segment professional services fees, loss on accelerated receipt of deferred consideration, other significant one-off events or transactions and material deferred tax movements arising due to foreign exchange differences in jurisdictions where tax is computed based on the functional currency of the country.

Property, plant and equipment
Property, plant and equipment is measured at cost less accumulated depreciation and accumulated impairment charges. Cost comprises the purchase price or construction cost and any costs directly attributable to making that asset capable of operating as intended. The purchase price or construction cost is the aggregate amount paid and the fair value of any other consideration given to acquire the asset. Depreciation is provided on a straight-line basis, other than on oil and gas assets.

Oil and gas assets	on a field-by-field basis (see below)
Oil and gas facilities	8 to 10 years (or lease term if shorter)
Buildings and leasehold improvements	3 to 20 years (or lease term if shorter)
Plant and equipment	3 to 25 years (or lease term if shorter)
Office furniture and equipment	2 to 4 years (or lease term if shorter)
Vehicles	3 to 5 years (or lease term if shorter)

Oil and gas assets are depreciated, on a field-by-field basis, using the unit-of-production method based on entitlement to proven and probable reserves, taking account of estimated future development expenditure relating to those reserves.

Each asset's estimated useful life, residual value and method of depreciation is reviewed and adjusted if appropriate at the end of the reporting period. No depreciation is charged on land or assets under construction.

The carrying amount of an item of property, plant and equipment is derecognised on disposal or when no future economic benefits are expected from its use with any gain or loss included in the other operating income line item in the consolidated income statement when the asset is derecognised.

In accordance with IFRS 16 'Leases', the Group has elected to present the right-of-use assets within the property, plant and equipment line item of the consolidated balance sheet, at the commencement date of the lease (i.e. the date at which the underlying asset is available for use). The right-of-use assets are presented within the same asset category as that within which the underlying assets would be presented if they were owned. The disaggregated information for right-of-use assets presented within the property, plant and equipment line item of the consolidated balance sheet is disclosed in note 12.

Leases

The Group assesses at contract inception whether a contract is, or contains, a lease; that is, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

Right-of-use assets

Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any re-measurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received.

Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets.

Right-of-use assets are subject to the same impairment requirements as those applicable to property, plant and equipment; see accounting policies associated with impairment of non-current assets.

Lease liabilities

At the commencement date of the lease, the Group recognises lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating a lease, if the lease term reflects the Group exercising the option to terminate.

In calculating the present value of lease payments, if the interest rate implicit in the lease is not readily determinable, the Group uses the incremental borrowing rate, defined as the rate of interest that a lessee would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment, at the lease commencement date.

After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is re-measured if there is a modification, a change in the lease term, a change in the in-substance fixed lease payments or a change in the assessment to purchase the underlying asset.

The Group's lease liabilities are included in other financial liabilities line items of the consolidated balance sheet; see note 17.

The Group makes certain judgements in determining the lease term for contracts that is or contains a lease:

- The Group determines the lease term as the non-cancellable term of the lease, together with any periods covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease, if it is reasonably certain not to be exercised
- The Group has the option to renew the lease term for some of its leases. The Group applies judgement in evaluating whether it is reasonably certain to exercise the option to renew. That is, it considers all relevant factors that create an economic incentive for it to exercise the renewal. After the commencement date, the Group reassesses the lease term if there is a significant event or change in circumstances that affects its ability or likelihood to exercise (or not to exercise) the option to renew (e.g. a change in business strategy)
- The determination of whether an arrangement is or contains a lease is based on the substance of the arrangement at the inception date and whether the fulfilment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys the right to use the asset

Short-term leases and leases of low-value assets

The Group applies the short-term lease recognition exemption to its leases of property, plant and equipment that have a lease term of 12 months or less. It also applies the lease of low-value assets recognition exemption to leases of property, plant and equipment that are considered of low value (i.e. below US$5,000).
Lease payments on short-term leases and leases of low-value assets are recognised as an expense on a straight-line basis over the lease term in cost of sales or selling, general and administration expenses line items of the consolidated income statement.

If the lease contract is cancellable by both lessee and lessor with no or insignificant penalty then the lease contract is considered to be cancellable and recognised as a short-term lease; refer to note 29 for amounts recognised in the consolidated income statement associated with the short-term and low-value asset leases.

Oil and gas intangible assets

Expenditure directly associated with evaluation (or appraisal) activities is capitalised as an intangible oil and gas asset.
Such costs include the costs of acquiring an interest, appraisal well drilling costs, payments to contractors and an appropriate share of directly attributable overheads incurred during the evaluation phase. For such appraisal activity, which may require drilling of further wells, costs continue to be recognised as an asset whilst related hydrocarbons are considered capable of commercial development. Such costs are subject to technical, commercial and management review to confirm the continued intent to develop, or otherwise extract value. When this is no longer the case, an impairment of the costs capitalised as an intangible is recognised in the consolidated income statement.
When such assets are declared part of a commercial development, related costs are transferred to property, plant and equipment. All intangible oil and gas assets are assessed for any impairment prior to transfer and any impairment charge is recognised in the consolidated income statement.

2 Summary of significant accounting policies continued

Non-oil and gas intangible assets

Intangible assets acquired in a business combination are initially measured at cost, being their fair values at the date of acquisition, and are recognised separately from goodwill where the asset is separable or arises from a contractual or other legal right and its fair value can be measured reliably. After initial recognition, intangible assets are carried at cost less accumulated amortisation and accumulated impairment charges.

Intangible assets with a finite life are amortised over their useful economic life using a straight-line method unless a better method reflecting the pattern in which the asset's future economic benefits are expected to be consumed can be determined. The amortisation charge for intangible assets is included in the cost of sales or selling, general and administration expenses line items of the consolidated income statement. The expected useful lives of assets are reviewed on an annual basis. Intangible assets are tested for impairment whenever there is an indication that the asset may be impaired.

Software-as-a-service arrangements

The Group's current SaaS arrangements are arrangements in which the Group does not control the underlying software used in the arrangement.

Software development costs incurred to configure or customise application software provided under a cloud computing arrangement and associated fees are recognised as operating expenses as and when the services are received where the costs represent a distinct service provided to the Group. When such costs incurred do not provide a distinct service, the costs are recognised as expenses over the duration of the SaaS contract.

The Group capitalises other software costs when the requirements of IAS 38 'Intangible Assets' are satisfied, including configuration and customisation costs which are distinct and within the control of the Group. Such software costs are capitalised and carried at cost less any accumulated amortisation and impairment, and amortised on a straight-line basis over the period which the developed software is expected to be used. Amortisation commences when the development is complete and the asset is available for use and is included in the selling, general and administration expenses line item of the consolidated income statement. The amortisation is reviewed at least at the end of each reporting period and any changes are treated as changes in accounting estimates.

Impairment of non-current assets (excluding goodwill)

At each reporting date, the Group reviews the carrying amounts of its property, plant and equipment and intangible assets to assess whether there is an indication that those assets may be impaired. If any such indication exists, the Group makes an estimate of the asset's recoverable amount. An asset's recoverable amount is the higher of its fair value less costs of disposal and its value in use. In assessing value in use, the estimated future cash flows attributable to the asset 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. Fair value less costs of disposal is based on the risk-adjusted discounted cash flow models. A post-tax discount rate is used in such calculations.

If the recoverable amount of an asset is estimated to be less than its carrying amount an impairment charge is recognised immediately in the consolidated income statement.

Where an impairment loss subsequently reverses, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but not exceeding the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior reporting periods. A reversal of an impairment loss is recognised immediately in the consolidated income statement.

Trade receivables

A trade receivable represents the Group's right to an amount of consideration that is unconditional (i.e. only the passage of time is required before payment of the consideration is due). Refer to accounting policies for financial assets.

Contract assets and contract liabilities

Contract assets

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognised for the earned consideration that is conditional.

Fixed-price engineering, procurement and construction contracts are presented in the consolidated balance sheet as follows:

- For each contract, the revenue recognised at the contract's measure of progress using the input method, after deducting progress payments received or amounts receivable from the customers, is presented within the contract assets line item in the consolidated balance sheet as work in progress
- The amounts recognised as work in progress are adjusted for any expected credit loss allowance considering the probability of default of the counter party. The probability of default data for the counter party is estimated with input from a third-party provider

Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Group performs under the contract.

Fixed-price engineering, procurement and construction contracts are presented in the consolidated balance sheet as follows:

- Where the payments received or receivable for any contract exceed revenue recognised, the excess is presented within the contract liabilities line item in the consolidated balance sheet as billings in excess of cost and estimated earnings

Fair value measurement

The Group measures financial instruments, such as derivatives, and contingent consideration receivable at fair value at each reporting date. Fair value related disclosures for financial instruments are disclosed in note 17.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability; or
- In the absence of a principal market, in the most advantageous market for the asset or liability

The principal or the most advantageous market must be accessible by the Group.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data is available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the consolidated financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 – Unadjusted quoted prices in active markets for identical financial assets or liabilities
- Level 2 – Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices)
- Level 3 – Inputs for the asset or liability that are not based on observable market data (unobservable inputs)

For assets and liabilities that are re-measured in the consolidated financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

For the purpose of fair value disclosures, the Group has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

Financial assets and financial liabilities
A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Financial assets
Initial recognition and measurement
Financial assets are classified at initial recognition at amortised cost and subsequently measured at fair value through profit or loss, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component are measured at the transaction price determined under IFRS 15 'Revenue from Contracts with Customers'.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Subsequent measurement
For purposes of subsequent measurement, financial assets are generally classified in the following categories:

- Amortised cost
- Financial assets at fair value through profit or loss

Amortised cost
This category is the most relevant to the Group and generally applies to trade and other receivables, receivable from joint operation partners for leases, deferred consideration receivables and advances relating to provision for decommissioning liability. The Group measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding

Financial assets at amortised cost are subsequently measured using the effective interest rate (EIR) method and are subject to impairment. Gains and losses are recognised in the consolidated income statement when the asset is derecognised, modified or impaired.

Financial assets at fair value through profit or loss
Financial assets at fair value through profit or loss include financial assets held for trading and financial assets designated upon initial recognition at fair value through profit or loss, or financial assets mandatorily required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets at fair value through profit or loss are carried in the consolidated balance sheet at fair value with net changes in fair value recognised in the consolidated income statement.

Contingent consideration arising from disposal of the Group's operations in Mexico was recognised as a financial asset at fair value through profit or loss within the other financial assets line items of the consolidated balance sheet. Any fair value change is recognised in the consolidated income statement (note 17).

The fair value changes to undesignated forward currency contracts are reported within the other operating income and other operating expenses line item in the consolidated income statement.

2 Summary of significant accounting policies continued

Impairment of financial assets

The Group recognises an allowance for expected credit losses (ECLs) for all financial assets not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include, if any, cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

For other financial assets measured at amortised cost, ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL). There was no significant increase in the credit risk for such financial assets since the initial recognition.

For trade receivables and contract assets, the Group applies a simplified approach in calculating ECLs (a lifetime ECL). Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. An impairment analysis by each operating segment is performed at each reporting date subject to the Group's established policies and procedures. Engineering & Construction and Integrated Energy Services operating segments that involve small populations of high-value receivables apply the probability of default data relating to each individual counterparty to calculate expected credit loss allowance at each reporting date. The probability of default data for the counterparty is sourced from a third-party provider.

Asset Solutions operating segment involves a large population of low-value receivables and applies a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns. The expected credit loss calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and where possible, forecasts of future economic conditions. The amount of ECLs are sensitive to changes in circumstances and of forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of a customer's actual default in the future.

The Group considers a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full. A financial asset is written off only when there is no reasonable expectation of recovering the contractual cash flows, based on the contractual position agreed with the customer, contract close-out negotiations or objective evidence of the customer's inability to pay.

Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and trade and other payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade and other payables, senior secured notes, loans and borrowings including bank overdrafts, derivative financial instruments and lease liabilities.

Subsequent measurement

For purposes of subsequent measurement, financial liabilities are classified in the following categories:

- Financial liabilities at fair value through profit or loss
- Financial liabilities at amortised cost (loans and borrowings)

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss.

Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered by the Group that are not designated as hedging instruments in hedge relationships. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognised in the consolidated income statement.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated at the initial date of recognition only if the criteria in IFRS 9 'Financial Instruments' are satisfied. Contingent consideration payable related acquisitions is designated as a financial liability measured at fair value through profit or loss (see note 17).

Financial liabilities at amortised cost (loans and borrowings)

This category generally applies to trade and other payables, interest-bearing loans and borrowings (note 26) and lease liabilities (note 17). After initial recognition, interest-bearing loans and borrowings and lease liabilities are subsequently measured at amortised cost using the EIR method.

Amortised cost is calculated by considering any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included as finance expense in the consolidated income statement.

Derecognition of financial assets and liabilities

Financial assets

A financial asset (or, where applicable, a part of a financial asset) is derecognised where:

- The rights to receive cash flows from the asset have expired
- The Group retains the right to receive cash flows from the asset, but has assumed an obligation to pay them in full without material delay to a third party under a 'pass-through' arrangement; or
- The Group has transferred its rights to receive cash flows from the asset and either (a) has transferred substantially all the risks and rewards of the asset, or (b) has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset

Financial liabilities

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires.

If an existing financial liability is replaced by another from the same lender, on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability such that the difference in the respective carrying amounts together with any costs or fees incurred are recognised in the consolidated income statement.

Derivative financial instruments and hedging

The Group uses derivative financial instruments such as forward currency contracts to hedge its risks associated with foreign currency fluctuations. Such derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently re-measured at fair value. Derivatives are carried as assets when the fair value is positive and as liabilities when the fair value is negative.

Any gains or losses arising from changes in the fair value of derivatives that do not qualify for hedge accounting are taken to the consolidated income statement.

The fair value of forward currency contracts is calculated by reference to current forward exchange rates for contracts with similar maturity profiles.

For the purposes of hedge accounting, hedges are classified as:

- Fair value hedges when hedging the exposure to changes in the fair value of a recognised asset or liability; or
- Cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction

The Group formally designates and documents the relationship between the hedging instrument and the hedged item at the inception of the transaction, as well as its risk management objectives and strategy for undertaking various hedge transactions. The documentation also includes identification of the hedging instrument, the hedged item or transaction, the nature of risk being hedged and how the Group will assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in the hedging transactions are highly effective in offsetting changes in fair values or cash flows of the hedged items.

The treatment of gains and losses arising from revaluing derivatives designated as hedging instruments depends on the nature of the hedging relationship, as follows:

Cash flow hedges

For cash flow hedges, the effective portion of the gain or loss on the hedging instrument is recognised directly in the consolidated statement of other comprehensive income in net unrealised gains/(losses) on derivatives, while the ineffective portion is recognised in the consolidated income statement. Amounts taken to other comprehensive income are transferred to the consolidated income statement when the hedged transaction affects the consolidated income statement.

If the hedging instrument expires or is sold, terminated or exercised without replacement or rollover, or if its designation as a hedge is revoked, any cumulative gain or loss previously recognised in other comprehensive income remains separately in equity until the forecast transaction occurs and affects the consolidated income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in other comprehensive income is immediately transferred to the consolidated income statement.

Share-based payments

Employees (including Executive Directors) of the Group receive remuneration in the form of share-based payment, whereby employees render services in exchange for shares or rights over shares ('equity-settled transactions').

2 Summary of significant accounting policies continued

Equity-settled transactions

The cost of equity-settled transactions with employees is measured by reference to the fair value at the date on which they are granted.

The cost of equity-settled transactions is recognised in the cost of sales or selling, general and administration expenses line items in the consolidated income statement, together with a corresponding increase in other reserves line item in the consolidated balance sheet, over the period in which the relevant employees become entitled to the award (the 'vesting period'). The cumulative expense recognised for equity-settled transactions at the end of the reporting period until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The charge or credit to the consolidated income statement for a period represents the movement in cumulative expense recognised from the beginning to the end of the reporting period.

No expense is recognised for awards that do not ultimately vest because non-market performance and/or service conditions have not been met. Where awards include a market or non-vesting condition, the transactions are treated as vested irrespective of whether the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

Equity awards cancelled, such as in the case of good leavers, are treated as vested immediately on the date of cancellation, and any expense not recognised for the award at that date is immediately recognised in the consolidated income statement.

Income taxes

Income tax expense represents the sum of current income tax and deferred tax.

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. Taxable profit differs from profit as reported in the consolidated 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 that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is recognised on all temporary differences at the balance sheet date between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, with the following exceptions:

- Where the temporary difference arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss
- In respect of taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, where the timing of reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future; and
- Deferred tax assets are recognised only to the extent that it is probable that a taxable profit will be available against which the deductible temporary differences and carried forward tax credits or tax losses 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 assets to be utilised. Unrecognised deferred tax assets are reassessed at each balance sheet date and are recognised to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

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

Current and deferred tax is charged or credited directly to other comprehensive income or equity if it relates to items that are credited or charged to, respectively, other comprehensive income or equity. Otherwise, income tax is recognised in the consolidated income statement.

2.9 Change in accounting policy

In April 2021, IFRIC published an agenda decision clarifying the accounting for implementation costs of Software-as-a-Service arrangements. As stated in note 2.3, SaaS arrangements are service contracts providing the Group with the right to access the cloud provider's application software over the contract period. As a result of this agenda decision, the Group has changed its accounting policy for such implementation costs and, to the extent that these costs do not give rise to an identifiable intangible asset, they are expensed in the consolidated income statement (having been capitalised previously). The Group has assessed the impact of this change in accounting policy on any cloud computing arrangements entered into during prior years and restated the comparative figures. As a result, an amount of US$14m of costs previously capitalised have now been expensed in the consolidated income statement. This restatement has affected the consolidated income statement, statement of cash flows, balance sheet and retained earnings, as shown on the following page. In accordance with IAS 1 'Presentation of Financial Statements', a balance sheet as at the beginning of the preceding year (i.e. at 1 January 2020) has been restated and presented.

The restatement represents a non-cash adjustment.

The revision to the accounting policy has been accounted for retrospectively, resulting in a prior year restatement, and the comparative financial information has been restated as presented on the following page.

