6.1 2022-2023 CGG CONSOLIDATED FINANCIAL STATEMENTS

6.1.1 Consolidated statement of operations

In millions of US$	Notes	December 31 2023	2022
Operating revenues	18, 19	1,075.5	926.9
Other income from ordinary activities		0.3	0.5
Total income from ordinary activities		**1,075.8**	**927.4**
Cost of operations		(817.4)	(654.9)
Gross profit		**258.4**	**272.5**
Research and development expenses – net	20	(26.1)	(19.0)
Marketing and selling expenses		(36.1)	(29.6)
General and administrative expenses		(75.8)	(68.2)
Other revenues (expenses) – net	21	(1.4)	25.9
Operating income	**19**	**119.0**	**181.6**
Cost of financial debt – gross		(103.3)	(100.2)
Income from cash and cash equivalents		8.0	1.7
Cost of financial debt – net	**13, 22**	**(95.3)**	**(98.5)**
Other financial income (loss)	23	(3.8)	0.4
Income (loss) before income taxes and share of income (loss) from companies accounted for under the equity method		**19.9**	**83.5**
Income taxes	24	(14.0)	(17.2)
Net income (loss) before share of net income (loss) from companies accounted for under the equity method		**5.9**	**66.3**
Net income (loss) from companies accounted for under the equity method	8	(2.0)	(18.5)
Net income (loss) from continuing operations		**3.9**	**47.8**
Net income (loss) from discontinued operations	5	12.3	(4.5)
Consolidated net income (loss)		**16.2**	**43.3**
Attributable to:			
Owners of CGG		12.9	43.1
Non-controlling interests		3.3	0.2
Weighted average number of shares outstanding	29	713,128,521	712,088,021
Weighted average number of shares outstanding adjusted for dilutive potential ordinary shares	29	717,189,330	714,608,919
Net income (loss) per share *(in US$)*			
– Base		0.02	0.06
– Diluted		0.02	0.06
Net income (loss) from continuing operations per share *(in US$)*			
– Base	$	0.00	0.07
– Diluted	$	0.00	0.07
Net income (loss) from discontinued operations per share *(in US$)*			
– Base	$	0.02	(0.01)
– Diluted	$	0.02	(0.01)

The accompanying notes are an integral part of the consolidated financial statements.

Consolidated statement of comprehensive income (loss)

	December 31	
In millions of US$	**2023** [(a)]	**2022** [(a)]
Net income (loss) from consolidated statement of operations	**16.2**	**43.3**
Other comprehensive income to be reclassified in profit (loss) in subsequent period:		
Net gain (loss) on cash flow hedges	2.0	(2.6)
Variation in translation adjustments	14.2	(41.8)
Net other comprehensive income to be reclassified in profit (loss) in subsequent period (1)	**16.2**	**(44.4)**
Other comprehensive income not to be classified in profit (loss) in subsequent period:		
Net gain (loss) on actuarial changes on pension plan	(4.6)	6.5
Net other comprehensive income not to be reclassified in profit (loss) in subsequent period (2)	**(4.6)**	**6.5**
Total other comprehensive income (loss) for the period, net of taxes (1)+(2)	**11.6**	**(37.9)**
Total comprehensive income (loss) for the period	**27.8**	**5.4**
Attributable to:		
Owners of CGG	25.1	8.8
Non-controlling interests	2.7	(3.4)

(a) *Including other comprehensive income related to discontinued operations which is not material.*

The accompanying notes are an integral part of the consolidated financial statements.

6.1.2 Consolidated statement of financial position

In millions of US$	Notes	Dec 31, 2023	Dec 31, 2022
ASSETS			
Cash and cash equivalents	28	327.0	298.0
Trade accounts and notes receivable, net	3, 18	310.9	308.3
Inventories and work-in-progress, net	4	212.9	257.2
Income tax assets	4	30.8	53.4
Other current financial assets, net	7	-	0.1
Other current assets, net	4	92.1	99.9
Total current assets		**973.7**	**1,016.9**
Deferred tax assets	24	29.9	24.2
Other non-current assets, net	16	6.8	8.2
Investments and other financial assets, net	7	22.7	18.4
Investments in companies accounted for under the equity method	8	2.2	10.8
Property plant & equipment, net	9	206.1	167.3
Intangible assets, net	10	579.7	554.2
Goodwill, net	11	1,095.5	1,089.4
Total non-current assets		**1,942.9**	**1,872.5**
TOTAL ASSETS		**2,916.6**	**2,889.4**
LIABILITIES AND EQUITY			
Financial debt – current portion	13	58.0	60.4
Trade accounts and notes payable		86.4	92.0
Accrued payroll costs		89.1	85.6
Income taxes payable		12.5	27.2
Advance billings to customers		24.0	29.4
Provisions – current portion	16	8.7	17.6
Other current financial liabilities	14	21.3	20.0
Other current liabilities	12	250.3	222.1
Total current liabilities		**550.3**	**554.3**
Deferred tax liabilities	24	24.3	18.7
Provisions – non-current portion	16	30.1	28.6
Financial debt – non-current portion	13	1,242.8	1,188.8
Other non-current financial liabilities	14	0.5	21.8
Other non-current liabilities	12	4.3	18.4
Total non-current liabilities		**1,302.0**	**1,276.3**
Common stock [a]	15	8.7	8.7
Additional paid-in capital		118.7	118.6
Retained earnings		980.4	967.9
Other Reserves		27.3	50.0
Treasury shares		(20.1)	(20.1)
Cumulative income and expense recognized directly in equity		(1.4)	(3.4)
Cumulative translation adjustments		(90.8)	(102.4)
Equity attributable to owners of CGG SA		**1,022.8**	**1,019.3**
Non-controlling interests		41.5	39.5
Total Equity		**1,064.3**	**1,058.8**
TOTAL LIABILITIES AND EQUITY		**2,916.6**	**2,889.4**

(a) Common stock: 1,101,051,177 shares authorized and 713,676,258 shares with a nominal value of €0.01 outstanding at December 31, 2023.