The affected financial statement line items are as follows:

	31 Dec 2020 As reported US$m	Restatement US$m	31 Dec 2020 Restated US$m
Income statement and statement of comprehensive income impact			
Separately disclosed items – expense cloud configuration and customisation costs previously capitalised (note 6)	(229)	(14)	(243)
Selling, general and administration expenses – amortisation previously expensed (note 5b)	(167)	2	(165)
Operating loss	(148)	(12)	(160)
Loss before tax	(171)	(12)	(183)
Net loss	(189)	(12)	(201)
Net loss attributable to Petrofac Limited shareholders	(180)	(12)	(192)
Foreign currency translation losses	(16)	(2)	(18)
Comprehensive loss for the year	(217)	(14)	(231)
Loss per share (US cents):			
Loss per share – basic and diluted (note 9)	(53.4)	(3.6)	(57.0)
Balance sheet impact			
Intangible assets (note 15)	81	(30)	51
Total non-current assets	823	(30)	793
Total assets	4,201	(30)	4,171
Retained earnings	454	(28)	426
Other reserves	45	(2)	43
Total equity	440	(30)	410
Total equity and liabilities	4,201	(30)	4,171
Statement of cash flows impact			
Profit before tax and separately disclosed items	58	2	60
Depreciation, amortisation, business performance impairment and write-off	125	(2)	123
Separately disclosed items paid – operating costs	(19)	(14)	(33)
Net cash flows used in operating activities	(16)	(14)	(30)
Payments for intangible assets	(24)	14	(10)
Net cash flows used in investing activities	(21)	14	(7)
Net decrease in cash and cash equivalents	(279)	–	(279)

A third balance sheet has been presented in accordance with IAS 1 to illustrate the impact on the opening balance sheet as at 1 January 2020. The Group identified that US$16m of costs previously capitalised under cloud computing arrangements, should now be expensed. The opening balance sheet as at 1 January 2020 has been restated to correct for these accordingly, as shown below. The affected financial statement line items are as follows:

	1 Jan 2020 As reported US$m	Restatement US$m	1 Jan 2020 Restated US$m
Balance sheet impact			
Intangible assets	66	(16)	50
Total non-current assets	1,028	(16)	1,012
Total assets	5,976	(16)	5,960
Retained earnings	637	(16)	621
Total equity	914	(16)	898
Total equity and liabilities	5,976	(16)	5,960

3 Revenue from contracts with customers

	2021 US$m	2020 US$m
Rendering of services	**3,009**	4,006
Sale of crude oil and gas	**48**	75
	3,057	4,081

Included in revenue are Engineering & Construction and Asset Solutions revenue of a 'pass-through' nature with zero or low margins amounting to US$405m (2020: US$288m).

Set out below is the disaggregation of the Group's revenue from contracts with customers:

	Engineering & Construction US$m	Asset Solutions US$m	Integrated Energy Services US$m	2021 US$m	Engineering & Construction US$m	Asset Solutions US$m	Integrated Energy Services US$m	2020 US$m
Geographical markets								
United Kingdom	**150**	**592**	**–**	**742**	–	534	–	534
Algeria	**442**	**–**	**–**	**442**	576	–	–	576
Thailand	**410**	**18**	**–**	**428**	569	14	–	583
Oman	**373**	**16**	**–**	**389**	735	13	–	748
Kuwait	**193**	**3**	**–**	**196**	326	4	–	330
Iraq	**49**	**110**	**–**	**159**	105	133	–	238
United Arab Emirates	**94**	**39**	**–**	**133**	244	52	–	296
Netherlands	**84**	**29**	**–**	**113**	231	2	–	233
Russia	**108**	**2**	**–**	**110**	182	2	–	184
Bahrain	**–**	**76**	**–**	**76**	–	23	–	23
Singapore	**–**	**–**	**48**	**48**	–	–	12	12
United States of America	**–**	**49**	**–**	**49**	–	31	–	31
Kazakhstan	**–**	**37**	**–**	**37**	–	13	–	13
India	**22**	**1**	**–**	**23**	93	–	–	93
Malaysia	**2**	**16**	**2**	**20**	8	19	30	57
Turkey	**6**	**6**	**–**	**12**	24	4	–	28
Saudi Arabia	**7**	**–**	**–**	**7**	(32)	–	–	(32)
New Zealand	**–**	**7**	**–**	**7**	–	6	–	6
Germany	**6**	**–**	**–**	**6**	21	–	–	21
Libya	**4**	**1**	**–**	**5**	–	15	–	15
Mexico	**–**	**–**	**–**	**–**	–	–	68	68
Others	**17**	**38**	**–**	**55**	–	24	–	24
Total revenue from contracts with customers	**1,967**	**1,040**	**50**	**3,057**	3,082	889	110	4,081
Type of goods or service								
Fixed price	**1,760**	**226**	**–**	**1,986**	2,882	129	–	3,011
Reimbursable	**207**	**814**	**2**	**1,023**	200	760	35	995
Sale of crude oil and gas	**–**	**–**	**48**	**48**	–	–	75	75
Total revenue from contracts with customers	**1,967**	**1,040**	**50**	**3,057**	3,082	889	110	4,081
Customer type								
Government	**1,370**	**236**	**–**	**1,606**	2,178	184	68	2,430
Non-government	**597**	**804**	**50**	**1,451**	904	705	42	1,651
Total revenue from contracts with customers	**1,967**	**1,040**	**50**	**3,057**	3,082	889	110	4,081
Timing of revenue recognition								
Services transferred over time	**1,967**	**1,040**	**2**	**3,009**	3,082	889	35	4,006
Goods transferred at a point in time	**–**	**–**	**48**	**48**	–	–	75	75
Total revenue from contracts with customers	**1,967**	**1,040**	**50**	**3,057**	3,082	889	110	4,081

Revenue disclosed in the above tables is based on where the customer is located. Revenue representing greater than 10% of Group revenue arose from one customer amounting to US$410m (2020: US$569m, one customer) in the Engineering & Construction operating segment.

The transaction price allocated to the remaining performance obligations (unsatisfied or partially unsatisfied) as at the end of each reporting period is as follows:

	Engineering & Construction US$m	**Asset Solutions US$m**	**2021 US$m**	Engineering & Construction US$m	Asset Solutions US$m	2020 US$m
Within one year	**1,301**	**908**	**2,209**	2,151	876	3,027
More than one year	**1,074**	**746**	**1,820**	1,095	865	1,960
	2,375	**1,654**	**4,029**	3,246	1,741	4,987

4 Segment information

The Group organisational structure comprises the following three operating segments:

- Engineering & Construction, which provides fixed-price engineering, procurement and construction project execution services and reimbursable engineering, procurement and construction management services to the onshore and offshore oil and gas industry
- Asset Solutions, which mainly includes reimbursable engineering and production services activities to the oil and gas industry
- Integrated Energy Services, which is focused on delivering value from the existing asset portfolio

The Chief Operating Decision Makers (CODMs) have been identified as the Group's Chief Executive Officer and Chief Financial Officer. The CODMs regularly review the performance of the operating segments to make decisions about resource allocations and to assess financial performance. Finance expense and income arising from borrowings and cash balances, which are not directly attributable to individual operating segments, are allocated to Corporate. The software cost associated with configuration or customisation services are centralised activities not monitored at the segment level, and thus have been allocated to the Corporate segment. In addition, certain shareholder services-related costs, intra-group financing and consolidation adjustments are managed at Corporate and are not allocated to operating segments.

The Group's financial performance presented below also separately identifies the effect of separately disclosed items to provide users of the consolidated financial statements with a clear and consistent presentation of the underlying business performance of the Group; refer to notes 2, 6 and appendix A for details. Consequently, the CODMs assess the performance of the operating segments based on a measure of business performance profit after tax, excluding the effect of separately identified items.

The following tables represent revenue and profit/(loss) information relating to the Group's operating segments for the year ended 31 December 2021 and the restated comparative information for the year ended 31 December 2020.

Year ended 31 December 2021

	Engineering & Construction US$m	Asset Solutions US$m	Integrated Energy Services US$m	Corporate & others US$m	Consolidation adjustments & eliminations US$m	Business performance US$m	Separately disclosed items US$m	Reported US$m
Revenue								
External sales	1,967	1,040	50	–	–	3,057	–	3,057
Inter-segment sales	4	71	–	–	(75)	–	–	–
Total revenue	**1,971**	**1,111**	**50**	**–**	**(75)**	**3,057**	**–**	**3,057**
Operating (loss)/profit	(14)	67	(6)	(18)	–	29	(159)	(130)
Finance income	–	–	5	1	–	6	–	6
Finance expense	(1)	(2)	(5)	(36)	–	(44)	(28)	(72)
Share of net profit of associates and joint ventures	–	7	–	–	–	7	–	7
(Loss)/profit before tax	(15)	72	(6)	(53)	–	(2)	(187)	(189)
Income tax credit/(expense)	24	16	1	(1)	–	40	(43)	(3)
Net profit/(loss)	9	88	(5)	(54)	–	38	(230)	(192)
Attributable to:								
Petrofac Limited shareholders	8	86	(5)	(54)	–	35	(230)	(195)
Non-controlling interests	1	2	–	–	–	3	–	3
	9	**88**	**(5)**	**(54)**	**–**	**38**	**(230)**	**(192)**
EBITDA	**10**	**84**	**21**	**(11)**	**–**	**104**	**n/a**	**n/a**

4 Segment information continued

	Engineering & Construction US$m	Asset Solutions US$m	Integrated Energy Services US$m	Corporate & others US$m	Consolidation adjustments & eliminations US$m	Total US$m
Other segment information						
Capital expenditures:						
Property, plant and equipment (note 12)	**2**	**6**	**51**	**18**	**–**	**77**
Intangible assets (note 15)	**–**	**–**	**–**	**7**	**–**	**7**
Charges:						
Depreciation (note 12)	**24**	**9**	**27**	**2**	**–**	**62**
Amortisation, business performance impairment and write off (note 5a, note 5b and note 5g)	**–**	**1**	**–**	**5**	**–**	**6**
Separately disclosed items, pre-tax (note 6)	**5**	**11**	**19**	**152**	**–**	**187**
Expected credit loss credit (note 5e)	**(25)**	**–**	**–**	**–**	**–**	**(25)**
Other long-term employment benefits (note 27)	**6**	**2**	**–**	**1**	**–**	**9**
Share-based payments (note 24)	**3**	**2**	**–**	**2**	**–**	**7**

Year ended 31 December 2020 (restated)(1)

	Engineering & Construction US$m	Asset Solutions US$m	Integrated Energy Services US$m	Corporate & others US$m	Consolidation adjustments & eliminations US$m	Business performance US$m	Separately disclosed items (restated)(1) US$m	Reported US$m
Revenue								
External sales	3,082	889	110	–	–	4,081	–	4,081
Inter-segment sales	8	44	–	–	(52)	–	–	–
Total revenue	3,090	933	110	–	(52)	4,081	–	4,081
Operating profit/(loss)	79	45	(30)	(11)	–	83	(243)	(160)
Finance income	–	2	5	2	–	9	–	9
Finance expense	(1)	(2)	(7)	(27)	–	(37)	–	(37)
Share of net profit of associates and joint ventures	–	5	–	–	–	5	–	5
Profit/(loss) before tax	78	50	(32)	(36)	–	60	(243)	(183)
Income tax (expense)/credit	(21)	(10)	11	1	–	(19)	1	(18)
Net profit/(loss)	57	40	(21)	(35)	–	41	(242)	(201)
Attributable to:								
Petrofac Limited shareholders	63	40	(18)	(35)	–	50	(242)	(192)
Non-controlling interests	(6)	–	(3)	–	–	(9)	–	(9)
	57	40	(21)	(35)	–	41	(242)	(201)
EBITDA	114	60	39	(2)	–	211	n/a	n/a

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

	Engineering & Construction US$m	Asset Solutions US$m	Integrated Energy Services US$m	Corporate & others US$m	Consolidation adjustments & eliminations US$m	Total US$m
Other segment information						
Capital expenditures:						
Property, plant and equipment (note 12)	2	5	26	2	–	35
Intangible assets (restated)(1) (note 15)	–	–	–	9	–	9
Charges:						
Depreciation (note 12)	35	9	34	4	–	82
Amortisation, business performance impairment and write off (restated)(1) (note 5a, note 5b and note 5g)	–	1	35	5	–	41
Separately disclosed items, pre-tax (restated)(1) (note 6)	19	–	208	16	–	243
Expected credit loss allowance/(credit) (note 5e)	8	(4)	4	1	–	9
Other long-term employment benefits (note 27)	13	3	–	–	–	16
Share-based payments (note 24)	9	3	–	3	–	15

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

Geographical segments

The following tables present selected non-current assets by geographical segments for the years ended 31 December 2021 and 2020.

As at 31 December 2021

	Malaysia US$m	**United Arab Emirates US$m**	**United Kingdom US$m**	**India US$m**	**Kuwait US$m**	**Oman US$m**	**Other countries US$m**	**Total US$m**
Non-current assets:								
Property, plant and equipment (note 12)	**203**	**34**	**24**	**8**	**1**	**2**	**11**	**283**
Goodwill (note 14)	**3**	**29**	**44**	**–**	**–**	**–**	**25**	**101**
Intangible oil and gas assets (note 15)	**4**	**–**	**–**	**–**	**–**	**–**	**–**	**4**
Other intangible assets (note 15)	**–**	**–**	**34**	**–**	**–**	**–**	**5**	**39**

As at 31 December 2020

	Malaysia US$m	United Arab Emirates US$m	United Kingdom US$m	India US$m	Kuwait US$m	Oman US$m	Other countries US$m	Total US$m
Non-current assets:								
Property, plant and equipment (note 12)	170	48	40	12	7	2	9	288
Goodwill (note 14)	3	29	44	–	–	–	25	101
Intangible oil and gas assets (note 15)	13	–	–	–	–	–	–	13
Other intangible assets (restated)(1) (note 15)	–	–	33	–	–	–	5	38

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

5 Expenses and income

a. Cost of sales

Included in cost of sales are staff costs of US$669m (2020: US$702m), depreciation charged on property, plant and equipment of US$56m (2020: US$75m), amortisation charge on intangible assets of US$1m (2020: US$1m) and gain associated with ineffective portions on derivatives designated as cash flow hedges of US$3m (2020: loss US$5m).

b. Selling, general and administration expenses

	2021 US$m	2020 (restated)[1] US$m
Staff costs	**99**	102
Depreciation and amortisation (notes 12 and 15)	**11**	12
Other general and administration expenses	**65**	51
Business performance selling, general and administration expenses (before separately disclosed items)	**175**	165
Separately disclosed items (note 6)	**159**	243
	334	408

(1) The prior year amortisation is restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

Other general and administration expenses consist mainly of office-related costs, travel, professional services fees and contracting staff costs.

The increase in selling, general and administration expenses of US$10m was mainly due to an increase in other general and administration expenses of US$14m, primarily due to increases in insurance premiums and legal and professional fees.

c. Staff costs

	2021 US$m	2020 US$m
Total staff costs:		
Wages and salaries	**692**	715
Social security costs	**35**	33
Defined contribution pension costs	**25**	25
Other long-term employee benefit costs (note 27)	**9**	16
Share-based payments costs (note 24)	**7**	15
	768	804

Of the US$768m (2020: US$804m) of staff costs shown above, US$669m (2020: US$702m) is included in cost of sales and US$99m (2020: US$102m) in selling, general and administration expenses.

The average number of staff employed by the Group during the year was 8,752 (2020: 10,645).

d. Auditor's remuneration

The Group paid the following amounts to its auditor in respect of the audit of the financial statements and for other non-prohibited services provided to the Group:

	2021 US$m	2020 US$m
Group audit fee	**3**	3
Audit of subsidiaries' accounts	**1**	1
Other	**2**	–
	6	4

Other includes audit-related assurance services of US$58,000 (2020: US$19,000) and other non-audit services of US$1.5m (2020: US$0.1m), which included the completion of an interim review for the period to 30 June 2021 and work completed as the reporting accountant in respect of the comprehensive refinancing and capital raise, completed in the second half of the year.

e. Expected credit loss allowance

The movement in ECL allowance recognised by the Group during 2021 and 2020 was as follows:

	2021 US$m	2020 US$m
ECL reversal on trade receivables (note 19)	**(1)**	–
ECL (reversal)/charge on contract assets (note 20)	**(24)**	5
ECL (reversal)/charge on other financial assets (note 17)	**(1)**	2
ECL charge on receivables from joint operations partners (note 19)	**1**	–
ECL charge on other receivables (note 19)	**–**	2
	(25)	9

f. Other operating income

	2021 US$m	2020 US$m
Foreign exchange gains	**3**	6
Other income	**5**	15
	8	21

Other income included US$2m of aged trade payables reversed during the year relating to the Engineering & Construction operating segment (2020: US$7m in the Engineering & Construction operating segment) and a gain on disposal of property and equipment of $1m in the Engineering & Construction operating segment (2020: $1m in the Engineering & Construction operating segment).

g. Other operating expenses

	2021 US$m	2020 US$m
Foreign exchange losses	**3**	7
Other expenses	**4**	36
	7	43

During the prior year, other operating expenses mainly comprised an impairment charge of US$34m within the Integrated Energy Services operating segment relating to assets held for sale associated with the Group's operations in Mexico.

6 Separately disclosed items

	2021 US$m	2020 (restated)[1] US$m
UK Serious Fraud Office proceedings	**106**	–
Impairment of assets	**17**	146
Fair value re-measurements	**8**	57
Restructuring and redundancy costs	**2**	13
Cloud ERP software implementation costs (expensed due to change in accounting policy – note 2.9)	**12**	14
Other separately disclosed items	**14**	13
Total separately disclosed items as reported within selling, general and administrative expenses (note 5b)	**159**	243
Refinancing-related costs – separately disclosed items as reported within finance expense (note 7)	**28**	–
Foreign exchange translation loss on deferred tax balances	**–**	(1)
Deferred tax impairment	**43**	–
Total separately disclosed items as reported within income tax charge (note 8)	**43**	(1)
Consolidated income statement charge	**230**	242

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

UK Serious Fraud Office proceedings

On 12 May 2017, the SFO announced an investigation into the activities of Petrofac, its subsidiaries, and their officers, employees and agents for suspected bribery, corruption, and/or money laundering. In September 2021, the Company reached a plea agreement with the SFO such that the Company entered guilty pleas in respect of seven counts of failing to prevent former Petrofac Group employees from offering or making payments to agents in relation to projects in Iraq, Saudi Arabia and the United Arab Emirates, contrary to Section 7 of the UK Bribery Act 2010. As a result, on 4 October 2021 the Southwark Crown Court ordered the Company to pay a penalty of £77.0m. This comprises a confiscation order of £22.8m payable by 3 January 2022; a fine of £47.2m and SFO costs of £7.0m, both payable on 14 February 2022. At 31 December 2021, management has recorded a liability for a full amount payable at the year-end exchange rate (US$104m); note 28.

Impairment of assets

At 31 December 2021, internal and external impairment indicators existed, predominantly production rates from recently drilled wells and the likelihood of securing an extension for the Production Sharing Contract (PSC) beyond the current term, which expires in 2026. Consequently, the Group performed an impairment review of the carrying value amount of its Block PM304 oil and gas assets on a fair value less cost of disposal basis (Level 3 of the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement') using a post-tax discount rate of 9.5%. This assessment resulted in an impairment charge of US$15m (2020: US$64m) in the Integrated Energy Services operating segment. This includes $14m of right of use assets (note 12). In addition, an associated impairment of US$43m was recognised against the carrying amount of the deferred tax asset following the revised forecasts produced to complete the assessment noted above.

These reviews involved assessing the field operational performance; robustness of the future development plans; oil price and licence extension assumptions. As a result of this review, an impairment of US$15m was allocated proportionately to property, plant and equipment (US$14m; note 12, oil and gas assets and facilities) and intangible oil and gas assets (US$1m; note 15).

6 Separately disclosed items continued

The oil price assumptions used by management were US$70 per barrel for 2022 and 2023, US$65 per barrel for 2024 and US$60 per barrel for the remaining period of the assessment. The oil price assumption and the likelihood of a licence extension beyond 2026 were the most sensitive inputs in determining the fair value less cost of disposal; a further 10% decrease in oil prices would result in an additional impairment charge of US$30m.

Fair value less costs of disposal is determined by discounting the post-tax cash flows expected to be generated from oil and gas production net of disposal costs considering assumptions that market participants would typically use in estimating fair values. Post-tax cash flows are derived from projected production profiles for each asset considering forward market commodity prices over the relevant period and, where external forward prices are not available, the Group's Board-approved business planning assumptions were used. As each field has different reservoir characteristics and contractual terms, the post-tax cash flows for each asset are calculated using individual economic models, which include assumptions around the amount of recoverable reserves, production costs, life of the field/licence period and the selling price of the commodities produced.

During the current year, management identified impairment indicators for one of the Group's subsidiaries in the United Kingdom and as a result reviewed the carrying amount of property, plant and equipment, including right-of-use assets relating to that subsidiary, using the value-in-use basis. The value in use was calculated using the latest approved cash flow forecasts for 2022 to 2024 and a zero growth assumption for the period 2025 and beyond measured at present value using a discount rate of 15.2%. This review resulted in an impairment charge of US$2m in the Asset Solutions operating segment (2020: US$3m) relating to the right-of-use asset associated with a facility in the UK.

In the prior year, the Group disposed of its remaining 51% ownership interest relating to the Group's operations in Mexico. Consequently, an impairment loss of US$79m was recognised as a separately disclosed item in the consolidated income statement attributable to the Integrated Energy Services operating segment.

Fair value re-measurements

During 2021, management reviewed the carrying amount of the contingent consideration arising from the 2020 disposal of the Group's operations in Mexico and as a result of this review recognised a downward fair value adjustment of US$5m in the Integrated Energy Services operating segment (2020: US$42m). The downward fair value adjustment resulted from reassessing the recoverable amount of contingent consideration due from the acquirer (2020: uncertainty surrounding the Mexican Energy Reform programme and the outcome of other contingent consideration elements); see note 17 for more details.

Additionally, during 2021, management reviewed the carrying amount of the contingent consideration payable associated with the acquisition of W&W Energy Services Inc ('W&W'), following a change to the contingent consideration earn-out terms. This resulted in a negative fair value adjustment of US$3m being recognised in the Asset Solutions operating segment (2020: gain of US$8m). At the end of the year, the fair value of contingent consideration payable was calculated using an expected value pay-out approach applying a discount rate of 15.2% (Level 3 of the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement'). The fair value represented management's best estimate based on the expected financial performance targets that will be achieved by W&W, over the remaining evaluation period i.e. 2022 and 2023.

During 2020, management reviewed the carrying amount of the Pánuco contingent consideration and as a result of this review recognised a downward fair value adjustment of US$8m in the Integrated Energy Services operating segment in response to a confirmation received from the acquirer during 2020 to relinquish the Pánuco Production Enhancement Contract (PEC) to its customer. Additionally, during 2020, management reviewed the carrying amount of the contingent consideration receivable from the GSA acquirer and as a result of this review recognised a downward fair value adjustment of US$9m in the Integrated Energy Services operating segment. Also, during 2020, management reviewed the carrying amount of the deferred consideration associated with the disposal of the JSD6000 installation vessel that was recognised as a non-current asset in the consolidated balance sheet. The fair value of the deferred consideration took into account, amongst other factors, an independent broker's valuation of the vessel (a Level 3 measurement of the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement'). A downward fair value adjustment of US$6m was recognised as a separately disclosed item in the Engineering & Construction operating segment in that year, which reduced the deferred consideration to US$55m at 31 December 2020.

Restructuring and redundancy costs

In response to the reduced level of new orders recorded in the year, further cost reduction measures were taken by management which resulted in redundancy costs of US$1m recognised in the Engineering & Construction operating segment and US$1m in the Corporate reporting segment. This was following the actions announced by management in response to COVID-19 in the prior year to reduce costs and right size the organisation which resulted in a redundancy cost of US$8m being recognised in the Engineering & Construction operating segment and US$5m being recognised in the Asset Solutions operating segment.

Software implementation costs

Following IFRIC's agenda decision published in April 2021, the Group has revised its accounting policy regarding the customisation and configuration costs incurred when implementing a SaaS arrangement (see note 2.9). The Group is currently undertaking a major systems implementation for a new cloud computing software, resulting in costs of US$12m being recognised as an expense in the current year (2020 restated: US$14m). The first two phases of the implementation have been successfully completed.

Due to the size, nature and incidence of these costs, they are presented as a separately disclosed item, as they are not reflective of underlying performance. Additionally, as this is a large and complex implementation, it is expected that it will be completed over the next two to three years, especially following the disruption caused by COVID-19.

Refinancing related costs

During 2021, a capital raise (note 22) and comprehensive refinancing were completed to extend Petrofac's debt maturities and to create a long-term capital structure. Costs of US$28m were incurred which were integral to the execution of the refinancing but were not directly attributable to the secured facilities. These costs included facility fees for bridge finance, advisory fees paid on behalf of lenders, certain legal and professional fees, and accelerated amortisation associated with debt acquisition costs for facilities which were repaid during the year.

Other separately disclosed items

Other separately disclosed items comprised US$10m (2020: US$4m) of professional services fees relating to the Corporate reporting segment and a loss on disposal of US$4m in the Asset Solutions operating segment that related to the disposal of the Group's survival and marine, health and safety, fire and major emergency management capability, and facilities in Scotland (2020: $nil).

In the prior year, charges of US$6m (note 17), were also incurred in respect to an early settlement of deferred consideration receivable in the Integrated Energy Services operating segment; additional disposal costs associated with the disposal of the JSD6000 installation vessel of US$1m in the Engineering & Construction operating segment, whilst there was a gain of US$1m, relating to an early settlement of a contract asset in the Asset Solutions operating segment.

There was a foreign currency translation gain of US$1m relating to the translation of deferred tax balances denominated in Malaysia ringgits was recognised during the prior period in respect of the Group's assets in Malaysia, relating to the Integrated Energy Services operating segment and a foreign currency translation loss of US$3m that related to the closure of an engineering office in the Engineering & Construction operating segment.

7 Finance income/(expense)

	2021 US$m	2020 US$m
Finance income		
Bank interest	**1**	3
Unwinding of discount on receivables (note 17)	**5**	6
Total finance income	**6**	9
Finance expense		
Group borrowings	**(36)**	(27)
Lease liabilities	**(7)**	(9)
Unwinding of discount on provisions (note 27)	**(1)**	(1)
Business performance finance expense (before separately disclosed items)	**(44)**	(37)
Separately disclosed items – refinancing related costs (note 6)	**(28)**	–
Total finance expense	**(72)**	(37)

Group borrowing costs have increased during 2021 following the debt refinancing exercise completed in October 2021, and the issuing of the senior secured notes (note 26).

8 Income tax

a. Tax on ordinary activities

The major components of income tax (credit)/expense are as follows:

	Business performance[1] US$m	Separately disclosed items US$m	Reported 2021 US$m	Business performance[1] US$m	Separately disclosed items US$m	Reported 2020 US$m
Current income tax						
Current income tax expense/(credit)	**26**	**(1)**	**25**	51	–	51
Adjustments in respect of previous years	**(56)**	**–**	**(56)**	(18)	–	(18)
Deferred tax						
Relating to origination and reversal of temporary differences	**(5)**	**–**	**(5)**	(18)	–	(18)
Changes in tax rates and legislation	**(4)**	**–**	**(4)**	(2)	–	(2)
Derecognition of deferred tax previously recognised	**–**	**44**	**44**	3	(1)	2
Adjustments in respect of previous years	**(1)**	**–**	**(1)**	3	–	3
Income tax (credit)/expense reported in the consolidated income statement	**(40)**	**43**	**3**	19	(1)	18
Income tax reported in equity						
Deferred tax related to items charged directly to equity	**–**	**–**	**–**	1	–	1
Foreign exchange movements on translation	**1**	**–**	**1**	(2)	–	(2)
Income tax expense/(credit) reported in equity	**1**	**–**	**1**	(1)	–	(1)

(1) This measurement is shown by the Group as a means of measuring underlying business performance; see note 2 and appendix A.

The split of the Group's income tax expense between current and deferred tax varies from year to year depending largely on:

- the variance between tax provided on the percentage of completion of contracts compared with that paid on accrued income for fixed-price engineering, procurement and construction contracts; and
- the tax deductions available for expenditure on Production Sharing Contracts and Production Enhancement Contracts, which are partially offset by the creation of losses.

See note 8c below for the impact on the movements in the year.

b. Reconciliation of income tax expense

A reconciliation between income tax expense and the product of accounting profit multiplied by the Company's domestic tax rate is as follows:

	Business performance[1] US$m	Separately disclosed items US$m	Reported 2021 US$m	Business performance[1] US$m	Separately disclosed items US$m	Reported 2020 US$m
(Loss)/profit before tax	**(2)**	**(187)**	**(189)**	60	(243)	(183)
Applicable tax (credit)/charge at standard statutory tax rates[2]	**(36)**	**(13)**	**(49)**	2	(61)	(59)
Expenditure not allowable for income tax purposes	**25**	**12**	**37**	7	37	44
Income not subject to tax	**(4)**	**–**	**(4)**	(2)	(2)	(4)
Adjustments in respect of previous years	**(57)**	**–**	**(57)**	(15)	–	(15)
Adjustments in respect of deferred tax previously recognised/unrecognised	**–**	**44**	**44**	3	–	3
Unrecognised deferred tax	**32**	**–**	**32**	27	26	53
Other permanent differences	**4**	**–**	**4**	(1)	(1)	(2)
Effect of change in tax rates[3]	**(4)**	**–**	**(4)**	(2)	–	(2)
At the effective income tax rate of negative 1.1% on reported profit before tax (2020: 9.8%)	**(40)**	**43**	**3**	19	(1)	18

(1) This measurement is shown by the Group as a means of measuring underlying business performance; see note 2 and appendix A.
(2) The weighted average statutory tax rate was 25.8% in 2021 (2020: 32.2%). Compared with 2020, the rate in 2021 was mainly due to losses incurred in jurisdictions subject to lower tax rates, resulting in a lower weighted average statutory tax rate compared with the prior year.
(3) The 2021 balance relates to the substantive enactment of the increase in the UK corporation tax rate from 19% to 25%, effective 1 April 2023.

The Group's effective tax rate for the year ended 31 December 2021 was negative 1.1% (2020: 9.8%). The Group's effective tax rate excluding the impact of impairments, re-measurements and other separately disclosed items for the year ended 31 December 2021 was greater than 100% (2020: 31.7%).

The change from the prior year was mainly due to the release of uncertain tax treatment items in various territories following the successful outcomes of tax audits and assessments during 2021. The balance in the 'adjustments in respect of previous years' includes $5m in relation to the release of an uncertain tax treatment provision that should have been recognised in the prior year. In the Directors' judgement, this amount is not considered material and therefore the prior year balances have not been restated.

The Group's future tax charge will be sensitive to the levels and mix of profitability in different jurisdictions, tax rates imposed and any future tax regime reforms. In 2021, the UK Government enacted legislation to increase the main rate of corporation tax to 25% with effect from 1 April 2023. In December 2021, the OECD issued model rules for a new global minimum tax framework, setting out the scope of and the mechanism for calculating the global minimum tax. The Group is reviewing the model rules and awaiting the OECD's anticipated publication of further guidance, as well as new legislation expected to be released by governments implementing this new tax regime, to assess the potential impact of any new legislation on the Group.

c. Deferred tax

Deferred tax relates to the following:

	Consolidated balance sheet		Movement	
	2021 US$m	2020 US$m	**2021 US$m**	2020[1] US$m
Deferred tax liabilities				
Accelerated depreciation for tax purposes	**–**	22	**(22)**	7
Profit recognition	**28**	32	**(4)**	2
Overseas earnings	**3**	6	**(3)**	2
Other temporary differences	**–**	2	**(2)**	1
Gross deferred tax liabilities	**31**	62	**(31)**	12
Deferred tax assets				
Losses available for offset	**15**	62	**47**	(18)
Decelerated depreciation for tax purposes	**2**	7	**5**	(1)
Share-based payment plans	**–**	1	**1**	–
Decommissioning	**–**	4	**4**	2
Other temporary differences	**3**	11	**8**	(5)
Gross deferred tax assets	**20**	85	**65**	(22)
Net deferred tax (liability)/asset and income tax expense/(credit)	**(11)**	23	**34**	(10)
Of which:				
UK	**17**	18	**n/a**	n/a
Malaysia	**–**	43	**n/a**	n/a
Other (outside of the UK and Malaysia)	**1**	–	**n/a**	n/a
Deferred tax assets	**18**	61	**n/a**	n/a
Deferred tax liabilities	**29**	38	**n/a**	n/a

The Group recognises deferred tax assets to the extent that it is probable that sufficient future taxable profits will arise, against which the deductible temporary differences can be utilised. Included within the net deferred tax asset are UK tax losses of US$59m (2020: US$58m) and other deductible temporary differences. The Group has performed an assessment of recovery of deferred tax assets and reviewed the forecasts for all entities in the UK, and the ability of those entities to generate sufficient future taxable profits. It should be noted that there is no time limit on the utilisation of UK tax losses and business profit forecasts indicate that these losses will be fully recovered within eight years (2020: eight years). It is considered that these sources of profits are sufficiently predictable to support this recognition period.

Assessing the availability of future taxable profits to support the recognition of deferred tax assets is considered a key judgement and changes in Group forecasts will impact the recoverability of deferred tax assets. To the extent that there are insufficient taxable profits, no deferred tax asset is recognised, and details of unrecognised deferred tax assets are included below.

Deferred tax liabilities of US$0.3m (2020: US$3m) are not recognised on the unremitted earnings of overseas subsidiaries, associates and joint ventures as the Group is able to control the timing of the reversal of these temporary differences and it is probable that they will not reverse in the foreseeable future. Unrecognised taxable temporary differences associated with undistributed retained earnings of investments in subsidiaries, joint ventures and associates amounted to US$5m (2020: US$11m).

d. Unrecognised tax losses and tax credits

The Group did not recognise deferred income tax assets on tax losses and credits of US$1,458m (2020: US$1,327m) because it is not probable that future taxable profits will be available against which the Group can utilise the benefits.

8 Income tax continued

	2021 US$m	2020 US$m
Expiration dates for tax losses		
No later than 2025	**3**	3
No expiration date	**1,444**	1,313
	1,447	1,316
Tax credits (no expiration date)	**11**	11
	1,458	1,327

During 2021, no previously unrecognised losses were utilised by the Group (2020: US$nil).

9 Earnings per share

Basic earnings per share is calculated by dividing the net profit for the year attributable to Petrofac Limited shareholders by the weighted average number of ordinary shares outstanding during the year.

Diluted earnings per share is calculated by dividing the net profit attributable for the year to Petrofac Limited shareholders, after adjusting for any dilutive effect, by the weighted average number of ordinary shares outstanding during the year, adjusted for the effects of ordinary shares granted under the share-based payment plans which are held in the Employee Benefit Trust.

The following reflects the net profit and share data used in calculating basic and diluted earnings per share:

	2021 US$m	2020 (restated)(3) US$m
Business performance net profit attributable to Petrofac Limited shareholders for basic and diluted earnings per share	**35**	50
Separately disclosed items attributable to Petrofac Limited shareholders for basic and diluted earnings per share	**(230)**	(242)
Reported net profit attributable to Petrofac Limited shareholders for basic and diluted earnings per share	**(195)**	(192)

	2021 Shares million	2020 Shares million
Weighted average number of ordinary shares for basic earnings per share(1)	**362**	337
Effect of dilutive potential ordinary shares granted under share-based payment plans(2)	**–**	–
Adjusted weighted average number of ordinary shares for diluted earnings per share	**362**	337

	2021 US cents	2020 (restated)(3) US cents
Basic earnings per share		
Business performance	**9.7**	14.8
Separately disclosed items	**(63.5)**	(71.8)
Reported	**(53.8)**	(57.0)
Diluted earnings per share(2)		
Business performance	**9.7**	14.8
Separately disclosed items	**(63.5)**	(71.8)
Reported	**(53.8)**	(57.0)

(1) The weighted number of ordinary shares in issue during the year, excluding those held by the Employee Benefit Trust. The increase in the number of shares in 2021 reflects the capital raise completed on 15 November 2021, which resulted in 173,906,085 new shares being issued.
(2) For the years ended 31 December 2020 and 2021, potentially issuable ordinary shares under the share-based payment plans are excluded from the diluted earnings per ordinary share calculation, as their inclusion would decrease the loss per ordinary share.
(3) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

10 Dividends paid and proposed

In April 2020, the Board agreed to cancel the final 2019 ordinary share dividend payments and to cancel subsequent dividends in response to the challenges presented by the COVID-19 pandemic. Dividend payments were therefore also cancelled in 2020. The Board recognises the importance of dividends to our shareholders, but in light of current market conditions has decided that dividend payments will remain suspended (and therefore no dividend will be paid in respect of 2021), but will seek to reinstate them as soon as it is appropriate to do so. This will be contingent on both a market recovery and confidence that the dividend can be paid sustainably whilst retaining a strong balance sheet and liquidity. Under the terms of the new debt facilities, the Company will be permitted to pay dividends from 1 January 2023, subject to the satisfaction of certain covenant tests.

11 Deferred consideration

The deferred consideration associated with the disposal of the JSD6000 installation vessel (the 'vessel') was recognised as a non-current asset in the consolidated balance sheet. The deferred consideration is measured at fair value, with any fair value gain and loss recognised in the consolidated income statement. The fair value of the deferred consideration took into account, amongst other factors, an independent broker's valuation of the vessel (a Level 3 measurement of the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement'). During the prior year, a negative fair value movement of US$6m was recognised as a separately disclosed item in the consolidated income statement at the end of the reporting period (note 6). The fair value of deferred consideration was US$55m at 31 December 2021 (2020: US$55m). A 10% decrease in the valuation of the vessel would result in a negative fair value change of US$6m.