The accompanying notes are an integral part of the consolidated financial statements.

6.1.3 Consolidated statement of cash flows

		December 31	
In millions of US$	Notes	2023	2022
OPERATING ACTIVITIES			
Consolidated net income (loss)	1, 19	16.2	43.3
Less: Net income (loss) from discontinued operations	5	(12.3)	4.5
Net income (loss) from continuing operations		**3.9**	**47.8**
Depreciation, amortization and impairment	1, 19, 28	91.5	92.2
Impairment and amortization of Earth Data surveys	1, 10, 28	153.1	171.4
Amortization and depreciation of Earth Data surveys, capitalized	10	(15.4)	(16.0)
Variance on provisions		(2.6)	1.4
Share-based compensation expenses		2.8	3.0
Net (gain) loss on disposal of fixed and financial assets		(1.7)	(37.6)
Share of (income) loss in companies recognized under equity method		2.0	18.5
Other non-cash items		5.2	(0.4)
Net cash flow including net cost of financial debt and income tax		**238.8**	**280.3**
Less: Cost of financial debt		95.3	98.5
Less: Income tax expense (gain)		14.0	17.2
Net cash flow excluding net cost of financial debt and income tax		**348.1**	**396.0**
Income tax paid - Net [(a)]		5.5	1.6
Net cash flow before changes in working capital		**353.6**	**397.6**
Changes in working capital		54.7	(52.1)
– Change in trade accounts and notes receivable		51.8	45.0
– Change in inventories and work-in-progress		49.2	(68.5)
– Change in other current assets		(9.9)	(20.8)
– Change in trade accounts and notes payable		(5.4)	16.8
– Change in other current liabilities		(31.0)	(24.6)
Net cash flow from operating activities		**408.3**	**345.5**
INVESTING ACTIVITIES			
Total capital expenditures (tangible and intangible assets) net of variation of fixed assets suppliers and excluding Earth Data surveys)	9	(60.9)	(54.5)
Investments in Earth Data surveys	10	(171.1)	(205.3)
Proceeds from disposals of tangible and intangible assets	28	0.4	95.0
Acquisition of investments, net of cash & cash equivalents acquired	28	(1.9)	(36.4)
Proceeds from divestment of activities and sale of financial assets	28	6.2	4.9
Variation in subsidies for capital expenditures		-	(0.1)
Variation in other non-current financial assets	28	(5.2)	(2.5)
Net cash-flow used in investing activities		**(232.5)**	**(198.9)**

In millions of US$	Notes	December 31 2023	2022
FINANCING ACTIVITIES			
Repayment of long-term debt	13, 28	(1.8)	(0.1)
Total issuance of long-term debt	13, 28	23.9	10.7
Lease repayments	13, 28	(57.0)	(48.4)
Financial expenses paid	13, 28	(90.7)	(92.4)
Loan granted		-	1.6
Net proceeds from capital increase:		-	-
– from shareholders		0.1	0.4
– from non-controlling interests of integrated companies		-	-
Dividends paid and share capital reimbursements			-
– to owners of CGG		-	-
– to non-controlling interests of integrated companies		(0.9)	(0.9)
Net cash-flow from (used in) financing activities		**(126.4)**	**(129.1)**
Effect of exchange rate changes on cash		2.6	(16.8)
Net cash flows incurred by discontinued operations	5	**(23.0)**	**(21.9)**
Net increase (decrease) in cash and cash equivalents		**29.0**	**(21.2)**
Cash and cash equivalents at beginning of year		298.0	319.2
Cash and cash equivalents at end of period		**327.0**	**298.0**

(a) Includes a cash inflow of US$32 million in 2023 and US$9 million in 2022 for the research tax credit in France.

The accompanying notes are an integral part of the consolidated financial statements.

6.1.4 Consolidated statement of changes in equity

In millions of US$, except for share data	Number of shares issued	Share capital	Additional paid-in capital	Retained earnings	Other reserves	Treasury shares	Income and expense recognized directly in equity	Cumu-lative translation adjust-ment	CGG SA - Equity attributable to owners of CGG SA	Non-controlling interests	Total equity
Balance at January 1, 2022	**711,663,925**	**8.7**	**464.1**	**570.0**	**5.0**	**(20.1)**	**(0.8)**	**(64.2)**	**962.7**	**43.7**	**1,006.4**
Net gain (loss) on actuarial changes on pension plans (1)				6.5					6.5		6.5
Net gain (loss) on cash flow hedges (2)							(2.6)		(2.6)		(2.6)
Net gain (loss) on translation adjustments (3)								(38.2)	(38.2)	(3.6)	(41.8)
Other comprehensive income (1)+(2)+(3)	**-**	**-**	**-**	**6.5**	**-**	**-**	**(2.6)**	**(38.2)**	**(34.3)**	**(3.6)**	**(37.9)**
Net income (4)				43.1					43.1	0.2	43.3
Comprehensive income (1)+(2)+(3)+(4)	**-**	**-**	**-**	**49.6**	**-**	**-**	**(2.6)**	**(38.2)**	**8.8**	**(3.4)**	**5.4**
Exercise of warrants	122,278		0.4						0.4		0.4
Dividends									-	(0.9)	(0.9)
Cost of share-based payment	571,118			2.6					2.6		2.6
Transfer to retained earnings of the parent company			(346.0)	346.0					-		-
Variation in translation adjustments generated by the parent company					45.0				45.0		45.0
Changes in consolidation scope and other			0.1	(0.3)					(0.2)	0.1	(0.1)
Year ended December 31, 2022	**712,357,321**	**8.7**	**118.6**	**967.9**	**50.0**	**(20.1)**	**(3.4)**	**(102.4)**	**1,019.3**	**39.5**	**1,058.8**

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In millions of US$, except for share data	Number of shares issued	Share capital	Additional paid-in capital	Retained earnings	Other reserves	Treasury shares	Income and expense recognized directly in equity	Cumulative translation adjustment	CGG SA - Equity attributable to owners of CGG SA	Non-controlling interests	Total equity
Balance at January 1, 2023	**712,357,321**	**8.7**	**118.6**	**967.9**	**50.0**	**(20.1)**	**(3.4)**	**(102.4)**	**1,019.3**	**39.5**	**1,058.8**
Net gain (loss) on actuarial changes on pension plans (1)				(4.6)					(4.6)		(4.6)
Net gain (loss) on cash flow hedges (2)							2.0		2.0		2.0
Net gain (loss) on translation adjustments (3)								14.8	14.8	(0.6)	14.2
Other comprehensive income (1)+(2)+(3)	**-**	**-**	**-**	**(4.6)**	**-**	**-**	**2.0**	**14.8**	**12.2**	**(0.6)**	**11.6**
Net income (4)				12.9					12.9	3.3	16.2
Comprehensive income (1)+(2)+(3)+(4)	**-**	**-**	**-**	**8.3**	**-**	**-**	**2.0**	**14.8**	**25.1**	**2.7**	**27.8**
Exercise of warrants	23,794		0.1						0.1		0.1
Dividends									-	(1.0)	(1.0)
Cost of share-based payment	1,295,143			2.6					2.6		2.6
Transfer to retained earnings of the parent company									-		-
Variation in translation adjustments generated by the parent company					(22.7)				(22.7)		(22.7)
Changes in consolidation scope and other				1.6				(3.2)	(1.6)	0.3	(1.3)
Year ended December 31, 2023	**713,676,258**	**8.7**	**118.7**	**980.4**	**27.3**	**(20.1)**	**(1.4)**	**(90.8)**	**1,022.8**	**41.5**	**1,064.3**

The accompanying notes are an integral part of the consolidated financial statements.

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NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

CGG S.A. ("the Company"), along with its subsidiaries (together, the "Group") is a global geoscience technology and scientific High Performance Computing (HPC) leader. Employing around 3,500 people worldwide, CGG provides a comprehensive range of data, products, services and solutions in the fields of earth sciences, data science, sensing and monitoring. The Group's unique portfolio helps its clients to more efficiently and responsibly solve complex digital, energy transition, natural resource, environmental and infrastructure challenges.

As the Company is listed in a European country, and pursuant to European Regulation (EU) no. 1606/2002 dated July 19, 2002, the consolidated financial statements for the year ending December 31, 2023 have been prepared in accordance with International Financial Reporting Standards ("IFRS") and their interpretations, as issued by the International Accounting Standards Board (IASB) and as adopted by the European Union and in force at December 31, 2023.

The consolidated financial statements for the year ending December 31, 2023 were authorized for issue by the Board of Directors on March 6, 2024 and will be submitted to the General Meeting for approval in 2024.

1.1 Summary of significant accounting policies

The significant accounting policies applied by the Group are described below. The accounting policies related to the accounts impacted by the judgments and estimates are particularly important to reflect our financial position and results of operations. As we must exercise significant judgment when we apply these policies, their application is subject to an inherent degree of uncertainty.

These accounting policies are consistent with those used to prepare our consolidated financial statements as at December 31, 2022, except for the first-time adoption of the following standards, amendments, and interpretations:

- Amendments to IAS 1 "Presentation of Financial Statements" and IFRS Practice Statement 2: Disclosure of Accounting policies;
- Amendments to IAS 8 "Accounting policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates";
- Amendments to IAS 12 "Income Taxes": Deferred Tax related to Assets and Liabilities arising from a Single Transaction.

These newly-adopted standards and interpretations have no impact on the consolidated financial statements.

- Amendments to IAS 12 "Income Tax": International Tax Reform – Pillar II Rules;

The review of the Pillar II amendment is underway in order to measure its potential effects on the consolidated accounts (see below).

At the date of issuance of these consolidated financial statements, the following Standards, Amendments, and Interpretations were adopted by the European Union but were not effective:

- Amendments to IAS 1 "Presentation of Financial Statements": Classification of Liabilities as Current or Non-current and Non-current Liabilities with Covenants;
- Amendment to IFRS 16 "Leases": Lease liability arising from a sale and leaseback.

The Group does not expect these standards to have a material impact on the consolidated financial statements.

The Group has not applied the following Standards, Amendments, and Interpretations not adopted by the European Union at the date of issuance of these consolidated financial statements:

- Amendments to IAS 7 "Statement of Cash Flows" and IFRS 7 Financial Instruments: Disclosures: Supplier Financing Arrangements;
- Amendments to IAS 21 "Effects of Changes in Foreign Currency Prices": Lack of convertibility.