12 Property, plant and equipment

	Oil and gas assets US$m	Oil and gas facilities US$m	Land, buildings and leasehold improvements US$m	Plant and equipment US$m	Vehicles US$m	Office furniture and equipment US$m	Assets under construction US$m	Total US$m
Cost								
At 1 January 2020	516	180	434	38	33	176	1	1,378
Additions	26	–	7	2	1	4	–	40
Disposals	–	–	(3)	(3)	–	(13)	–	(19)
Transfer to intangible assets (note 15)	–	–	–	–	–	(2)	–	(2)
Write-off	(4)	–	(1)	–	–	–	–	(5)
Translation difference	–	–	1	–	–	(2)	–	(1)
At 1 January 2021	538	180	438	37	34	163	1	1,391
Additions	41	25	3	1	2	4	1	77
Disposals	–	–	(12)	(7)	(1)	(3)	(1)	(24)
Transfer from intangible assets (note 15)	8	–	–	–	–	–	–	8
Translation difference	–	–	(1)	–	–	(1)	–	(2)
At 31 December 2021	**587**	**205**	**428**	**31**	**35**	**163**	**1**	**1,450**
Depreciation and impairment								
At 1 January 2020	(373)	(86)	(304)	(30)	(26)	(161)	–	(980)
Depreciation charge (note 5a and 5b)	(19)	(12)	(35)	(2)	(4)	(10)	–	(82)
Impairment charge (note 6)	(37)	(22)	(3)	(1)	–	–	–	(63)
Disposals	–	–	3	3	–	13	–	19
Write-off	3	–	1	–	–	–	–	4
Translation difference	–	–	(1)	–	–	–	–	(1)
At 1 January 2021	(426)	(120)	(339)	(30)	(30)	(158)	–	(1,103)
Depreciation charge (note 5a and 5b)	(15)	(11)	(24)	(1)	(3)	(8)	–	(62)
Impairment charge (note 6)	(10)	(4)	(2)	–	–	–	–	(16)
Disposals	–	–	5	5	1	2	–	13
Translation difference	–	–	–	–	–	1	–	1
At 31 December 2021	(451)	(135)	(360)	(26)	(32)	(163)	–	(1,167)
Net carrying amount								
At 31 December 2021	**136**	**70**	**68**	**5**	**3**	**–**	**1**	**283**
At 31 December 2020	112	60	99	7	4	5	1	288

12 Property, plant and equipment continued

Additions

Additions to oil and gas assets and facilities in the Integrated Energy Services operating segment mainly comprised US$50m relating to Block PM304 in Malaysia (2020: US$26m). Additions to land, buildings and leasehold improvements of US$3m (2020: US$7m) mainly comprised right-of-use asset additions of US$1m associated with the Asset Solutions operating segment. Additions to office furniture and equipment of US$4m (2020: US$4m) mainly related to new office furniture and equipment in the Asset Solutions operating segment.

Depreciation

The depreciation charge in the consolidated income statement is split between US$56m (2020: US$75m) in cost of sales and US$6m (2020: US$7m) in selling, general and administration expenses.

Disposals

The disposal in predominantly land, buildings and leasehold improvements and plant and equipment, having a net carrying amount of US$11m (2020: US$nil), related to the sale of the Group's subsidiary Petrofac Training Holdings Limited and office renovation in the Asset Solutions operating segment.

Right-of-use assets

The table below provides details of right-of-use assets recognised within various categories of property, plant and equipment line item:

	Oil and gas facilities US$m	Land, buildings and leasehold improvements US$m	Plant and equipment US$m	Vehicles US$m	Total US$m
At 1 January 2020	90	50	1	4	145
Additions	–	5	–	–	5
Depreciation charge	(12)	(10)	(1)	(3)	(26)
Impairment charge (note 6)	(22)	(3)	–	–	(25)
At 1 January 2021	56	42	–	1	99
Additions	25	2	–	1	28
Depreciation charge	(11)	(7)	–	(1)	(19)
Disposals	–	(2)	–	–	(2)
Impairment charge (note 6)	(11)	(2)	–	–	(13)
At 31 December 2021	**59**	**33**	**–**	**1**	**93**

13 Non-controlling interests

Movement of non-controlling interest in Petrofac Emirates LLC, Petrofac Netherland Holdings B.V. and Petro Oil and Gas Limited	**2021 US$m**	2020 US$m
At 1 January	**7**	281
Profit/(loss) for the year	**3**	(9)
Disposal of the Group's operations in Mexico	**–**	(265)
At 31 December	**10**	7

The proportion of the nominal value of issued shares controlled by the Group is disclosed in note 34. Summarised financial information for subsidiaries having non-controlling interests that are considered material to the Group is shown below:

	Petrofac Netherlands Holdings B.V. and Petro Oil and Gas Limited		Petrofac Emirates LLC	
Summarised income statement	**2021 US$m**	2020 US$m	**2021 US$m**	2020 US$m
Revenue	**–**	68	**298**	403
Cost of sales	**–**	(36)	**(291)**	(412)
Gross profit	**–**	32	**7**	(9)
Selling, general and administration expenses	**–**	(2)	**(3)**	(6)
Other income	**–**	1	**10**	–
Other expense	**–**	(39)	**–**	–
Net finance expense	**–**	–	**(3)**	(4)
Income tax expense	**–**	1	**–**	–
Net (loss)/profit for the year	**–**	(7)	**11**	(19)
Attributable to non-controlling interest	**–**	(4)	**3**	(5)
Summarised balance sheet				
Non-current assets	**–**	–	**–**	2
Current assets	**–**	–	**350**	267
Total assets	**–**	–	**350**	269
Non-current liabilities	**–**	–	**4**	7
Current liabilities	**–**	–	**303**	232
Total liabilities	**–**	–	**307**	239
Total equity	**–**	–	**43**	30
Attributable to non-controlling interest	**–**	–	**10**	7

Petrofac Netherlands Holdings B.V. and Petro Oil and Gas Limited were disposed of during 2020.

	Petrofac Netherlands Holdings B.V. and Petro Oil and Gas Limited		Petrofac Emirates LLC	
Summarised cash flow statement	**2021 US$m**	2020 US$m	**2021 US$m**	2020 US$m
Operating	**–**	38	**(73)**	55
Investing	**–**	(10)	**51**	–
Financing	**–**	(2)	**11**	(82)
	–	26	**(11)**	(27)

No dividends were declared by Petrofac Emirates LLC during 2021 (2020: US$nil).

14 Goodwill

A summary of the movements in goodwill is presented below:

	2021 US$m	2020 US$m
At 1 January	**101**	99
Translation difference	**–**	2
At 31 December	**101**	101

Goodwill resulting from business combinations has been allocated to two groups of cash-generating units (CGUs) for impairment testing as follows:

- Engineering & Construction
- Asset Solutions

These groups of CGUs represent the lowest level within the Group at which goodwill is monitored for internal management purposes. The Group considers CGUs to be individually significant where they represent greater than 25% of the total goodwill balance.

14 Goodwill continued

Carrying amount of goodwill allocated to each group of cash-generating units

	2021 US$m	2020 US$m
Engineering & Construction	**41**	41
Asset Solutions	**60**	60
	101	101

Goodwill is tested for impairment at least annually. The recoverable amount of a CGU is determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on future financial business plans approved by the Board, based on past performance and its expectation of market developments. The key assumptions within these budgets relate to market share, revenue and the future profit margin achievable, in line with the Group's strategy and targets as set out in the Strategic report. Future budgeted revenue is based on management's knowledge of actual results from prior years and latest forecasts for the current year, along with the existing secured works and management's expectation of the future level of work available within the market sector. In establishing future profit margins, the margins currently being achieved are considered in conjunction with expected inflation rates in each cost category.

Cash is monitored on a regular basis for the purposes of managing both treasury and the business as a whole. The assumptions used are reviewed regularly and differences between forecast and actual results are closely monitored, with variances being investigated fully. The knowledge gained from this past experience is used to ensure that the future assumptions used are consistent with past actual outcomes and are management's best estimate of the future cash flows of each business unit.

Cash flows beyond the business plan three-year period are extrapolated using an estimated growth rate within each segment. The growth rate used is the Group's estimate of the average long-term growth rate for the market sectors in which the CGU operates. Furthermore, sensitivity analysis has been undertaken on each goodwill impairment review, by changing the discount rates, profit margins, growth rates and other variables applicable to each CGU.

The pre-tax discount rates for each CGU are noted below.

Any continuing impact of COVID-19 has been reflected in the Group's approved business plans for the next three years, with budgeted operating margins updated on a contract by contract basis reflecting ongoing standard operating procedures and costs to reflect Government and industry health and safety guidelines.

Engineering & Construction CGU

A pre-tax discount rate of 15.2% (2020: 14.0%) in Engineering & Construction has been applied to the future cash flows, based on an estimate of the weighted average cost of capital (WACC) of that division.

The value in use is based on the business plan cash flows of three years (reflecting the Board-approved business plan operating margins and working capital cash flows) and assume no growth in cash flows beyond the three-year period for the subsequent two years and these assumptions result in the recoverable value of this CGU being significantly greater than the carrying value of the CGU asset.

The Engineering & Construction CGU is not sensitive to changes in key assumptions and management does not consider that any reasonable possible change in any single assumption would give rise to an impairment of the carrying value of goodwill and intangibles.

Asset Solutions CGU

A pre-tax discount rate of 15.2% (2020: 14.0%) in Asset Solutions has been applied to the future cash flows, based on an estimate of the WACC of that division.

The value in use is based on the business plan cash flows of three years (reflecting the Board-approved business plan operating margins and working capital cash flows) and assume a subsequent growth rate of 1.0% in cash flows beyond the three-year period for the subsequent two years, and these assumptions result in the recoverable value of this CGU being significantly greater than the carrying value of the CGU asset.

The Asset Solutions CGU is not sensitive to changes in key assumptions and management does not consider that any reasonable possible change in any single assumption would give rise to an impairment of the carrying value of goodwill and intangibles.

15 Intangible assets

	2021 US$m	2020 (restated)[1] US$m
Intangible oil and gas assets		
Carrying value:		
At 1 January	**13**	17
Transferred to property, plant and equipment (note 12)	**(8)**	–
Impairment charge (note 6)	**(1)**	(4)
At 31 December	**4**	13
Other intangible assets		
Cost:		
At 1 January	**60**	49
Additions	**7**	9
Transfer from property, plant and equipment (note 12)	**–**	2
At 31 December	**67**	60
Accumulated amortisation:		
At 1 January	**(22)**	(16)
Amortisation (note 5a and 5b)	**(6)**	(5)
Translation difference	**–**	(1)
At 31 December	**(28)**	(22)
Carrying amount of other intangible assets at 31 December	**39**	38
Total intangible assets	**43**	51

(1) The prior year balances are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9 and below.

Intangible oil and gas assets

Intangible oil and gas assets represent expenditure directly associated with evaluation or appraisal activities related to Block PM304 in Malaysia.

Other intangible assets

Other intangible assets mainly comprised customer contracts and digital systems. Such intangible assets are amortised over their estimated economic useful life on a straight-line basis and the related amortisation charges included in cost of sales and selling, general and administration expense line items of the consolidated income statement (note 5a and 5b). The additions of US$7m (2020 restated: US$9m) related to investment in the development and implementation of Group-wide digital systems.

Prior year restatement

In April 2021, IFRIC published an agenda decision on the clarification of accounting in relation to the configuration and customisation costs incurred in implementing SaaS. Due to the nature of this agenda decision and the level of spend incurred by the Group on such an implementation, the Group's accounting policy in relation to such customisation and configuration costs has been reviewed and changed to align with the IFRIC guidance issued in relation to SaaS costs previously capitalised (note 2.3). The Group has assessed the impact of this change in accounting policy on any cloud computing arrangements entered into during prior years and restated the comparative figures shown above. The Group identified US$14m additions incurred in the year ended 31 December 2020 and US$16m cumulatively as at 31 December 2019, in relation to software and development costs that should be expensed after the consideration of the IFRIC guidance. Further details are disclosed in note 2.9.

16 Investments in associates and joint ventures

	Associates US$m	Joint ventures US$m	Total US$m
As at 1 January 2020	25	13	38
Loans made to joint ventures	–	2	2
Share of net profit/(loss)	6	(1)	5
Dividends received	(10)	–	(10)
As at 1 January 2021	21	14	35
Share of net profit/(loss)	8	(1)	7
Dividends received	(8)	–	(8)
As at 31 December 2021	**21**	**13**	**34**

Dividends received during the year include US$7m received from PetroFirst Infrastructure Limited and US$1m received from PetroFirst Infrastructure 2 Limited (2020: US$8m received from PetroFirst Infrastructure Limited and US$2m received from PetroFirst Infrastructure 2 Limited).

Investment in associates

	2021 US$m	2020 US$m
PetroFirst Infrastructure Limited	**20**	18
PetroFirst Infrastructure 2 Limited	**1**	3
	21	21

Interest in associates

Summarised financial information on associates, based on their IFRS financial statements, and a reconciliation with the carrying amount of the investment in associates in the consolidated balance sheet, are set out below:

	2021 US$m	2020 US$m
Revenue	**77**	75
Cost of sales	**(33)**	(35)
Gross profit	**44**	40
Net finance expense	**(2)**	(5)
Profit before tax	**42**	35
Income tax	**(1)**	–
Net profit	**41**	35
Group's share of net profit for the year	**8**	6
Non-current assets	**137**	157
Current assets	**22**	13
Total assets	**159**	170
Non-current liabilities	**26**	29
Current liabilities	**19**	21
Total liabilities	**45**	50
Net assets	**114**	120
Group's share of net assets	**21**	21
Carrying amount of the investment in associates	**21**	21

A list of all associates is disclosed in note 34.

No associates had contingent liabilities or capital commitments as at 31 December 2021 and 2020.

Investment in joint ventures

	2021 US$m	2020 US$m
Takatuf Petrofac Oman LLC	**12**	13
Socar – Petrofac LLC	**1**	1
	13	14

Interest in joint ventures

Summarised financial information on the joint ventures, based on their IFRS financial statements, and a reconciliation with the carrying amount of the investment in joint ventures in the consolidated balance sheet, are set out below:

	2021 US$m	2020 US$m
Revenue	**37**	16
Cost of sales	**(35)**	(16)
Gross profit	**2**	–
Selling, general and administration expenses	**(4)**	(2)
Loss before tax and net loss	**(2)**	(2)
Group's share of net loss	**(1)**	(1)
Non-current assets	**27**	29
Current assets	**19**	15
Total assets	**46**	44
Non-current liabilities	**(3)**	(2)
Current liabilities	**(12)**	(8)
Total liabilities	**(15)**	(10)
Net assets	**31**	34
Group's share of net assets	**13**	14
Carrying amount of the investment in joint ventures	**13**	14

A list of all joint ventures is disclosed in note 34.

No joint ventures had contingent liabilities or capital commitments at 31 December 2021 and 2020. The joint ventures cannot distribute their distributable reserves until they obtain consent from the joint venture partners.

17 Other financial assets and other financial liabilities

Other financial assets	2021 US$m	2020 US$m
Non-current		
Receivable from joint operation partners for leases	**93**	80
Deferred consideration receivable from Ithaca Energy UK Ltd	**5**	48
Advances relating to decommissioning provision	**32**	28
Receivable from Shanghai Zhenhua Heavy Industries Co Ltd	**–**	5
Restricted cash	**79**	–
Contingent consideration arising from the disposal of Group's operations in Mexico	**–**	41
	209	202
Current		
Receivable from joint operation partners for leases	**34**	97
Deferred consideration receivable from Ithaca Energy UK Ltd	**49**	–
Contingent consideration arising from the disposal of Group's operations in Mexico	**36**	–
Receivable from Shanghai Zhenhua Heavy Industries Co Ltd	**5**	–
Restricted cash	**58**	44
Derivative contracts not designated as hedges (note 33)	**1**	3
Derivative contracts designated as cash flow hedges (note 33)	**–**	4
	183	148
Other financial liabilities		
Non-current		
Lease liabilities (note 29)	**190**	163
Contingent consideration payable arising from acquisition of W&W Energy Services Inc	**5**	3
	195	166
Current		
Lease liabilities (note 29)	**61**	150
Contingent consideration payable arising from acquisition of W&W Energy Services Inc	**2**	1
Interest payable	**9**	2
Derivative contracts not designated as hedges (note 33)	**5**	17
Derivative contracts designated as cash flow hedges (note 33)	**–**	9
Embedded derivative in respect of the revolving credit facility (note 26)	**4**	–
	81	179

Receivable from joint operation partners for leases

The current and non-current receivable from joint operation partners represented 70% of the lease liability in respect of oil and gas facilities, office building, vehicles and transport vessels in Malaysia except for the MOPU vessel, for which it represented 64.7% of the lease liability. These lease liabilities are recognised at 100% in the consolidated balance sheet. This treatment is necessary to reflect the legal position of the Group as the contracting counterparty for such leases. The Group's 30% share of this liability (and 35.3% for the liability relating to the MOPU vessel) at 31 December 2021 was US$59m (2020: US$76m). At 31 December 2021, management concluded that no expected credit loss allowance against the receivable from joint operation partners for leases was necessary, since under the joint operating agreement any default by the joint arrangement partners is fully recoverable through a recourse available to the non-defaulting partner through a transfer or an assignment of the defaulting partner's equity interest.

Deferred consideration receivable from Ithaca Energy UK Ltd

The deferred consideration receivable from Ithaca Energy UK Ltd relating to the disposal of Petrofac GSA Holdings Limited is measured at amortised cost using a discount rate of 8.4%. Unwinding of the discount on the deferred consideration of US$5m (2020: US$5m) was recognised during the year, within the finance income line item of the consolidated income statement. A decrease in the credit risk for this financial asset resulted in the reversal in the expected credit loss allowance of US$1m being recognised for the year (2020: charge of US$2m).

During the prior year, an early settlement was agreed with Ithaca Energy UK Ltd for amounts expected to mature in October 2020. Upon early settlement, the Group recognised a loss of US$6m, which was recognised as a separately disclosed item in the Integrated Energy Services operating segment (note 6) in that year.

	2021 US$m	2020 US$m
Opening balance (non-current and current)	**48**	64
Unwinding of discount	**5**	5
Expected credit loss reversal/(charge) (note 5e)	**1**	(2)
Loss on early settlement (note 6)	**–**	(6)
Receipts	**–**	(13)
As at the end of the reporting period	**54**	48

Subsequent to the year ended 31 December 2021, the Group collected US$11m of the deferred consideration from Ithaca Energy UK Ltd and also sold the remaining receivable, with a carrying value of US$43m. The consideration of US$11m received from Ithaca Energy UK Ltd was treated as an adjusting post balance sheet event in accordance with IAS 10 'Events After the Reporting Period' to adjust the effective interest rate and reclassify the consideration received as a current receivable, whilst the second transaction was treated as a non-adjusted post balance sheet event. Upon sale of the receivable, the Group will recognise a loss of US$3m in the Integrated Energy Services operating segment in the year ended 31 December 2022.

Advances relating to decommissioning provision

Advances relating to decommissioning provision represents advance payments to a regulator for future decommissioning liabilities, relating to the Group's assets in Malaysia. An advance of US$4m (2020: US$5m) made during the year was presented in the consolidated statement of cash flows as a cash outflow within investing activity.

Contingent consideration arising from the disposal of the Group's operations in Mexico

On 30 July 2018, the Group signed an SPA with Perenco to dispose of a 49% non-controlling interest in PNHBV. The disposal was completed on 18 October 2018 and represented a transaction between the equity holders under IFRS 10 'Consolidated Financial Statements'. The fair value of consideration received was recognised within equity as a non-controlling interest of US$266m.

The fair value of consideration included contingent consideration of US$36m (2020: US$41m). The contingent consideration was measured at fair value with any fair value gain or loss recognised in the consolidated income statement and was recognised as a current financial asset in the consolidated balance sheet. This was reclassified from non-current to current in the year as the consideration is now expected to be received during 2022.

At 31 December 2021, the fair value of contingent consideration receivable arising from the disposal of the Group's operations in Mexico was US$36m (2020: US$41m) following a fair value reduction of US$5m (2020: US$42m) which was recognised during the period (note 6). The downward fair value adjustment was as a result of reassessing the recoverable amount of contingent consideration due from the acquirer. The estimation of the fair value of the contingent consideration reflects management's expectations of (i) the final determination of the completion consideration amount; (ii) proceeds associated with a ruling by the Tax Administration Service in Mexico; and and (iii) achieving the contingent consideration criteria in the SPA associated with the migration of Magallanes and Arenque Production Enhancement Contracts to Production Sharing Contracts. To determine the fair value of the contingent consideration, management applied risk factors (a Level 3 measurement of the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement') to the maximum contingent consideration amounts receivable.