A review of the amendments not yet adopted is currently underway with a view to measuring their potential impact on the consolidated financial statements.

Pillar II amendment Adoption

Further to the OECD Pillar II recommendation leading to the creation a minimum tax regime for large international organizations in November 2021, the European Union adopted on December 14, 2022 a Directive making this regime effective from January 1, 2024 or the date of transposition by EU Member States if later. EU member States are required to transpose the Directive before December 31, 2023 and France has voted such transposition as part of the 2024 Finance Bill.

The so-called "Pillar II rules" are therefore applicable to all entities effectively controlled by CGG SA, either consolidated or not.

The IASB issued in May 2023 an amendment to IAS 12 which includes a mandatory temporary exception to the application of IAS 12 onto Pillar II calculations and tax positions. Such amendment has been formally adopted by the EU in November 2023 and therefore is fully applicable. CGG does not include any deferred tax effects associated with the entry into force of Pillar II in its financial statements as long as the temporary exception applies.

To best prepare for the new obligations arising from Pillar II, the Group has been following all OECD publications and draft legislations released in our countries of operations. At this stage of our work, we do consider that although the Group will probably be subject to the Pillar II rules from January 1, 2024 in certain jurisdictions, no significant tax charge is expected.

1.2 Key items and where to find them

	Consolidated statement of operations	Consolidated statement of financial position	Consolidated statement of cash flows
Continuing operations **Divestment of assets** Sale of CGG stake in Joint Venture Argas	In 2023, the net capital loss from the sale of the stake in Saudi Arabian joint-venture Argas was US$ (1.6) million. *Notes 2, 8 and 28*	At December 31, 2023, there is no remaining assets related to the joint-venture Argas. *Notes 2, 8 and 28*	A net cash inflows of US$2.7 million for the sale of the stake in Saudi Arabian joint-venture Argas. *Notes 2 and 28*
Continuing operations Segment figures	In 2023, Segment Revenue of US$1,124.9 million. Segment Operating Income of US$138.1 million. Segment EBITDAs of US$400.4 million. *Note 19*	At December 31, 2023, the capital employed were US$1.6 billion and US$0.5 billion respectively for our DDE and SMO segments. *Note 19*	Segment EBITDAs of US$400.4 million. Capital expenditures from continuing operations of US$(232.5) million. *Note 19 et 28*
Continuing operations Redundancy costs and Impairment	In 2023, the net result from continuing operations included a loss of US$(37.5) million, broken down into US$(0.9) million of severance costs and US$(36,6) million of impairment. *Notes 21 et 28*	At December 31, 2023, the redundancy provision amounted to US$(0.2) million. *Notes 16*	Net cash flows of US$(1.2) million in respect of redundancy plan. *Note 16*
Discontinued operations **CGG 2021 Plan** Exit from Data Acquisition business	In 2023, profit in respect with discontinued operations of US$12.3 million. *Note 5*	All of the Contractual Data Acquisition businesses have been sold or wind down, including the interest in joint-venture Argas in Saudi Arabia sold in December 2023. *Note 5 et 8*	Net cash flows incurred of US$(21.9) million in respect of Idle Vessel Compensation. *Note 5*

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1.3 Use of judgments and estimates

The preparation of consolidated statement of financial position in accordance with IFRS requires management to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates due to the change in economic conditions, changes in laws and regulations, changes in strategy and the inherent imprecision associated with the use of estimates.

The key judgments and estimates used in the financial statements are summarized in the following table:

Note	Judgments and estimates	Key assumptions
Note 11	Recoverable amount of goodwill and intangible assets	Trajectory and recovery outlook of E&P spending New businesses growth dynamic Discount rate (WACC)
Notes 10 and 21	Recoverable value of Earth Data surveys	Expected sales for each survey
Note 24	Deferred tax assets	Assumptions supporting the achievement of future taxable profits
Note 14	Idle Vessel Compensation (Capacity Agreement)	Shearwater fleet utilization assumptions over the commitment period
Note 12	Off-Market Component (Capacity Agreement)	Market rate over the commitment period as estimated at the “Marine Closing” date
Notes 18 and 19	Revenue recognition	Estimated Geoscience contract completion rates
Note 24	Income tax liabilities – Uncertain tax positions	Estimate of most likely tax amount
Notes 16 and 21	Provisions for restructuring	Assessment of future costs related to restructuring plans
Notes 9 and 13	Discount rate IFRS 16	Assessment of incremental borrowing rate
Note 3	Recoverability of client receivables	Assessment of clients' credit default risk
Notes 9 and 10	Depreciation and amortization of tangible and intangible assets	Useful life of assets
Note 10	Development costs	Assessment of future benefits of each project
Note 16	Post-employment benefits	Discount rate Enrollment rate in post-employment benefit plans Inflation rate
Note 16	Provisions for risks, claims and litigations	Assessment of risks considering court rulings and attorney's positions
Note 8	Valuation of investments in companies accounted for under the equity method	Estimated recoverable value

1.4 Significant accounting principles

1. Basis of consolidation

Our consolidated financial statements include CGG SA and all its subsidiaries.

Subsidiaries are fully consolidated from the date of acquisition, being the date on which we obtain control. They continue to be consolidated until the date when such control ceases. Control is achieved when we are exposed or have rights to variable returns from our involvement with the investee and have the ability to affect those returns through our power over the investee. When we have less than a majority of the voting or similar rights of an investee, we consider all relevant facts and circumstances in assessing whether we have power over the investee, including contractual arrangements with the other holders or potential voting rights.

The financial statements of the subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies. All intra-group balances, transactions, unrealized gains and losses resulting from intra-group transactions and dividends are eliminated in full.

Losses within a subsidiary are attributed to the non-controlling interest even if that results in a deficit balance. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

We use the equity method for investments classified as joint venture. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. The Group effectively owns companies under joint arrangements under which control of the business is shared by virtue of a contractual agreement. Key financial and operational activities require the unanimous consent of the parties sharing control.

2. Foreign currencies

The Group's consolidated financial statements are presented in US dollars. This currency reflects the profile of our revenues, costs and cash flows, which are primarily generated in US dollars, thus providing the best representation of the Group's financial performance.

The functional currency is the currency in which the subsidiaries primarily conduct their business. The functional currency of most of our subsidiaries is the US dollar. Goodwill attributable to subsidiaries is accounted for in the functional currency of the applicable entities.

For the subsidiaries with a functional currency different to US dollar, the financial statements are translated to US dollars using the following method:

- year-end exchange rates are applied to the statement of financial position;
- average annual exchange rates are applied to consolidated statement of operations;
- adjustments resulting from this process are recorded in translation adjustments.

With respect to affiliates accounted for using the equity method, the effects of exchange rate changes on the net assets of the affiliates are recorded under translation adjustments in equity.

Transactions denominated in currencies other than the functional currency are recorded at the exchange rate prevailing on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are revalued at year-end exchange rates. Any resulting gains and losses are included directly in income. Unrealized exchange gains and losses arising from monetary assets and liabilities for which settlement in neither planned nor likely to occur in the foreseeable future are recorded in a separate component of shareholder's equity.

3. Business combinations

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured at the fair value of the consideration transferred at the acquisition date. Goodwill is measured as the difference between (i) the value of the consideration transferred, the amount of any non-controlling interest and, if applicable, the fair value of the previously-held equity interest, and (ii) the fair value of the identifiable assets acquired and liabilities assumed. For each business combination, we measure the non-controlling interest in the acquiree either at fair value or at the proportionate share in the recognized amounts of the acquiree's identifiable net assets. Acquisition costs incurred are expensed and included in administrative expenses.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purposes of impairment testing, goodwill acquired in a business combination is allocated to each of the Group's cash-generating units (or group of cash generating units) that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed of in this circumstance is measured based on the relative values of the operation disposed of and the portion of the cash-generating unit retained.

4. Operating revenues

Revenues from contracts with customers are recognized using the five-step model of the IFRS 15 standard. The following provides a description of the main nature of our performance obligations broken down by business line, the timing of their satisfaction, and detail on the transaction prices and their allocations, if applicable.

CGG presents its financial information under two reporting segments, they were renamed as follows:

- Geophysics, Geology and Reservoir (GGR) reporting segment was renamed into Data, Digital & Energy Transition (DDE):

(i) Geoscience business kept its name as Geoscience (GEO), and

(ii) Multi-Client business was renamed into Earth Data (EDA);

- Equipment reporting segment was renamed into Sensing & Monitoring (SMO).

Data Digital & Energy Transition

Geoscience contracts

Under our Geoscience contracts, we process seismic data for a specific customer. These contracts may encompass one or several performance obligations. For each performance obligation, we recognize the revenues over time as the services are rendered. The measure of revenue recognized is based on the time spent over the total time expected to satisfy the performance obligation. The balance of revenue recognized that has not yet been invoiced to the clients is recorded as an unbilled revenue, i.e. as a contract asset. When the services have been invoiced but have not yet been rendered under the percentage of completion method, the Group recognizes deferred revenues, i.e. a contract liability.

We also recognize revenue related to the sale of software upon delivery of the software and of the access code/key as the case may be, to the client. Software maintenance revenues are recognized over the term of the contract. Where a contract provides for both the sale and maintenance of software, the price allocation is based on the stand-alone selling price of each service and the software revenue is recognized upon delivery, while the maintenance revenue is recognized over the term of the contract. In most cases, we issue only one invoice, issued upon license delivery, and the amount corresponding to maintenance is recorded as deferred revenues, i.e. as a contract liability, at invoicing.

We also provide geological consulting services or training for specific customers. We recognize the revenues over time as the services are rendered.

We provide licenses to use geological data to several clients. We recognize the revenue upon delivery of the data to the client.

In addition, we provide licenses to access dynamic geological databases for a specific duration. We recognize the revenue related to such licenses over the duration of the contract. In most cases, only one invoice is issued for such contracts at the beginning of the year and the total amount is recorded as deferred revenues, as a contract liability, at invoicing.

Earth Data after sales contracts and prefunding contracts

Pursuant to our Earth Data contracts, we provide non-exclusive licenses to use seismic processed data to several clients. We recognize the revenue upon delivery of the final data to the client.

In certain cases, significant after sales agreements contain multiple surveys, and the associated revenues are allocated to the various elements based on specific objective evidence of the stand-alone sale price for such elements, regardless of any separate allocations stated within the contract for each element.

In certain circumstances, revenues can also be recognized in respect of a performance obligation that has already been fulfilled in the past. This happens when a customer is already in possession of the license for certain data and either (i) the customer is taken-over by a competitor who does not yet have the license for such data (and is thus required to pay a transfer fee), or (ii) the customer involves another partner, not already having access to the licensed data, for the exploration of a block (farm-in, uplift). Revenues are then recognized when there is an agreement on the fee and, in the case of transfer fees, when the buyer notifies us that they will not return the data to the Group.