The table below provides a sensitivity analysis of possible changes to the risk factors selected (a Level 3 input in the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement') on the fair value of the contingent consideration:

	10% increase in risk factor US$m	**20% increase in risk factor US$m**
Risk factor associated with the determination of the completion CIEP consideration amount	**(5)**	**(10)**
Risk factor relating to proceeds associated with a ruling by the Tax Administration Service in Mexico	**(5)**	**(9)**
Total	**(10)**	**(19)**

During the prior year, an impairment charge of US$34m was recognised within the other operating expenses line item of the consolidated income statement such that the carrying amount of the net assets did not exceed the fair value less cost of disposal.

A reconciliation of the fair value movement of contingent consideration arising from the disposal of the Group's operations in Mexico is presented below:

	2021 US$m	2020 US$m
Opening balance	**41**	42
Initial recognition on disposal of remaining 51% interest in Group's operations in Mexico	**–**	41
Fair value loss (note 6)	**(5)**	(42)
As at the end of the reporting period	**36**	41

17 Other financial assets and other financial liabilities continued

Pánuco contingent consideration

A reconciliation of the fair value movement of the Pánuco contingent consideration is presented below:

	2021 US$m	2020 US$m
Opening balance	–	8
Fair value loss (note 6)	–	(8)
As at the end of the reporting period	–	–

Restricted cash

The Group had outstanding letters of guarantee, including performance, advance payments and bid bonds against which the Group had pledged or restricted cash balances.

Contingent consideration receivable from Ithaca Energy UK Ltd

A reconciliation of the fair value movement of contingent consideration arising from the disposal of Petrofac GSA Holdings Limited is presented below:

	2021 US$m	2020 US$m
Opening balance	–	9
Fair value loss (note 6)	–	(9)
As at the end of the reporting period	–	–

Contingent consideration payable arising from acquisition of W&W Energy Services Inc

A reconciliation of the fair value movement of contingent consideration payable arising from acquisition of W&W Energy Services Inc is presented below:

	2021 US$m	2020 US$m
Opening balance	4	15
Fair value loss/(gain) (note 6)	3	(8)
Payments	–	(3)
As at the end of the reporting period	7	4

During 2021, management reviewed the carrying amount of the contingent consideration payable associated with the acquisition of W&W Energy Services Inc, following a change to the contingent consideration pay-out terms during the year. This resulted in a negative fair value adjustment (i.e. loss) of US$3m, which was recognised as a separately disclosed item (note 6) in the Asset Solutions operating segment (2020: gain of US$8m). At the end of the year, the fair value of contingent consideration payable was calculated using the expected value pay-out approach using a discount rate of 15.2% (Level 3 of the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement'). The fair value represented management's best estimate based on the expected financial performance targets that will be achieved by W&W, over the remaining evaluation period i.e. 2022 and 2023. A 10% reduction in performance targets would result in an additional fair value gain of US$0.7m.

Changes in liabilities arising from financing activities

Year ended 31 December 2021

	1 January 2021 US$m	Cash inflows US$m	Cash outflows US$m	Additions US$m	Cash outflows paid by joint operation partners US$m	Others[2] US$m	31 December 2021 US$m
Senior secured notes	–	580	–	–	–	–	580
Other interest-bearing loans and borrowings[1]	755	904	(1,470)	–	–	(5)	184
Lease liabilities	313	-	(40)	35	(59)	2	251
At 31 December 2021	1,068	1,484	(1,510)	35	(59)	(3)	1,015

Year ended 31 December 2020

	1 January 2020 US$m	Cash inflows US$m	Cash outflows US$m	Additions US$m	Cash outflows paid by joint operation partners US$m	Others[2] US$m	31 December 2020 US$m
Other interest-bearing loans and borrowings[1]	900	870	(1,015)	–	–	–	755
Lease liabilities	438	–	(50)	5	(82)	2	313
At 31 December 2020	1,338	870	(1,065)	5	(82)	2	1,068

(1) Other interest-bearing loans and borrowings excludes overdrafts since these are included within cash and equivalents.
(2) Represents the movement in debt acquisition costs for senior notes and other interest-bearing loans and borrowings.

Fair value measurement

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1: Unadjusted quoted prices in active markets for identical financial assets or liabilities
Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices)
Level 3: Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

Set out below is a comparison of the carrying amounts and fair values of financial instruments as at 31 December:

	Level	Carrying amount		Fair value	
		2021 US$m	2020 US$m	**2021 US$m**	2020 US$m
Financial assets					
Measured at amortised cost					
Restricted cash	Level 2	**137**	44	**137**	44
Receivable from joint operation partners for leases	Level 2	**127**	177	**127**	177
Deferred consideration receivable from Ithaca Energy UK Ltd	Level 2	**54**	48	**54**	48
Receivable from Shanghai Zhenhua Heavy Industries Co Ltd	Level 2	**5**	5	**5**	5
Advances relating to provision for decommissioning liability	Level 2	**32**	28	**32**	28
Measured at fair value through profit and loss					
Contingent consideration arising from the disposal of the Group's operations in Mexico	Level 3	**36**	41	**36**	41
Contingent consideration arising from the disposal of the JSD6000 installation vessel	Level 3	**55**	55	**55**	55
Derivative contracts – undesignated	Level 2	**1**	3	**1**	3
Designated as cash flow hedges					
Derivative contracts	Level 2	**–**	4	**–**	4
Financial liabilities					
Measured at amortised cost					
Senior secured notes (note 26)	Level 1	**580**	–	**595**	–
Term loans	Level 2	**99**	250	**99**	250
Revolving credit facility	Level 2	**85**	505	**85**	505
Bank overdrafts	Level 2	**–**	45	**–**	45
Interest payable	Level 2	**9**	2	**9**	2
Measured at fair value through profit and loss					
Contingent consideration payable	Level 3	**7**	4	**7**	4
Derivative contracts – undesignated	Level 2	**5**	17	**5**	17
Embedded derivative in respect of the revolving credit facility	Level 3	**4**	–	**4**	–
Designated as cash flow hedges					
Derivative contracts	Level 2	**–**	9	**–**	9

When the fair values of financial assets and financial liabilities recognised in the consolidated balance sheet cannot be measured based on quoted prices in active markets, their fair value is measured using valuation techniques, including discounted cash flow models. The inputs to these models are taken from observable sources where possible, but where such information is not available, a degree of judgement is required in establishing fair values. Judgements include considerations of inputs such as liquidity risk, credit risk and volatility. Changes in assumptions relating to these factors could affect the recognised fair value of financial instruments and are discussed further below.

- The fair value of the contingent consideration arising from the disposal of the Group's operations in Mexico at 31 December 2021 amounted to US$36m. The estimation of the fair value of the contingent consideration reflected management's expectation of (i) the final determination of the completion consideration amount; (ii) proceeds associated with a ruling by the Tax Administration Service in Mexico; and (iii) achieving the contingent consideration criteria in the SPA associated with the migration of Magallanes and Arenque Production Enhancement Contracts to Production Sharing Contracts. Management applied risk factors (a Level 3 measurement of the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement') to the maximum contingent consideration amounts receivable to estimate the fair value of the contingent consideration.

17 Other financial assets and other financial liabilities continued

The following methods and assumptions were used to estimate the fair values for material financial instruments:

- The fair value of deferred consideration receivable from Ithaca Energy UK Ltd is equivalent to its amortised cost determined as the present value of discounted future cash flows using the discount rate of 8.4%.
- The fair value of long-term interest-bearing loans and borrowings (excluding senior secured notes) and receivable from joint operation partners for leases are equivalent to their amortised costs determined as the present value of discounted future cash flows using the effective interest rate.
- The contingent consideration payable of US$7m arising from acquisition of W&W Energy Services Inc, calculated using expected value pay-out approach using a discount rate of 15.2% (Level 3 of the ‘fair value hierarchy’ contained within IFRS 13 ‘Fair Value Measurement’), represented management’s best estimate based on the expected financial performance targets that will be achieved by W&W, over the remaining evaluation period.

18 Inventories

	2021 US$m	2020 US$m
Project materials	**16**	4
Crude oil	**6**	3
Stores and raw materials	**1**	1
	23	8

Project materials of US$nil were written off during the year (2020: US$5m, relating to the Engineering & Construction operating segment) within cost of sales in the consolidated income statement. Inventories expensed of US$46m (2020: US$47m) were included within cost of sales in the consolidated income statement.

19 Trade and other receivables

	2021 US$m	2020 US$m
Trade receivables	**405**	550
Advances to vendors and subcontractors	**147**	197
Prepayments and deposits	**21**	32
Receivables from joint operation partners	**47**	44
Related party receivables (note 31)	**1**	1
Other receivables	**47**	53
	668	877

The decrease in trade receivables is mainly due to a net collection of US$102m from three customers in the Engineering & Construction operating segment. At 31 December 2021, the Group had an ECL allowance of US$23m (2020: US$24m) against an outstanding trade receivable balance of US$428m (2020: US$574m).

Trade receivables are non-interest bearing and credit terms are generally granted to customers on 30-60 days' basis.
Trade receivables are reported net of ECL allowance in accordance with IFRS 9 ‘Financial Instruments’.

The movement in the ECL allowance during 2021 and 2020 against trade receivables was as follows:

	2021 US$m	2020 US$m
At 1 January	**24**	26
Reversal of ECL allowance (note 5e)	**(1)**	–
Write-off	**–**	(2)
At 31 December	**23**	24

At 31 December 2021, the analysis of trade receivables is as follows:

	Number of days past due						
	< 30 days US$m	31 – 60 days US$m	61 – 90 days US$m	91 – 120 days US$m	121 – 360 days US$m	> 360 days US$m	Total US$m
ECL rate	**0.9%**	**0.7%**	**0.5%**	**3.1%**	**19.5%**	**74.5%**	
Gross trade receivables	**297**	**42**	**16**	**26**	**29**	**18**	**428**
Less: ECL allowance	**(3)**	**–**	**–**	**(1)**	**(6)**	**(13)**	**(23)**
Net trade receivables at 31 December 2021	**294**	**42**	**16**	**25**	**23**	**5**	**405**

At 31 December 2020, the analysis of trade receivables is as follows:

	Number of days past due						
	< 30 days US$m	31 – 60 days US$m	61 – 90 days US$m	91 – 120 days US$m	121 – 360 days US$m	> 360 days US$m	Total US$m
ECL rate	0.1%	0.2%	0.1%	1.4%	13.8%	92.1%	
Gross trade receivables	372	92	48	15	26	21	574
Less: ECL allowance	–	–	–	–	(4)	(20)	(24)
Net trade receivables at 31 December 2020	372	92	48	15	22	1	550

Advances provided to vendors and subcontractors represent payments made to certain vendors and subcontractors for projects in progress, that will be adjusted against the future progress billings by the vendors and subcontractors. The decrease in advances provided to vendors and subcontractors of US$50m was mainly due to settlement of advances and accrued contract expenses in the ordinary course of business with subcontractors in the Engineering & Construction operating segment.

Receivables from joint operation partners are recoverable amounts from partners on Block PM304 and on consortium contracts in the Engineering & Construction operating segment. An ECL allowance of US$1m (note 5e) was recognised in respect of receivables from joint operations partners (2020: US$nil).

Other receivables mainly consist of Value Added Tax recoverable of US$30m (2020: US$35m).

An ECL allowance of US$nil (note 5e) was recognised against other receivables (2020: ECL charge of US$2m)

All trade and other receivables except 'advances provided to vendors and subcontractors' are expected to be settled in cash. Certain trade and other receivables will be settled in cash using currencies other than the reporting currency of the Group, and will be largely paid in sterling, euros and Kuwaiti dinars.

20 Contract assets and contract liabilities

a. Contract assets

	2021 US$m	2020 US$m
Work in progress	**1,325**	1,414
Retention receivables	**211**	215
Accrued income	**44**	23
	1,580	1,652

At 31 December 2021, work in progress included assessed variation orders pending customer approval of US$337m (2020: US$276m).

b. Contract liabilities

	2021 US$m	2020 US$m
Billings in excess of costs and estimated earnings	**40**	74
Advances received from customers	**18**	46
	58	120

At 31 December 2021, billings in excess of costs and estimated earnings included an offset for assessed variation orders pending customer approval of US$1m (2020: US$29m).

Revenue of US$102m (2020: US$202m) was recognised during the year from amounts included in contract liabilities at the beginning of the year.

c. Expected credit loss allowance on contract assets

The below table provides information on ECL allowance for each contract asset category at the end of reporting periods:

As at 31 December 2021

	Work in progress US$m	Retention receivables US$m	Accrued income US$m	**Total current contract assets US$m**
ECL rate	0.3%	7.2%	4.3%	**n/a**
Gross carrying amount	1,330	227	46	**1,603**
Less: ECL allowance	(5)	(16)	(2)	**(23)**
Net contract assets at 31 December 2021	1,325	211	44	**1,580**

As at 31 December 2020

	Work in progress US$m	Retention receivables US$m	Accrued income US$m	Total current contract assets US$m
ECL rate	0.6%	14.1%	12.3%	n/a
Gross carrying amount	1,423	250	26	1,699
Less: ECL allowance	(9)	(35)	(3)	(47)
Net contract assets at 31 December 2020	1,414	215	23	1,652

The movement in ECL allowance during 2021 and 2020 against each contract asset category is as follows:

Year ended 31 December 2021

	Work in progress US$m	Retention receivables US$m	Accrued income US$m	Total current contract assets US$m
At 1 January 2020	6	33	5	44
Charge for the year (note 5e)	3	2	–	5
Write-off	–	–	(2)	(2)
At 1 January 2021	9	35	3	47
Reversal of ECL provision (note 5e)	(4)	(19)	(1)	(24)
At 31 December 2021	**5**	**16**	**2**	**23**

The reversal of the ECL provision in respect of retention receivables in the year is predominantly attributable to one customer which had been assessed as impaired in prior years. The ECL provision was reassessed following the collection of certain overdue balances during the year.

d. Contract balances arising from contracts with customers

The Group's contract balances at 31 December are as follows:

	2021 US$m	2020 US$m
Trade receivables (note 19)	**405**	550
Contract assets	**1,580**	1,652
Contract liabilities	**58**	120

Trade receivables are non-interest bearing and credit terms are generally between 30 and 60 days. Trade receivables represent the Group's right to consideration that is unconditional (i.e. only the passage of time is required before payment of the consideration is due).

The Group recognised a write-back in ECL allowance on trade receivables and contract assets arising from contracts with customers, included within the expected credit loss allowance line item of the consolidated income statement, amounting to US$25m for the year ended 31 December 2021 (2020: charge of US$5m).

Revenue recognised during the year from performance obligations satisfied in previous years, resulting from a change in transaction price, amounted to US$168m (2020: US$118m).

21 Cash and short-term deposits

	2021 US$m	2020 US$m
Cash at bank and in hand	**498**	556
Short-term deposits	**123**	129
ECL allowance	**(1)**	(1)
Cash and short-term deposits	**620**	684

Short-term deposits are made for varying periods of between one day and three months depending on the immediate cash requirements of the Group and earn interest at respective short-term deposit rates. The fair value of cash and bank balances is US$620m (2020: US$684m).

For the purposes of the consolidated statement of cash flows, cash and cash equivalents comprise the following:

	2021 US$m	2020 US$m
Cash and short-term deposits	**620**	684
Bank overdrafts (note 26)	**–**	(45)
	620	639

Cash and cash equivalents included amounts totalling US$37m (2020: US$43m) held by the Group undertakings in certain countries whose exchange controls significantly restrict or delay the remittance of these amounts to foreign jurisdictions. Cash and cash equivalents also included US$305m (2020: US$378m) in joint operation bank accounts which are generally available to meet the working capital requirements of those joint operations but which can only be made available to the Group for its general corporate use with the agreement of the joint operation partners.

22 Share capital

The share capital of the Company as at 31 December was as follows:

	Number of shares	Share capital US$m	Share premium US$m
At 1 January 2020 and 31 December 2020	345,912,747	7	4
Issue of shares from capital raise	173,906,085	3	247
At 31 December 2021	**519,818,832**	**10**	**251**

The number of shares refers to US$0.02 ordinary shares, which are issued and fully paid. In total, there are 750,000,000 ordinary shares of US$0.02 authorised.

All the allotted and issued shares, including those held by the Employee Benefit Trust, were fully paid. The share capital comprises only one class of ordinary shares. The ordinary shares carry a voting right and the right to a dividend.

On 26 October 2021, the Company announced a proposed issuance of equity by way of a Firm Placing, Placing and Open Offer (together, the 'capital raise') to raise US$275m. The basis of the Open Offer was one new ordinary share for every four existing ordinary shares. On completion of the capital raise on 15 November 2021, the Company issued 173,597,412 ordinary shares, including a Firm Placing of 87,119,226 ordinary shares and a Placing and Open Offer of 86,478,186 ordinary shares. All of the above shares were issued at £1.15 per share, generating gross proceeds of approximately £200m (US$268m) before issue and associated costs of US$18m.

Concurrently with the capital raise, the Directors (other than Mr Asfari) subscribed for 308,673 additional shares at the issue price of £1.15. This resulted in a total number of new shares of 173,906,085 that were admitted to the premium listing segment of the Official List of the FCA and to trading on the main market for listed securities of the London Stock Exchange on 15 November 2021.

All new shares issued by way of the capital raise were each issued, fully paid and rank pari passu in all respects with each other and the ordinary shares of the Company in issue prior to the capital raise, including the right to receive all dividends and other distributions declared, made or paid after the date of issue.

Share premium: The balance on the share premium account represents the amount received in excess of the nominal value of the ordinary shares adjusted for any associated issuance costs.

Capital redemption reserve: The balance on the capital redemption reserve represents the aggregated nominal value of the ordinary shares repurchased and cancelled.

23 Employee Benefit Trust (EBT) shares

The Petrofac Employee Benefit Trust (the 'Trust') was established to facilitate the Group's discretionary share scheme awards made to the employees of the Group. For the purpose of making awards under the Group's share-based payment plans, shares in the Company are purchased and held by the Trust. The Trust issues these shares to the Group employees subject to the satisfaction of any service and performance conditions of each scheme. The Trust is consolidated in the Group's consolidated financial statements in accordance with IFRS 10 'Consolidated Financial Statements'.

These shares have been classified in the consolidated balance sheet as EBT shares within equity. Shares vested during the year are satisfied with these shares.

The movements in total EBT shares are shown below:

	2021		2020	
	Number	**US$m**	Number	US$m
At 1 January	**8,703,208**	**88**	10,055,467	110
Purchase of Company's shares by EBT(1)	**1,206,470**	**2**	3,973,332	11
Issue of Company's shares by EBT	**(4,677,573)**	**(21)**	(5,325,591)	(33)
At 31 December	**5,232,105**	**69**	8,703,208	88

(1) All shares purchased via the Open Offer (note 22).