Sensing & Monitoring

We recognize revenues on equipment sales upon delivery to the customer, when control is transferred. When such contracts require a partial or total advance payment, such payments are recorded as advance billings to customers, as a contract liability.

In addition to equipment sales, we recognize services as follows :

- Engineering services recognized on a percentage-of-completion basis as costs are incurred;
- Repair services recognized upon delivery, i.e. when control is transferred to the customer;
- Software licenses and related support recognized on transfer of control or percentage-of-completion basis respectively.

Contractual Data Acquisition (classified as discontinued operations)

Pursuant the announcement of the new strategy for the Group in November 2018 and the ensuing actions undertaken, we have presented our contractual data acquisition operations in discontinued operations, in accordance with IFRS 5.

Please refer to note 5 “Assets held for sale and discontinued operations”.

5. Cost of net financial debt

Cost of net financial debt includes:

- the expenses related to long-term financial debt composed of bonds and other loans;
- interest expense on leases;
- other charges paid to financial institutions for financing operations;
- net income from cash and cash equivalents.

6. Income taxes and deferred taxes

Income taxes include all tax based on taxable profit.

Deferred taxes are recognized on all temporary differences between the carrying value and the tax value of assets and liabilities, as well as on carry-forward losses. Deferred tax assets are recognized only when their recovery is considered as probable or when there are existing taxable temporary differences, of an appropriate type, that reverse in an appropriate period. When tax laws limit the extent to which unused tax losses can be recovered against future taxable profits in each year, the amount of deferred tax assets recognized from unused tax losses as a result of suitable existing taxable temporary differences is restricted as specified by the tax law. Recovery of deferred tax asset is assessed at each annual closing.

Deferred tax assets and deferred tax liabilities are not discounted.

7. Intangible and tangible assets

In accordance with IAS 16 “Property, Plant and equipment” and IAS 38 “Intangible assets” only items for which cost can be reliably measured and for which the future economic benefits are likely to flow to us are recorded in our consolidated financial statements.

Property, plant and equipment

Property, plant and equipment are valued at historical cost less accumulated depreciation and impairment losses. Depreciation is generally calculated over the following useful lives:

- equipment and tools: 3 to 10 years;
- vehicles: 3 to 5 years;
- buildings for industrial use: 20 years;
- buildings for administrative and commercial use: 20 to 40 years.

Depreciation expense is determined using the straight-line method.

Residual value is excluded from our calculation of the depreciable amount. We segregate tangible assets into their separate components if there is a significant difference in their expected useful lives, and depreciate them accordingly.

Lease agreements

IFRS 16 standard requires that both a right-of-use asset (the right to use the leased asset) and an associated liability (corresponding to the minimum lease payments) has to be recognized. The right-of-use asset is depreciated on a straight-line basis over the term of the lease. The lease liability, which is initially measured at the present value of lease payments over the term of the lease, is accreted using the interest rate implicit in the lease when that rate is easily determined, or at the incremental borrowing rate. The only exemptions are for short-term leases and leases of low-value assets, and the Group has decided to use them both. Moreover, initial direct costs were not taken into account for the measurement of the right-of-use asset at the date of first-time application from January 1, 2019, the date of first-time application of IFRS 16.

The lease term to be applied for the measurement of lease assets and liabilities is the length of time the lessee is reasonably certain to pursue the lease. For legal purposes, the tacit extension period constitutes an extension of the initial lease, and is used to determine the initial lease term to be recognized when the lessee can reasonably anticipate that it will be in their interest to use said extension and/or the lessor cannot then give notice of termination without incurring a substantial penalty. In this case, the date applied is that on which the lessee is reasonably certain to end the lease after an extension past the initial contractual term date. When an event or significant change in circumstances on the lessee side gives rise to a tacit extension that was not initially anticipated, the lease term is remeasured to reflect the additional time during which the lessee is reasonably certain to pursue the lease.

The assumptions applied to determine the term of the lease are aligned with those applied in respect of the amortization period for non-reusable fixtures.

Goodwill

Goodwill is determined according to IFRS 3 "Revised – Business Combinations". Goodwill is not amortized but subject to an impairment test at least once a year at the statement of financial position dates or when a triggering event occurs.

Earth Data surveys

Earth Data surveys consist of seismic surveys to be licensed to customers on a non-exclusive basis. All costs of data acquisition, processing and finalization of surveys are recognized as intangible assets. Earth Data surveys are valued on the basis of capitalized costs less accumulated amortization, or at recoverable value, if the latter is the lower. The recoverable value of our Earth Data library depends on the expected sales for each survey. An impairment test of all delivered surveys is performed at least when the surveys are available for use and at year-end. Whenever there is an indication that a survey may be impaired, an impairment test is performed.

The Group applies the straight-line amortization method over four years when the survey becomes available for use, in accordance with the industry standard. The depreciable amount is the survey net book value at the date the survey becomes available for use.

Development cost

Expenditures on research activities undertaken with the prospect of gaining new scientific or technological knowledge and understanding are recognized in the income statement as expenses as incurred and are presented as "Research and development expenses – net". Expenditures on development activities, whereby research findings are applied to a plan or design for the production of new or substantially improved products and processes, are capitalized if:

- the project is clearly defined, and costs are separately identified and reliably measured;
- the product or process is technically and commercially feasible;
- we have sufficient resources to complete development; and
- the intangible asset is likely to generate future economic benefits, either because it is useful to us or through an existing market for the intangible asset itself or for its products.