Shares vested during the year include dividend shares of 278,089 shares (2020: 509,329 shares).

24 Share-based payment plans

Performance Share Plan (PSP)

Under the PSP, share awards are granted to Executive Directors and a restricted number of other senior executives of the Group. The shares vest at the end of three years, subject to continued employment and the achievement of certain pre-defined and independent market and non-market-based performance conditions. The market performance-based element of PSP awards is 50% (2020: 70%) dependent on the TSR of the Group compared with an index composed of selected relevant companies. The fair value of the shares vesting under this portion of the award is determined by an independent valuer using a Monte Carlo simulation model taking into account the terms and conditions of the plan rules and using the following assumptions at the date of grant:

	Executive Directors 2021 awards(1)	**Other participants 2021 awards**	Executive Directors 2020 awards	Other participants 2020 awards	All participants 2019 awards	All participants 2018 awards
Expected share price volatility (based on median of comparator group's three-year volatilities)	**69.9%/71.2%**	**71.2%**	51.4%	51.4%	36.2%	37.7%
Share price correlation with comparator group	**31.8%/31.3%**	**31.3%**	13.5%	13.5%	15.8%	22.3%
Risk-free interest rate	**0.2%**	**0.2%**	0.2%	0.2%	0.9%	0.9%
Expected life of share award	**3 years**	**3 years**	3 years	3 years	3 years	3 years
Fair value of TSR portion	**46.7p/58.7p**	**78.5p**	145p	168p	264p	356p

(1) There were two separate grants in 2021.

The non-market-based condition governing the vesting of the remaining 50% (2020: 30%) of the PSP awards is subject to achieving certain strategic targets, including Engineering & Construction operating segment net margin, new order intake, return on capital employed, cash conversion, etc. over a three-year period. The fair value of the equity-settled award relating to the non-market-based condition is estimated, based on the quoted closing market price of the Company's ordinary shares at the date of grant with an assumed annual vesting rate built into the calculation over the three-year vesting period of the plan and the estimated vesting rate for the achievement of strategic targets.

Deferred Bonus Share Plan (DBSP)

Under the DBSP, selected employees are required to defer a proportion of their annual cash bonus into Company shares ('Invested Shares'). Following such an award, the Company will generally grant the participant an additional award of shares ('Matching Shares') bearing a specified ratio to the number of Invested Shares, typically a 1:1 ratio. Subject to a participant's continued employment, Invested and Matching Share awards vest one-third on the first anniversary of the grant, one-third on the second anniversary and the final proportion on the third anniversary of the grant date.

At the end of the reporting period, the value of bonuses to be settled by shares cannot be determined until the Remuneration Committee has approved the portion of the employee bonuses to be settled in shares. Once the portion of the bonus to be settled in shares is determined, the final bonus liability to be settled in shares is transferred to the share-based payments reserve. The costs relating to Matching Shares are recognised over the corresponding vesting period and the fair values of the equity-settled Matching Shares granted to employees is based on the quoted closing market price at the date of grant with the charge to the consolidated income statement adjusted to reflect the expected vesting rate of the plan.

Share Incentive Plan (SIP)

All UK employees, including UK Executive Directors, are eligible to participate in the SIP. Employees may invest up to £1,800 per tax year of gross salary (or, if lower, 10% of salary) to purchase ordinary shares in the Company. There is no holding period for these shares.

Restricted Share Plan (RSP)

Selected employees are allocated grants of shares on an ad hoc basis. The RSP is primarily, but not exclusively, used to make awards to individuals who join the Group part way through the year, having left accrued benefits with a previous employer. The fair values of the awards granted under the RSP at various grant dates during the year are based on the quoted market price at the date of grant adjusted for an assumed vesting rate over the relevant vesting period.

24 Share-based payment plans continued

Share-based payment plans information

The details of the fair values and assumed vesting rates of the share-based payment plans are below:

	PSP (non-market based condition)				DBSP		RSP	
	Executive Directors		Other participants					
	Fair value per share	Assumed vesting rate	Fair value per share	Assumed vesting rate	Fair value per share	Assumed vesting rate	Fair value per share	Assumed vesting rate
2021 awards	**101p/116p**	**45.2%**	**134p**	**45.2%**	**–**	**–**	**128p**	**95.0%**
2020 awards	250p	31.5%	271p	31.5%	271p	90.3%	126p	90.3%
2019 awards	364p	20.0%	455p	20.0%	455p	85.7%	394p	85.7%
2018 awards	412p	50.0%	515p	50.0%	466p	81.5%	560p	81.5%

The following table shows the movements in the number of shares held under the share-based payment plans outstanding but not exercisable:

	PSP		DBSP		RSP		Total	
	2021 Number	2020 Number	**2021 Number(1)**	2020 Number(1)	**2021 Number**	2020 Number	**2021 Number**	2020 Number
Outstanding at 1 January	**4,640,163**	3,906,880	**4,967,652**	7,289,952	**2,479,550**	1,725,387	**12,087,365**	12,922,219
Granted during the year	**5,190,614**	2,656,318	**–**	2,292,388	**1,057,472**	1,588,645	**6,248,086**	6,537,351
New share issue(2)	**399,569**	–	**101,392**	–	**42,027**	–	**542,988**	–
Vested during the year	**(272,975)**	(160,305)	**(2,956,599)**	(3,994,631)	**(1,169,910)**	(661,331)	**(4,399,484)**	(4,816,267)
Forfeited during the year	**(2,675,172)**	(1,762,730)	**(303,821)**	(620,057)	**(91,883)**	(173,151)	**(3,070,876)**	(2,555,938)
Outstanding at 31 December	**7,282,199**	4,640,163	**1,808,624**	4,967,652	**2,317,256**	2,479,550	**11,408,079**	12,087,365

(1) Includes Invested and Matching Shares.

(2) Shares issued in the year to ensure that participants in the various employee share schemes were not adversely impacted by the capital raise.

The number of shares still outstanding but not exercisable at 31 December for each award is as follows:

	PSP		DBSP		RSP		Total	
	2021 Number	2020 Number	**2021 Number(1)**	2020 Number(1)	**2021 Number**	2020 Number	**2021 Number**	2020 Number
2021 awards	**4,686,841**	–	**–**	–	**966,625**	–	**5,653,466**	–
2020 awards	**1,535,864**	2,087,754	**1,049,737**	1,974,586	**1,061,661**	1,588,645	**3,647,262**	5,650,985
2019 awards	**1,059,494**	1,445,556	**758,887**	1,990,416	**288,970**	707,821	**2,107,351**	4,143,793
2018 awards	**–**	1,106,853	**–**	1,002,650	**–**	183,084	**–**	2,292,587
Total awards	**7,282,199**	4,640,163	**1,808,624**	4,967,652	**2,317,256**	2,479,550	**11,408,079**	12,087,365

(1) Includes Invested and Matching Shares.

The average share price of the Company's shares during 2021 was US$1.69, sterling equivalent of £1.23 (2020: US$2.54, sterling equivalent of £1.99).

The number of outstanding shares excludes the dividend shares shown below:

	PSP		DBSP		RSP		Total	
	2021 Number	2020 Number	**2021 Number(1)**	2020 Number(1)	**2021 Number**	2020 Number	**2021 Number**	2020 Number
Dividend shares outstanding at 31 December	**55,103**	186,316	**50,146**	261,178	**74,007**	22,792	**179,256**	470,286

(1) Includes Invested and Matching Shares.

The charge in respect of share-based payment plans recognised in the consolidated income statement is as follows:

	PSP		DBSP		RSP		Total	
	2021 US$m	2020 US$m	**2021 US$m(2)**	2020 US$m(2)	**2021 US$m**	2020 US$m	**2021 US$m**	2020 US$m
Share-based payment charge	**2**	4	**2**	7	**3**	4	**7**	15

(2) Represents the charge on Matching Shares only.

The Group recognised a share-based payment charge of US$7m (2020: US$15m) in the consolidated income statement relating to the employee share-based payment plans (note 5c) which was transferred to the share-based payments reserve together with US$nil of the accrued bonus liability for the year ended 31 December 2020 (2020: 2019 bonus of US$4m).

For further details on the above employee share-based payment plans, refer to pages 120, 121, 123, 124 and 126 of the Directors' remuneration report.

25 Other reserves

	Net unrealised gains/(losses) on derivatives US$m	Foreign currency translation US$m	Share-based payments reserve US$m	Total US$m
At 1 January 2020	11	(14)	87	84
Net changes in fair value of derivatives and financial assets designated as cash flow hedges	(15)	–	–	(15)
Foreign currency translation (restated)(1)	–	(18)	–	(18)
Foreign currency translation losses reclassified to the consolidated income statement	–	3	–	3
Issue of Company's shares by Employee Benefit Trust	–	–	(30)	(30)
Transfer to share-based payments reserve for Deferred Bonus Share Plan Invested Shares (note 24)	–	–	4	4
Credit to equity for share-based payments charge (note 24)	–	–	15	15
At 31 December 2020 (restated)(1)	(4)	(29)	76	43
Attributable to:				
Petrofac Limited shareholders (restated)(1)	(4)	(29)	76	43
Non-controlling interests	–	–	–	–
At 31 December 2020 (restated)(1)	(4)	(29)	76	43
At 1 January 2021	(4)	(29)	76	43
Net changes in fair value of derivatives and financial assets designated as cash flow hedges	1	–	–	1
Foreign currency translation	–	3	–	3
Foreign currency translation losses reclassified to the consolidated income statement	–	8	–	8
Issue of Company's shares by Employee Benefit Trust	–	–	(20)	(20)
Credit to equity for share-based payments charge (note 24)	–	–	7	7
At 31 December 2021	**(3)**	**(18)**	**63**	**42**
Attributable to:				
Petrofac Limited shareholders	(3)	(18)	63	42
Non-controlling interests	–	–	–	–
At 31 December 2021	**(3)**	**(18)**	**63**	**42**

(1) The prior year balances are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

Net unrealised gains/(losses) on derivatives

The portion of gains or losses on cash flow hedging instruments that are determined to be effective hedges is included within this reserve net of related deferred tax effects. During 2021 a fair value gain of US$1m (2020: fair value loss of US$15m) was recognised within equity. When the hedged transaction occurs or is no longer forecast to occur, the gain or loss is transferred from equity to the consolidated income statement. Net losses of US$692,000 (2020: US$130,000) relating to foreign currency forward contracts and financial instruments designated as cash flow hedges were recognised in cost of sales line item in the consolidated income statement.

The forward currency points element and ineffective portion of derivative financial instruments relating to forward currency contracts designated as cash flow hedges amounting to US$3m gain (2020: US$5m loss) were recognised in the cost of sales line item in the consolidated income statement.

Foreign currency translation reserve

The assets and liabilities of entities which have a non-United States dollar functional currency are translated into the Group's reporting currency, United States dollar, at the exchange rate prevailing at the end of the reporting period. The foreign currency differences arising on the translation are recognised in other reserves in equity.

25 Other reserves continued

Share-based payments reserve

The share-based payments reserve is used to recognise the value of equity-settled share-based payments awarded to employees and transfers out of this reserve are made upon vesting of the original share awards.

In the prior year, the transfer of US$4m into the share-based payments reserve reflected the transfer from accrued bonus liability within trade and other payables in the consolidated balance sheet which had been voluntarily elected or mandatorily obliged to be settled in shares as part of the Deferred Bonus Share Plan.

26 Interest-bearing loans and borrowings

	2021 US$m	2020 US$m
Non-current		
Senior secured notes	**580**	–
Revolving credit facility	**85**	–
Term loans	**99**	50
	764	50
Current		
Revolving credit facility	**–**	505
Term loans	**–**	200
Bank overdrafts	**–**	45
	–	750
Total interest-bearing loans and borrowings	**764**	800

In addition to the capital raise (note 22), a comprehensive refinancing was completed in October and November 2021 to extend Petrofac's debt maturities and to create a long-term capital structure.

The refinancing plan comprised the issuance of US$600m 9.75% senior secured notes (due 2026), a US$180m new revolving credit facility, a US$50m (denominated as AED185m) new bilateral facility and an amended existing US$50m bilateral loan facility. All facilities were for general corporate purposes.

The proceeds of the refinancing, in combination with the proceeds from the capital raise and available cash reserves, were used to repay some of the previous credit facilities during the year (including the Company issued £300m (US$ equivalent of US$405m as at 30 November 2021, when it was repaid) in commercial paper with a maturity of 12 months under the UK Government's COVID Corporate Financing Facility (CCFF), the previous revolving credit facility and one of the previous bilateral term loans) in addition to the penalties imposed by the Court in relation to the SFO investigation (note 6), which were settled in January and February 2022.

Details of the Group's interest-bearing loans and borrowings are as follows:

Senior secured notes

In November 2021, the Group issued US$600m of 9.75% senior secured notes, due November 2026. These are listed on The International Stock Exchange and were issued at a 0.97% discount to the nominal value, resulting in a total 10.0% yield to maturity for the purchasers of the notes. The notes were issued with a rating of BB- from both S&P and Fitch.

The interest coupon is payable semi-annually in arrears and the Company has a call option to redeem the notes with a first call date of November 2023, with a make-whole premium of 4.88%/2.44% of the remaining coupon from November 2023 and 2024 respectively.

Revolving credit facility

The Group has a US$180m committed revolving credit facility (2020: US$1,000m) with a syndicate of international banks, which is available for general corporate purposes. The facility is due to mature in October 2023 with options to extend(1). At 31 December 2021, US$95m was drawn under this facility (31 December 2020: US$505m). Interest is payable on the drawn balance of the facility and in addition, utilisation fees are payable depending on the level of utilisation.

The facility agreement provides for the Group to pay a certain proportion of any up-front fee incurred by the lender to facilitate any transfer of its commitment under the facility, to another lender. This has been classified as an embedded derivative on initial recognition and re-measured at fair value through profit or loss. The fair value on initial recognition in October 2021 was estimated at US$4m (Level 3 of the 'fair value hierarchy' contained within IFRS 13 'Fair Value Measurement') and there has been no change in fair value in the period to 31 December 2021.

Subsequent to the previous year-end, extended credit facilities of US$700m (RCF of US$610m and bilateral term facility of US$90m) were secured in April 2021 and these were drawn and subsequently repaid during the year.

(1) The option to extend the revolving credit facility, by an incremental six months to April 2024 and October 2024, is subject to the approval of lenders.

Term loans

At 31 December 2021, the Group had in place two bilateral term loans with a combined total of US$99m (2020: three bilateral term loans with a combined total of US$250m). At 31 December 2021, US$99m was drawn under these facilities, of which US$50m is scheduled to mature in October 2023 and US$49m in November 2023 (2020: US$250m, with US$50m maturing in February 2021, US$150m in March 2021 and US$50m in November 2023).

Bank overdrafts

Bank overdrafts are utilised to meet the Group's working capital requirements. These are repayable on demand.

Compliance with covenants

The revolving credit facility and the term loans (together, the 'Senior Loans') are subject to two financial covenants relating to leverage and interest cover. These covenants are tested at 30 June and 31 December (and additionally on any quarter end date falling on 31 March or 30 September on which the revolving credit facility is more than 33% drawn). The leverage financial covenant is defined as the ratio of net debt (including net leases but excluding cash over which there are exchange control restrictions), at the end of the reporting period to the previous 12 months' EBITDA. The interest cover financial covenant is defined as the ratio of the previous 12 months' EBITDA to the previous 12 months' net finance expense (excluding debt acquisition cost amortisation).

The Group was compliant with its covenants throughout the year. However, as noted in the going concern disclosure (note 2.5), the extended impact of COVID-19 resulted in a deterioration in EBITDA in Q4 2021 and due to the carryover effect of this result on the subsequent financial covenants (calculated on a rolling 12-month basis), Senior Loan lenders granted an amendment to both of the financial covenants for 2022 and thereafter. These amendments were as follows:

- Leverage financial covenant: shall not exceed a ratio of 4.5:1 throughout 2022, falling to 3.5:1 thereafter (previously 4.1:1 at 31 March 2022, if tested at this date and 3.5:1 thereafter).
- Interest cover financial covenant: shall not be less than a ratio of 1.75:1 at 31 March 2022, if tested at this date (previously 2.25:1), 1.50:1 at 30 June 2022 (previusly 2.25:1), 1.0:1 at 30 September 2022, if tested at this date (previously 2.0:1) and 1.75:1 thereafter (previously 2.25:1).

The Senior Loans are senior unsecured obligations of the Company and will rank equally in right of payment with each other and with the Company's other existing and future unsecured and unsubordinated indebtedness.

27 Provisions

Non-current provisions

	Other long-term employment benefits provision US$m	Provision for decommissioning US$m	Other provisions US$m	Total US$m
At 1 January 2020	131	40	18	189
Additions during the year	16	–	4	20
Paid during the year	(34)	–	(3)	(37)
Transfer to current provisions	–	–	(3)	(3)
Unwinding of discount	–	1	–	1
Exchange difference	–	–	1	1
At 1 January 2021	113	41	17	171
Additions during the year	9	8	1	18
Paid during the year	(39)	–	–	(39)
Transfer to current provisions	–	–	(8)	(8)
Unwinding of discount (note 7)	–	1	–	1
At 31 December 2021	**83**	**50**	**10**	**143**

Other long-term employment benefits provision

Labour laws in the Middle East require employers to provide for other long-term employment benefits. These benefits are payable to employees on being transferred to another jurisdiction or on cessation of employment based on their final salary and number of years' service. All amounts are unfunded. The long-term employment benefits provision is based on an independent specialist's valuation model, with the key underlying assumptions being as follows:

	Senior employees	Other employees
Average annual % salary increases	2%	2%
Discount factor	2%	2%

Discount factor used represents the yield on US high-quality corporate bonds, with a duration corresponding to that of the liability at the end of the reporting period. The weighted average duration of the long-term employment benefit obligations is five years (2020: five years).

27 Provisions continued

Provision for decommissioning

The decommissioning provision at the end of the reporting period relates to the Group's obligation for the removal of facilities and restoration of Block PM304 in Malaysia.

The liability is discounted at a rate of 1.3% on Block PM304 (2020: 3.7%).

The unwinding of the discount is recognised in the finance expense (note 7) line item of the consolidated income statement. The Group estimates that the cash outflows associated with this provision will take place in 2026.

Other provisions

The other provisions carrying amount at 31 December 2021 mainly represents technical insurance provisions and IBNR reserves of US$9m (2020: US$8m) in respect of the Group's captive insurance company, Jermyn Insurance Company Limited. As at 31 December 2020, other provisions included US$2m of disposal costs associated with the disposal of the JSD6000 installation vessel.

Current provisions

	Onerous contract provisions US$m	Other provisions US$m	Total US$m
At 1 January 2020	6	41	47
Amounts provided during the year	150	18	168
Transfer from non-current provisions	–	3	3
Utilised during the year	(118)	(26)	(144)
Translation difference	–	1	1
At 1 January 2021	38	37	75
Amounts provided during the year	62	6	68
Transfer from non-current provisions	–	8	8
Utilised during the year	(61)	(20)	(81)
At 31 December 2021	**39**	**31**	**70**

Onerous contract provisions

Where it is determined that the unavoidable costs under a contract exceed the economic benefits expected to be received under it, the Group recognises a provision to represent the lower of the expected future losses from fulfilling the contract and any compensation or penalties arising from a failure to fulfil it. The amount of US$62m provided during the year related to projects in the Engineering & Construction operating segment (2020: US$150m).