The expenditures capitalized include the cost of materials, direct labor and an appropriate proportion of overhead. Other development expenditures are recognized in the income statement as expenses as incurred and are presented as "Research and development expenses – net".

Capitalized development expenditures are stated at cost net of subsequent subsidies less accumulated amortization and impairment losses.

Capitalized development costs are amortized over five years in "Cost of sales".

"Research and development expenses" in our income statement represent the net cost of development costs that are not capitalized, research costs and government grants acquired for research and development (for the portion not related to capitalized development costs).

Other intangible assets

Other intangible assets consist primarily of customer relationships, technology and trade name acquired in business combinations. Customer relationships are generally amortized over periods ranging from 10 to 20 years and acquired technology are generally amortized over periods ranging from 5 to 10 years.

Impairment of assets

The carrying amounts of the Group's assets (excluding inventories, non-current assets recognized as held for sale as per IFRS 5, deferred tax assets, assets arising from pension plans and financial assets) are reviewed for the purpose of identifying impairment risk, in compliance with IAS 36 "Impairment of assets". Whenever any such indication exists, the recoverable value must be measured. Factors we consider important that could trigger an impairment test include the following:

- significant underperformance relative to expected operating results based upon historical and/or projected data;
- significant changes in the manner of our use of the tested assets or the strategy for our overall business; and
- significant negative industry or economic trends.

The recoverable amount of tangible and intangible assets is the greater of their fair value less costs of disposal and value in use.

Goodwill, assets that have an indefinite useful life and intangible assets are allocated to cash-generating units or groups of cash-generating units whose recoverable value is assessed at least once a year and as soon as an indication of loss of value of a cash-generating unit arises.

We determine the value in use by estimating future cash flows expected from the assets or from the cash-generating units, discounted to their present value using the sector weighted average cost of capital (WACC) estimated on a yearly basis by the Group. When the recoverable amount applied is the fair value less costs to sell, the fair value is determined by reference to the price at which the asset would sell in an orderly transaction between market participants at the measurement date.

We recognize an impairment loss whenever the carrying amount of an asset exceeds its recoverable amount. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Impairment losses are recognized in the statement of operations. Impairment losses recognized in respect of a group of non-independent assets allocated to a cash-generating unit are allocated first to reduce the carrying amount of any goodwill allocated to cash-generating units (group of units) and subsequently, to reduce the carrying amount of the other assets in the unit (group of units) on a pro rata basis, provided that the carrying amount of an individual asset is not reduced below its value in use or fair value less costs of disposal.

A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation or amortization, had no impairment loss been recognized for the asset in prior years.

Impairment losses recognized on goodwill cannot be reversed.

Non-current assets held for sale and discontinued operations

Non-current assets and disposal groups comprising assets and liabilities that are expected to be recovered primarily through sale rather than through continuing use are classified as held for sale. They are valued at the lower of carrying amount and fair value less costs to sell.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the consolidated statement of financial position. The liabilities of a disposal group are presented separately from other liabilities in the consolidated statement of financial position.

A discontinued operation is a component of an entity that has either been disposed of or is classified as held for sale, and represents a separate major line of business or geographical area of operations or is a part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations; or is a subsidiary acquired exclusively with a view to resale.

Any gains or losses from disposals, together with the results of these operations until the date of disposal, are reported separately as discontinued operations in the consolidated statement of operations, in the consolidated statement of cash flows and in the appended notes. The prior periods are restated accordingly.

Further information on discontinued operations can be found in note 5.

8. Investments in companies accounted for under the equity method

Under the equity method, the investments in our associates or joint ventures are carried in the statement of financial position at cost plus post acquisition changes in our share of net assets of the associates or joint ventures. Goodwill relating to the associates is included in the carrying amount of the investment and is neither amortized nor individually tested for impairment.

After application of the equity method, we determine whether it is necessary to recognize an additional impairment loss on our investment in the associates. We determine at each reporting date whether there is any objective evidence that the investments in our associates are impaired. If this is the case we calculate the amount of impairment as the difference between the recoverable amount of the associates and their carrying value and usually recognize the amount in the 'share of profit of an associate' in the statement of operations.

From the date when an investment ceases to be an associate or a joint venture and becomes a financial asset we discontinue the use of the equity method. The retained interests are measured at fair value. We recognize in profit or loss any difference between (i) the fair value of any retained interest and any proceeds from disposing of a part interest in the associate or joint venture; and (ii) the carrying amount of the investment at the date the equity method was discontinued.

9. Investments, other non-current and current financial assets

Investments and other financial assets include investments in non-consolidated entities, loans and non-current receivables.

Investments and other financial assets currently in our statement of financial position are measured at fair value through profit and loss. The fair value for listed securities is their market price at the statement of financial position date. If a reliable fair value cannot be established, securities are valued at historical cost.

10. Treasury shares

We value treasury shares at their cost, as a reduction of shareholders' equity. Proceeds from the sale of treasury shares are included in shareholders' equity and have no impact on the statement of operations.

11. Inventories

We value inventories at the lower of cost (including direct production costs where applicable) and net realizable value.

We calculate the cost of inventories on a weighted average price basis.

The additions and deductions in valuation allowances for inventories and work-in-progress are presented in the consolidated statement of operations as "Cost of sales".

12. Trade accounts and notes receivable

In the Data Digital & Energy Transition ("DDE") segments, customers are generally large national or international oil and gas companies, which management believes reduces potential credit risk.

In the Sensing & Monitoring segment, a significant portion of sales is paid by irrevocable letters of credit.