Other provisions

The other provisions carrying amount as at 31 December 2021 includes provisions for dilapidations costs, litigations against the Group and disposal costs associated with the disposal of the JSD6000 installation vessel. Of the US$6m provided during the year, US$1m (2020: US$2m) related to projects in the Asset Solutions operating segment and US$1m related to a VAT penalty provision in the Asset Solutions segment (2020: US$11m related to a VAT penalty provision in the Engineering & Construction operating segment).

28 Trade and other payables

	2021 US$m	2020 US$m
Trade payables	**561**	443
SFO court penalty (note 6)	**104**	–
Accrued expenses	**267**	293
Other taxes payable	**18**	20
Other payables	**140**	131
	1,090	887

The increase in trade payables of US$118m is mainly due to an increase of US$88m in the Engineering & Construction operating segment, primarily due to an equivalent reduction in accrued contract expenses.

Accrued expenses primarily represent contract cost accruals relating to the Engineering & Construction operating segment and the Asset Solutions operating segment.

Other payables mainly consist of retentions held against vendors and subcontractors of US$102m (2020: US$110m).

Certain trade and other payables will be settled in currencies other than the reporting currency of the Group, mainly in sterling, euros and Kuwaiti dinars.

29 Leases

The Group has lease contracts for various items of property, plant and equipment. The Group's obligations under its leases are secured by the lessor's title to the leased assets. Generally, the Group is restricted from assigning and subleasing the leased assets.

The Group also has certain leases of office buildings with lease terms of 12 months or less and leases of office equipment with low value. The Group applies the 'short-term lease' and 'lease of low-value assets' recognition exemptions for these leases.

a. Right-of-use assets

The Group recognises right-of-use assets, within the property, plant and equipment line item of the consolidated balance sheet, at the commencement date of the lease (i.e. the date at which the underlying asset is available for use). The carrying amounts of right-of-use assets recognised and the movements during the period are disclosed in note 12.

b. Lease liabilities

The table below provides details of lease liabilities recognised within the other financial liabilities line item of the consolidated balance sheet:

	2021 US$m	2020 US$m
Lease liabilities at 1 January	**313**	438
Additions	**35**	5
Interest	**7**	9
Principal payments made by the Group	**(40)**	(50)
Interest paid by the Group	**(5)**	(9)
Principal payments made by joint operation partners	**(59)**	(82)
Derecognised	**–**	(1)
Translation difference	**–**	3
At 31 December	**251**	313

The above lease liabilities included US$186m (2020: US$253m) of lease liabilities relating to Block PM304 in Malaysia that are presented at 100%, which is necessary to reflect the legal position of the Group as the contracting entity for these leases. The leases relating to Block PM304 in Malaysia associated with oil and gas facilities include a renewal option of up to two years and a purchase option at the end of the lease term.

c. Amounts recognised in the consolidated income statement in respect of leases

	2021 US$m	2020 US$m
Depreciation charge in respect of right-of-use assets (note 12)	**19**	26
Finance expense recognised associated with lease liabilities (note 7)	**7**	9
Lease expense recognised for short-term leases and leases for low-value assets	**4**	8

d. Future lease payments

Set out below are the future lease payments in respect of leases for property, plant and equipment. These have remaining non-cancellable lease terms of between one and eight years. The discounted and undiscounted future minimum lease commitments as at 31 December 2021 are as follows:

	Present value US$m	**Finance expense US$m**	**Future minimum lease payments US$m**
The commitments are as follows:			
Within one year	**61**	**13**	**74**
After one year but not more than five years	**188**	**19**	**207**
More than five years	**2**	**–**	**2**
	251	**32**	**283**

In April 2021, a lease in respect of a MOPU vessel that was due to expire on 30 April 2021 relating to Block PM304 in Malaysia was extended to 30 September 2026 (notes 13 and 21 of the Company financial statements).

The discounted and undiscounted future minimum lease commitments as at 31 December 2020 are as follows:

	Present value US$m	Finance expense US$m	Future minimum lease payments US$m
The commitments are as follows:			
Within one year	150	14	164
After one year but not more than five years	142	21	163
More than five years	21	3	24
	313	38	351

30 Commitments and contingent liabilities

Commitments

In the normal course of business, the Group obtains surety bonds, letters of credit and guarantees, which are contractually required to secure performance, advance payment or in lieu of retentions being withheld. Some of these facilities are secured by issue of corporate guarantees by the Company and its subsidiaries in favour of the issuing banks.

At 31 December 2021, the Group had outstanding letters of credit, letters of guarantee, including performance, advance payments and bid bonds of US$3,194m (2020: US$3,543m) against which the Group had pledged or restricted cash balances of US$137m (2020: US$44m).

At 31 December 2021, the Group had outstanding forward exchange contracts amounting to US$849m (2020: US$1,910m). These commitments consist of future gross obligations either to acquire or to sell designated amounts of foreign currency at agreed rates and value dates (note 33).

Capital commitments

At 31 December 2021, the Group had capital commitments of US$12m (2020 restated[1]: US$8m) excluding lease commitments (note 29):

	2021 US$m	2020 (restated)[1] US$m
Block PM304 in Malaysia	**11**	3
Commitments in respect of development of the Group's digital systems and other information technology equipment	**1**	5
	12	8

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

Contingent liabilities

A Group subsidiary is subject to challenges by HMRC on the historical application of National Insurance Contributions (NICs) to workers in the UK Continental Shelf. In October 2020, a decision was issued by HMRC against Petrofac Facilities Management Limited (PFML) in respect of the historic application of NICs. PFML has appealed against the decision and no payment has been made to HMRC pending the outcome of the First-tier Tribunal (Tax). Management, taking into consideration advice from independent legal and tax specialists, believes that it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and accordingly, no provision has been recognised. The maximum potential exposure to PFML in relation to NICs and interest should it be unsuccessful in defending its position is approximately £127m, equivalent to US$172m.

The Group also has a recourse available, in accordance with the contractual indemnity contained in some customer contracts, where it can possibly recover a portion of NICs and interest from its customers in the event the Group is unsuccessful in its appeal. The possible recoverability of the amounts receivable from the customers, should the Group be unsuccessful in defending its position, may be subject to further negotiations with the customers. The Group is in the process of estimating the possible recoverable amount if it is unsuccessful in defending its position.

31 Related party transactions

The consolidated financial statements include the financial statements of Petrofac Limited and the subsidiaries listed in note 34. Petrofac Limited is the ultimate parent entity of the Group.

The following table provides the total amount of transactions entered with related parties:

Related party receivables	2021 US$m	2020 US$m
Joint ventures	**1**	–
Associates	**–**	1
	1	1

All sales to and purchases from related parties are conducted on an arm's length basis and are approved by the operating segment's management. All related party balances will be settled in cash.

In May 2017, the Board of Directors approved a donation of up to US$5m over the course of five years to the American University of Beirut (AUB) to establish the Petrofac Fund for Engineers endowment fund, which will provide scholarships and internships to engineering students in memory of Mr Maroun Semaan, Petrofac's co-founder and AUB alumnus, who was also a significant personal benefactor to AUB.

However, in response to the the COVID-19 pandemic and the change in economic circumstances, it has been agreed that the Group will pay for up to 100 Group employees to attend an AUB full-time course instead of making future donations for engineering scholarships. As part of its new commitment, the Group will pay the cost of the course to AUB and an educational stipend to all attendees. For the year ended 31 December 2021, US$0.4m was paid to the AUB (2020: US$nil). One of the Group's Non-executive Directors who is also a significant shareholder of the Company is a trustee of the AUB.

Compensation of key management personnel

The following details remuneration of key management personnel of the Group, comprising Executive and Non-executive Directors of the Company and other senior personnel. Further information relating to individual Directors of the Company is provided in the Directors' remuneration report on pages 116 to 127.

	2021 US$m	2020 US$m
Short-term employee benefits	**8**	8
Share-based payments charge	**3**	5
Fees paid to Non-executive Directors	**1**	1
	12	14

32 Accrued contract expenses

Accrued contract expenses represent contract cost accruals associated with the Group's fixed-price engineering, procurement and construction contracts. This is typically in respect of vendors and subcontractors for these projects, whereas similar costs in respect of the Group's other projects (such as cost reimbursable projects, predominantly in Asset Solutions) are classified as accrued expenses within trade and other payables (note 28). The decrease in accrued contract expenses of US$354m was mainly due to higher payment milestones relating to vendors and subcontractors achieved during the year in the Engineering & Construction operating segment and overall lower volumes.

33 Risk management and financial instruments

Risk management objectives and policies

The Group's principal financial assets and liabilities, other than derivatives, comprise trade and other receivables, other financial assets, cash and short-term deposits, interest-bearing loans and borrowings, trade and other payables and other financial liabilities.

The Group's activities expose it to various financial risks particularly associated with interest rate risk on its variable rate cash and short-term deposits, interest-bearing loans and borrowings and foreign currency risk on conducting business in currencies other than the functional currency, as well as translation of the assets and liabilities of foreign operations to the reporting currency. These risks are managed from time to time by using a combination of various derivative instruments, principally forward currency contracts in accordance with the Group's hedging policies. The Group has a policy not to enter into speculative trading of financial derivatives.

The Board of Directors of the Company has established an Audit Committee which performs, amongst other roles, reviews on the effectiveness of the risk management and internal control systems to mitigate a range of risks, including financial risks, faced by the Group, which is discussed in detail on page 109.

The other main risks besides interest rate and foreign currency risk arising from the Group's financial instruments are credit risk, liquidity risk and commodity price risk; the policies relating to these risks are discussed in detail below:

Interest rate risk

Interest rate risk arises from the possibility that changes in interest rates will affect the value of the Group's interest-bearing financial liabilities and assets.

The Group's exposure to market risk arising from changes in interest rates relates primarily to the Group's long-term variable rate debt obligations and its cash and short-term deposits. The Group's policy is to manage its interest cost using a mix of fixed and variable rate debt. The Group's cash and bank balances are at floating rates of interest.

The Group's interest-bearing loans and borrowings is primarily in United States dollars, linked to United States dollar LIBOR (London Interbank Offered Rate). The Group uses derivatives to swap between fixed and floating rates. At 31 December 2021, the proportion of floating rate debt was 24% of the total financial debt outstanding (2020: 100%).

Interest rate sensitivity analysis

The impact on the Group's profit before tax and equity due to a reasonably possible change in interest rates on interest-bearing loans and borrowings at the reporting date is demonstrated in the table below. The analysis assumes that all other variables remain constant.

	Profit before tax		Equity	
	100 basis point increase US$m	100 basis point decrease US$m	100 basis point increase US$m	100 basis point decrease US$m
31 December 2021	**(4)**	**4**	**–**	**–**
31 December 2020	(5)	5	–	–

Foreign currency risk

The Group is exposed to foreign currency risk on sales, purchases, and translation of assets and liabilities that are in a currency other than the functional currency of its operating units. The Group is also exposed to the translation of the functional currencies of its units to the United States dollar reporting currency of the Group.

33 Risk management and financial instruments continued

The following table summarises the percentage of foreign currencies i.e. not denominated in the Group's reporting currency expressed in United States dollar amounts.

	2021 % of foreign currency denominated items	2020 % of foreign currency denominated items
Revenues	**54.5%**	41.8%
Costs	**66.7%**	44.9%
Non-current financial assets	**15.7%**	14.7%
Current financial assets	**43.3%**	50.2%
Non-current financial liabilities	**6.7%**	22.8%
Current financial liabilities	**42.7%**	34.4%

The Group uses forward currency contracts to manage the currency exposure on transactions significant to its operations. It is the Group's policy not to enter into forward contracts until a highly probable forecast transaction is in place and to negotiate the terms of the derivative instruments used for hedging to match the terms of the hedged item to maximise hedge effectiveness.

Foreign currency sensitivity analysis

The income statements of subsidiaries with non-USD functional currencies are translated into the Group's reporting currency using a weighted average exchange rate. Foreign currency monetary items are translated using the closing rate at the reporting date. Revenues and costs in currencies other than the functional currency of an operating unit are recorded at the prevailing rate at the date of the transaction. The following significant exchange rates applied during the year in relation to United States dollars:

	2021		2020	
	Average rate	**Closing rate**	Average rate	Closing rate
Sterling	**1.38**	**1.35**	1.28	1.36
Kuwaiti dinar	**3.31**	**3.31**	3.26	3.29
Euro	**1.18**	**1.14**	1.13	1.23

The following table summarises the impact on the Group's profit before tax and equity (due to a change in the fair value of monetary assets, liabilities and derivative instruments) of a reasonably possible change in United States dollar exchange rates with respect to different currencies:

	Profit before tax		Equity	
	+10% US dollar rate increase US$m(1)	–10% US dollar rate decrease US$m(1)	+10% US dollar rate increase US$m	–10% US dollar rate decrease US$m
31 December 2021	**15**	**(15)**	**14**	**(14)**
31 December 2020	6	(6)	(4)	4

(1) Includes impact on pegged currencies.

Derivative instruments

At 31 December, the Group had foreign exchange forward contracts as follows:

	Contract value		Fair value (undesignated)		Fair value (designated)		Net unrealised gain/(loss)(1)	
	2021 US$m	2020 US$m	**2021 US$m**	2020 US$m	**2021 US$m**	2020 US$m	**2021 US$m**	2020 US$m
Euro (sales)/purchases	**(45)**	(71)	**–**	1	**–**	(3)	**(1)**	(2)
Sterling sales	**(224)**	(230)	**(4)**	(15)	**–**	1	**–**	1
Kuwaiti dinar sales	**(254)**	(343)	**–**	–	**–**	(3)	**(2)**	(3)
Arab Emirates dirham purchases	**50**	150	**–**	–	**–**	–	**–**	–
Others	**(6)**	–	**–**	–	**–**	–	**–**	–
	n/a	n/a	**(4)**	(14)	**–**	(5)	**(3)**	(4)

(1) Attributable to Petrofac Limited shareholders.

The above foreign exchange contracts mature and will affect profit before tax between January 2022 and November 2023 (2020: between January 2021 and May 2022).

During 2021, net changes in fair value resulting in a loss of US$1m (2020: US$17m) relating to these derivative instruments and financial assets were taken to equity and losses of US$692,000 (2020: US$130,000) were recycled from equity into cost of sales in the consolidated income statement. The forward points and ineffective portions of the above foreign exchange forward contracts and loss on undesignated derivatives of US$3m (2020: US$5m) were recognised in the consolidated income statement.

Commodity price risk – oil prices

The Group is exposed to the impact of changes in oil and gas prices on its revenues and net profit generated from sales of crude oil and gas. The Group's policy is to manage its exposure to the impact of changes in oil and gas prices using derivative instruments. Hedging is only undertaken once sufficiently reliable and regular long-term forecast production data is available. No crude oil derivatives were entered by the Group during 2021 to hedge oil production.

Credit risk

The Group trades only with recognised, creditworthy third parties. Business Unit Risk Review Committees (BURRC) evaluate the credit worthiness of each individual third party at the time of entering into new contracts. Limits have been placed on the approval authority of the BURRC above which the approval of the Board of Directors of the Company is required. Receivable balances are monitored on an ongoing basis with appropriate follow-up action taken where necessary. At 31 December 2021, the Group's five largest customers accounted for 49% of outstanding trade receivables and contract assets (2020: 49%).

With respect to credit risk arising from the other financial assets of the Group, which comprise cash and cash equivalents, current and non-current receivables from joint operation partners for leases and certain derivative instruments, the Group's exposure to credit risk arises from default of the counterparty, with a maximum exposure equal to the carrying amount of these instruments.

Liquidity risk

The Group's objective is to ensure sufficient liquidity to support operations and future growth is available. The provision of financial capital and the potential impact on the Group's capital structure is reviewed regularly. The maturity profiles of the Group's financial liabilities at 31 December are as follows:

Year ended 31 December 2021

	6 months or less US$m	**6 – 12 months US$m**	**1 – 2 years US$m**	**2 – 5 years US$m**	**More than 5 years US$m**	**Contractual undiscounted cash flows US$m**	**Carrying amount US$m**
Financial liabilities							
Interest-bearing loans and borrowings	**–**	**–**	**195**	**600**	**–**	**795**	**764**
Lease liabilities	**42**	**32**	**64**	**143**	**2**	**283**	**251**
Trade and other payables (excluding other taxes payable and retention payable)	**890**	**80**	**–**	**–**	**–**	**970**	**970**
Derivative instruments	**5**	**–**	**–**	**–**	**–**	**5**	**5**
Embedded derivative in respect of the revolving credit facility	**4**	**–**	**–**	**–**	**–**	**4**	**4**
Interest payments	**34**	**34**	**66**	**175**	**–**	**309**	**n/a**
	975	**146**	**325**	**918**	**2**	**2,366**	**1,994**

Year ended 31 December 2020

	6 months or less US$m	6 – 12 months US$m	1 – 2 years US$m	2 – 5 years US$m	More than 5 years US$m	Contractual undiscounted cash flows US$m	Carrying amount US$m
Financial liabilities							
Interest-bearing loans and borrowings	750	–	–	50	–	800	800
Lease liabilities	129	35	51	112	24	351	313
Trade and other payables (excluding other taxes payable and retention payable)	672	85	–	–	–	757	757
Derivative instruments	23	3	–	–	–	26	26
Interest payments	9	1	2	2	–	14	n/a
	1,583	124	53	164	24	1,948	1,896

The Group uses various committed facilities provided by banks and its own financial assets to fund the above-mentioned financial liabilities.

33 Risk management and financial instruments continued

Capital management

The Group's policy is to maintain a robust capital base to support future operations, growth and maximise shareholder value.

The Group seeks to optimise shareholder returns by maintaining a balance between debt and equity attributable to Petrofac Limited shareholders and monitors the efficiency of its capital structure on a regular basis. The gearing ratio and return on shareholders' equity is as follows:

	2021 US$m	2020 (restated)[1] US$m
Cash and short-term deposits	**620**	684
Interest-bearing loans and borrowings (A)	**(764)**	(800)
Net debt (B)	**(144)**	(116)
Equity attributable to Petrofac Limited shareholders (C)	**475**	403
Reported net loss for the year attributable to Petrofac Limited shareholders (D)	**(195)**	(192)
Gross gearing ratio (A/C)	**160.8%**	198.5%
Net gearing ratio (B/C)	**30.3%**	28.8%
Shareholders' return on investment (D/C)	**(41.1%)**	(47.6%)

1) The prior year balances are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

34 Subsidiaries, associates and joint arrangements

At 31 December 2021, the Group had investments in the following active subsidiaries, associates and joint arrangements:

Name of entity	Country of incorporation	Proportion of nominal value of issued shares controlled by the Group 2021	2020
Active subsidiaries			
Petrofac Algeria EURL	Algeria	**100**	100
Petrofac International (Bahrain) W.L.L	Bahrain	**100**	100
Petrofac South East Asia (B) Sdn. Bhd.	Brunei	**100**	100
Petrofac (Cyprus) Limited	Cyprus	**100**	100
Caltec Limited	England	**100**	100
K W Limited	England	**100**	100
Oilennium Limited	England	**100**	100
Petrofac (Malaysia-PM304) Limited	England	**100**	100
Petrofac Contracting Limited	England	**100**	100
Petrofac Engineering Limited	England	**100**	100
Petrofac Services Limited	England	**100**[1]	100[1]
Petrofac Treasury UK Limited	England	**100**[1]	100[1]
Petrofac UK Holdings Limited	England	**100**[1]	100[1]
PetroHealth Limited	England	**100**	100
Petrofac Deutschland GmbH	Germany	**100**	100
Jermyn Insurance Company Limited	Guernsey	**100**[1]	100[1]
Petrofac Engineering India Private Limited	India	**100**	100
Petrofac Engineering Services India Private Limited	India	**100**	100
Petrofac Projects and Services Private Limited (formerly Petrofac Information Services Private Limited)	India	**100**	100
Petrofac (JSD6000) Limited	Jersey	**100**	100
Petrofac Energy Developments International Limited	Jersey	**100**[1]	100[1]
Petrofac Facilities Management International Limited	Jersey	**100**[1]	100[1]
Petrofac Integrated Energy Services Limited	Jersey	**100**[1]	100[1]
Petrofac International Ltd.	Jersey	**100**[1]	100[1]
Petrofac Offshore Management Limited	Jersey	**100**	100
Petrofac Platform Management Services Limited	Jersey	**100**	100
Petrofac Training International Limited	Jersey	**100**[1]	100[1]
Petroleum Facilities E & C Limited	Jersey	**100**[1]	100[1]
Petrofac E&C Sdn. Bhd.	Malaysia	**100**	100
Petrofac Energy Developments Sdn. Bhd.	Malaysia	**100**	100
Petrofac Engineering Services (Malaysia) Sdn. Bhd.	Malaysia	**70**	70

Name of entity	Country of incorporation	Proportion of nominal value of issued shares controlled by the Group 2021	2020
PFMAP Sdn. Bhd.	Malaysia	**100**	100
Petrofac EPS Sdn. Bhd.	Malaysia	**49(2)**	49(2)
Petrofac International (Mozambique), Lda	Mozambique	**100**	100
Petrofac Kazakhstan B.V.	Netherlands	**100**	100
Petrofac Netherlands Coöperatief U.A.	Netherlands	**100**	100
Petrofac Nigeria B.V.	Netherlands	**100**	100
Petrofac Norge B.V.	Netherlands	**100**	100
PTS B.V.	Netherlands	**100**	100
Petrofac Energy Services Nigeria Limited	Nigeria	**100**	100
Petrofac International (Nigeria) Limited	Nigeria	**100**	100
Petrofac Norge AS	Norway	**100**	100
Petrofac E&C Oman LLC	Oman	**100**	100
PKT Training Services Limited	Russia	**100**	100
Sakhalin Technical Training Centre	Russia	**100**	100
Petrofac Saudi Arabia Company Limited	Saudi Arabia	**100**	100
Atlantic Resourcing Limited	Scotland	**100**	100
Petrofac Facilities Management Group Limited	Scotland	**100**	100
Petrofac Facilities Management Limited	Scotland	**100**	100
Petrofac Training Group Limited	Scotland	**100**	100
Petrofac Training Holdings Limited	Scotland	**–**	100
Petrofac Training Limited	Scotland	**100**	100
Scotvalve Services Limited	Scotland	**100**	100
SPD Limited	Scotland	**100**	100
Global Mobility Company Pte Limited	Singapore	**100(1)**	–
Petrofac South East Asia Pte Ltd	Singapore	**100(1)**	100(1)
Petrofac E&C International Limited	United Arab Emirates	**100**	100
Petrofac Emirates LLC (note 13)	United Arab Emirates	**75**	75
Petrofac FZE	United Arab Emirates	**100**	100
Petrofac International (UAE) LLC	United Arab Emirates	**100**	100
Petrofac Inc.	United States	**100**	100
Petrofac Training Inc.	United States	**100**	100
Petrofac US Holdings Limited	United States	**100**	100
W&W Energy Services Inc.	United States	**100**	100
SPD Group Limited	British Virgin Islands	**100**	100

34 Subsidiaries, associates and joint arrangements continued

Associates

Name of associate	Principal activities	Country of incorporation	Proportion of nominal value of issued shares controlled by the Group 2021	2020
PetroFirst Infrastructure Limited	Leasing of floating platforms to oil and gas industry	Jersey	**20**	20
PetroFirst Infrastructure 2 Limited	Leasing of floating platforms to oil and gas industry	Jersey	**10**	10
Joint arrangements				
Joint ventures				
Socar – Petrofac LLC	Training services	Azerbaijan	**49**	49
Petrofac Kazakhstan Engineering Services LLP	Engineering services	Kazakhstan	**50**	50
Petrofac – ISKER LLP	Engineering and construction services	Kazakhstan	**50**	50
China Petroleum Petrofac Engineering Services Cooperatief U.A.	Consultancy for petroleum and chemical engineering	Netherlands	**49**	49
Takatuf Petrofac Oman LLC	Construction, operation and management of a training centre	Oman	**40**	40
Joint operations				
Petrofac – CPECC JV	Operations and maintenance contract in Iraq	Iraq	**65**[4]	65[4]
PSS Netherlands B.V.	Engineering, procurement, supply of equipment and materials and related services to execute the Company's scope of work for a project in Thailand	Netherlands	**36**[3]	36[3]
Bechtel Petrofac JV	Engineering, procurement and construction management of a project in UAE	Unincorporated	**35**[4]	35[4]
Petrofac/Bonatti JV	EPC for a project in Algeria	Unincorporated	**70**[4]	70[4]
Petrofac/Daelim JV	EPC for a project in Oman	Unincorporated	**50**[4]	50[4]
PM304 JV	Oil and gas exploration and production in Malaysia	Unincorporated	**30**[4]	30[4]
Petrofac/Samsung/CB&I CFP	EPC for a project in Kuwait	Unincorporated	**47**[4]	47[4]
Petrofac/Samsung	EPC for a project in Oman	Unincorporated	**50**[4]	50[4]
Petrofac/Saipem/Samsung	Offshore works for a project in Thailand	Unincorporated	**36**[4]	36[4]

Please note that only active entities are shown in the above tables. All dormant entities have been omitted.

1 Directly held by Petrofac Limited.
2 Entities consolidated as subsidiaries on the basis of control.
3 The joint arrangement is classified as a joint operation as, contractually, the joint operation partners have rights to the joint operation's assets and obligation for the joint operation's liabilities.
4 The unincorporated arrangement between the venturers is a joint arrangement as, contractually, all the decisions about the relevant activities require unanimous consent by the venturers. Unincorporated joint arrangements are recognised in the Group's financial statements as joint operations.

The Group's ownership interest in associates and joint ventures is disclosed in note 16.

Appendix A

The Group references Alternative Performance Measures (APMs) when evaluating the Group's reported financial performance, financial position and cash flows that are not defined or specified under International Financial Reporting Standards (IFRS). The Group considers that these APMs, which are not a substitute for or superior to IFRS measures, provide stakeholders with additional useful information by adjusting for certain reported items which impact upon IFRS measures or, by defining new measures, aid the understanding of the Group's financial performance, financial position and cash flows. These are aligned to measures which are used internally to assess business performance in the Group's processes when determining compensation.

APM	Description	Closest equivalent IFRS measure	Adjustments to reconcile to primary statements	Rationale for adjustments
Group's business performance net profit attributable to Petrofac Limited shareholders (note A1)	Measures net profitability	Group's net profit/(loss)	Petrofac presents business performance APM in the consolidated income statement as a means of measuring underlying business performance. The business performance net profit measure excludes Separately Disclosed Items (SDI) (note 2.8). Business performance diluted earnings per share is calculated only when the reported result is a profit.	The intention of this measure is to provide users of the consolidated financial statements with a clear and consistent presentation of underlying business performance and it excludes the impact of certain items to aid comparability
Business performance basic and diluted earnings per share attributable to Petrofac Limited shareholders (note A2)	Measures net profitability	Basic and diluted earnings per share		
Business performance earnings before interest, tax, depreciation and amortisation (EBITDA) (note A3)	Measures operating profitability	Operating profit/(loss)	Excludes SDI (note 2.8), depreciation and amortisation and includes share of net profits from associates and joint ventures	The intention of this measure is to provide users of the consolidated financial statements with a clear and consistent presentation of underlying operating performance
Business performance earnings before interest and tax (EBIT) (note A4)	Measures operating profitability	Operating profit/(loss)	Excludes SDI (note 2.8) and includes share of net profits from associates and joint ventures	The intention of this measure is to provide users of the consolidated financial statements with a clear and consistent presentation of underlying operating performance
Business performance effective tax rate (ETR) (note A5)	Measures tax charge	Income tax expense	Excludes income tax credit related to SDI	The intention of this measure is to provide users of the consolidated financial statements with a clear and consistent presentation of underlying business performance ETR
Capital expenditure (note A6)	Measures net cash cost of capital investment	Net cash flows generated from/(used in) investing activities	Excludes dividends received from associates and joint ventures, net loans repaid by/(paid to) associates and joint ventures, proceeds from disposal of property, plant and equipment, proceeds from disposal of subsidiaries and interest received	Excludes items not considered relevant to capital investment

APM	Description	Closest equivalent IFRS measure	Adjustments to reconcile to primary statements	Rationale for adjustments
Free cash flow (note A7)	Measures net cash generated after operating and investing activities to finance returns to shareholders	Net cash flows generated from/(used in) operating activities plus net cash flows (used in)/generated from investing activities less interest paid and the repayment of finance lease principal plus amounts received from non-controlling interest	n/a	n/a
Working capital, balance sheet measure (note A8)	Measures the investment in working capital	No direct equivalent. Calculated as inventories plus trade and other receivables plus contract assets less trade and other payables less contract liabilities less accrued contract expenses	n/a	n/a
Return on capital employed (ROCE) (note A9)	Measures the efficiency of generating operating profits from capital employed	No direct equivalent. Calculated as business performance earnings before interest, tax and amortisation (EBITA) divided by capital employed (average total assets less average current liabilities after adjusting for certain leases)	n/a	n/a
Cash conversion (note A10)	Measures the conversion of EBITDA into cash	No direct equivalent. Calculated as cash generated from operations divided by business performance EBITDA	n/a	n/a
Net lease liabilities (note A11)	Measures net lease liabilities	No direct equivalent. Calculated as gross lease liabilities less 70% of leases in respect of right-of-use assets relating to Block PM304 in Malaysia	n/a	n/a
Net debt/net cash (note A12)	Measures indebtedness	No direct equivalent. Calculated as interest-bearing loans and borrowings less cash and short-term deposits	n/a	n/a
New order intake (note A13)	Provides visibility of future revenue	No direct equivalent. Calculated as net awards and net variation orders	n/a	n/a

A1. Business performance net profit attributable to Petrofac Limited shareholders

	2021 US$m	2020 (restated)(1) US$m
Reported net loss (A)	**(192)**	(201)
Adjustments – separately disclosed items (note 6):		
UK Serious Fraud Office proceedings	**106**	–
Impairment of assets	**17**	146
Fair value re-measurements	**8**	57
Group reorganisation and redundancy costs	**2**	13
Cloud ERP implementation costs	**12**	14
Other separately disclosed items	**14**	13
Operating profit separately disclosed items (B)	**159**	243
Refinancing related costs – finance expense separately disclosed items (C)	**28**	–
Foreign exchange translation gains on deferred tax balances	**–**	(1)
Deferred tax impairment	**43**	–
Tax credit on separately disclosed items (D)	**43**	(1)
Post-tax separately disclosed items (E = B + C + D)	**230**	242
Group's business performance net profit (A + E)	**38**	41
(Gain)/loss attributable to non-controlling interest	**(3)**	9
Business performance net profit attributable to Petrofac Limited shareholders	**35**	50

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

A2. Business performance basic earnings per share attributable to Petrofac Limited shareholders

	2021 US$m	2020 (restated)(1) US$m
Reported net profit attributable to Petrofac Limited shareholders (E)	**(195)**	(192)
Add: post-tax separately disclosed items (appendix A, note A1)	**230**	242
Business performance net profit attributable to Petrofac Limited shareholders (E1)	**35**	50

	2021 Shares million	2020 Shares million
Weighted average number of ordinary shares for basic earnings per share(2) (F) (note 9)	**362**	337
Weighted average number of ordinary shares for diluted earnings per share(3) (F1) (note 9)	**362**	337

	2021 US cents	2020 (restated)(1) US cents
Basic earnings per share		
Business performance (E1/F x 100)	**9.7**	14.8
Reported (E/F x 100)	**(53.8)**	(57.0)
Diluted earnings per share		
Business performance (E1/F1 x 100)	**9.7**	14.8
Reported (E/F1 x 100)	**(53.8)**	(57.0)

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.
(2) The weighted number of ordinary shares in issue during the year, excluding those held by the Employee Benefit trust.
(3) For the year ended 31 December 2021 and 2020, potentially issuable ordinary shares under the share-based payment plans are excluded from both the business performance and reported diluted earnings per ordinary share calculation, as their inclusion would decrease any loss per ordinary share.

A3. Business performance EBITDA

	2021 US$m	2020 (restated)[1] US$m
Reported operating (loss)/profit	**(130)**	(160)
Adjustments:		
Operating profit separately disclosed items (appendix A, note A1)	**159**	243
Share of net profits from associates and joint ventures (note 16)	**7**	5
Depreciation (note 12)	**62**	82
Amortisation, business performance impairment and write-off (note 5a, note 5b and 5g)	**6**	41
Business performance EBITDA	**104**	211

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

A4. Business performance EBIT

	2021 US$m	2020 (restated)[1] US$m
Reported operating (loss)/profit	**(130)**	(160)
Adjustments:		
Operating profit separately disclosed items (appendix A, note A1)	**159**	243
Share of net profits from associates and joint ventures (note 16)	**7**	5
Business performance EBIT	**36**	88

A5. Business performance ETR

	2021 US$m	2020 (restated)[1] US$m
Reported income tax expense	**3**	18
Add: Tax (charge)/credit on separately disclosed items (appendix A, note A1)	**(43)**	1
Business performance income tax (credit)/expense (G)	**(40)**	19
Group's business performance net profit (appendix A, note A1)	**38**	41
Group's business performance net (loss)/profit before tax (H)	**(2)**	60
Business performance ETR (G/H x 100)	**>100%**	31.7%

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

A6. Capital expenditure

	2021 US$m	2020 US$m
Net cash flows used in investing activities	**30**	7
Adjustments:		
Contingent consideration paid	**–**	(3)
Dividends received from associates and joint ventures	**8**	9
Loans paid to associates and joint ventures	**–**	(2)
Disposal costs paid	**–**	(3)
Net proceeds from disposal of subsidiaries, including receipt against contingent consideration	**9**	31
Proceeds from disposal of property, plant and equipment	**5**	1
Interest received	**1**	3
Capital expenditure	**53**	43

A7. Free cash flow

	2021 US$m	2020 (restated)[1,2] US$m
Net cash flows used in operating activities	**(161)**	(30)
Net cash flows used in investing activities	**(30)**	(7)
Interest paid	**(27)**	(36)
Separately disclosed items – refinancing related costs	**(23)**	–
Repayment of lease liabilities	**(40)**	(50)
Free cash flow	**(281)**	(123)

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.
(2) The definition of free cash flow has been amended to include the repayment of lease liabilities.

A8. Working capital

	2021 US$m	2020 US$m
Inventories (note 18)	**23**	8
Trade and other receivables (note 19)	**668**	877
Contract assets (note 20)	**1,580**	1,652
Current Assets (I)	**2,271**	2,537
Trade and other payables (note 28)	**1,090**	887
Contract liabilities (note 20)	**58**	120
Accrued contract expenses	**780**	1,134
Current Liabilities (J)	**1,928**	2,141
Working capital (I – J)	**343**	396

A9. Return on capital employed

	2021 US$m	2020 (restated)[1] US$m
Reported operating loss	**(130)**	(160)
Adjustments:		
Operating profit separately disclosed items (appendix A, note A1)	**159**	243
Share of profits from associates and joint ventures (note 16)	**7**	5
Amortisation (note 5a and 5b)	**6**	5
Business performance EBITA (K)	**42**	93
Total assets opening balance	**4,171**	5,960
Less: 70% on leases in respect of right-of-use assets relating to Block PM304 in Malaysia	**(177)**	(259)
Adjusted total assets opening balance (L)	**3,994**	5,701
Total assets closing balance	**3,837**	4,171
Less: 70% on leases in respect of right-of-use assets relating to Block PM304 in Malaysia (note A11)	**(127)**	(177)
Adjusted total assets closing balance (M)	**3,710**	3,994
Average total assets (N = (L + M)/2)	**3,852**	4,848
Current liabilities opening balance	**3,336**	3,922
Less: 70% on leases in respect of right-of-use assets relating to Block PM304 in Malaysia (note A11)	**(97)**	(89)
Adjusted current liabilities opening balance (O)	**3,239**	3,833
Current liabilities closing balance	**2,221**	3,336
Less: 70% on leases in respect of right-of-use assets relating to Block PM304 in Malaysia (note A11)	**(34)**	(97)
Adjusted current liabilities closing balance (P)	**2,187**	3,239
Average current liabilities (Q = (O + P)/2)	**2,713**	3,536
Capital employed (R = N – Q)	**1,139**	1,312
Return on capital employed (K/R x 100)	**3.7%**	7.1%

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

A10. Cash conversion

	2021 US$m	2020 (restated)[1] US$m
Cash (used in)/generated from operations (S)	**(91)**	77
Business performance EBITDA (T)	**104**	213
Cash conversion (S/T x 100)	**<0.0%**	36.2%

(1) The prior year numbers are restated in relation to the adoption of the IFRIC decision on cloud configuration and customisation costs in April 2021; see note 2.9.

A11. Net lease liabilities

	2021 US$m	2020 US$m
Non-current liability for lease liabilities (note 17)	**190**	163
Current liability for lease liabilities (note 17)	**61**	150
Total gross liability for lease liabilities	**251**	313
Gross-up on non-current liability for leases in respect of right-of-use assets relating to Block PM304 in Malaysia (note 17)	**93**	80
Gross-up on current liability for leases in respect of right-of-use assets relating to Block PM304 in Malaysia (note 17)	**34**	97
Total 70% on leases in respect of right-of-use assets relating to Block PM304 in Malaysia	**127**	177
Net non-current liability for leases	**97**	83
Net current liability for leases	**27**	53
Net lease liabilities	**124**	136

A12. Net debt

	2021 US$m	2020 US$m
Interest-bearing loans and borrowings (U) (note 26)	**764**	800
Less: Cash and short-term deposits (V) (note 21)	**(620)**	(684)
Net debt (U – V)	**144**	116

A13. New order intake

	2021 US$m	2020 US$m
Engineering & Construction operating segment		
Net awards	**857**	314
Net variation orders	**350**	396
	1,207	710
Asset Solutions operating segment		
Net awards	**993**	1,177
Net variation orders	**39**	(255)
	1,032	922
New order intake	**2,239**	1,632