The Group applies the simplified expected credit loss model. Expected credit losses are immaterial due to the composition of the Group client portfolio. The latter maintains an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information. Credit losses have not been material for the periods presented and have consistently been within management's expectations.

Contract assets represent the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer when that right is conditioned by something other than the passage of time (e.g. revenue recognized from the application of the Percentage of Completion method before the Group has a right to invoice).

13. Provisions

We record a provision when the Group has a present obligation (legal or constructive) as a result of a past event for which it is probable that an outflow of resources embodying economic benefits (that can be reliably determined) will be required to settle the obligation.

Onerous contracts

We record a provision for onerous contracts equal to the excess of the unavoidable costs of meeting the obligations under the contract over the economic benefits expected to be received under it, as estimated by the Group.

Pension and other post-employment benefits

We record obligations for contributions to defined contribution pension plans as an expense in the income statement as incurred. We do not record any provision for such plans as we have no further obligation.

Our net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods. We perform the calculation by using the projected unit credit method.

The methodology of calculation and booking of the defined benefit pension plan is as follows:

- the benefit is discounted to determine its present value, and the fair value of any plan assets is then deducted;
- net interest is calculated by applying the discount rate to the net defined benefit liability or asset. Interest is recorded in the profit and loss;
- past service costs are recognized as an expense when a plan amendment or curtailment occurs;
- we record actuarial gains and losses on defined benefits plans directly in equity.

Warranty for sales of geophysical equipment

The geophysical equipment we sell come with a customer warranty. The duration and cover provided by these warranties are in line with standard industry practice. A provision is therefore recorded on the basis of the estimated cost of the warranties by product line in respect of products sold. This provision is reversed when the warranty expires or is used.

14. Financial debt

Bond debts and other interest-bearing loans are initially recognized at their fair value less transaction costs directly attributable to the issuance of the debt. These financial liabilities are then valued at their amortized cost using the effective interest method. Where applicable, the financial debt is increased by capitalized interest.

15. Other financial liabilities (Idle Vessel Compensation)

The Idle Vessel Compensation was initially recorded at fair value, i.e. the present value of estimated disbursements based on fleet utilization assumptions over the commitment period. This financial liability was subsequently carried at amortized cost. The effects of changes in assumptions on the financial liability amount are recorded in the consolidated statement of operations under "Other financial income (loss)" *(note 14)*.

16. Derivative financial instruments

Recognition and presentation of hedging instruments

The Group uses over-the-counter financial instruments to hedge its exposure to foreign exchange risk arising activities denominated in currencies different from its functional currency. We may also use interest rate swaps to limit our exposure to variations in said rates. In accordance with our treasury policy, we do not hold or issue derivative financial instruments for trading purposes. However, derivatives that do not qualify for hedge accounting are accounted for as trading instruments in "Other financial income (loss)".

Over-the-counter derivatives are entered into in the frame master agreements that provide a right of set-off in the event of default, insolvency or bankruptcy of one of the parties to the agreement (those netting agreements do not fulfill IAS 32 criteria to offset the fair value of derivatives on the statement of financial position).

Exchange gains or losses on foreign currency financial instruments that represent the efficient portion of an economic hedge of a net investment in a foreign subsidiary are reported as translation adjustments in equity under "Translation adjustments", the inefficient portion being recognized in the statement of operations. The cumulative value of foreign exchange gains and losses recognized directly in equity will be transferred to statement of operations when all or part of the foreign subsidiary is sold.

Where derivatives qualify for cash flow hedge accounting, we account for changes in the fair value of the effective portion of the hedging instruments in equity. The ineffective portion is recorded in "Other financial income (loss)". Amounts recorded in other comprehensive income are reclassified into the statement of operations when the hedged risks impact the statement of operations.

Recognition and presentation of derivatives not qualifying for hedge accounting

Derivative instruments not qualifying for hedge accounting are measured at fair value upon initial recognition. The fair value of derivatives not qualifying for hedge accounting is subsequently remeasured at each reporting date and any successive variations in fair value are immediately recognized in the consolidated statement of operations for that period under "Other financial income (loss)" Derivative financial instruments are presented in the statement of financial position under current items, for derivatives expiring in under 12 months, and non-current items for other derivatives.

17. Other liabilities (Off-Market Component)

This item pertains to an operating liability initially recognized at fair value, i.e. the present value of the difference between the day rate set by the Capacity Agreement and the estimated market rate over the period of the five-year commitment. This liability is reversed at its rate of consumption, i.e. usage per day as set out in the Capacity Agreement, over the term of the contract *(note 12)*.

18. Cash flow statement

The cash flows of the period are presented in the cash flow statement within three activities: operating, investing and financing activities:

Operating activities

Operating activities are the principal revenue-producing activities of the entity and other activities that are not investing or financing activities.

Investing activities

Investing activities are the acquisition and disposal of long-term assets and other investments not included in cash equivalents. When a subsidiary is acquired, a separate item, corresponding to the consideration paid net of cash and cash equivalents held by the subsidiary at the date of acquisition, provides the cash impact of the acquisition.

Investments in Earth Data surveys are presented net of depreciation and amortization capitalized in Earth Data surveys. Depreciation and amortization capitalized in Earth Data surveys are also restated in operating activities.

Financing activities

Financing activities are transactions involving equity financing and borrowings taken out by the entity.

They include the cash impact of financial expenses and lease repayments.

Cash and cash equivalents

Cash and cash equivalents in the consolidated statement of financial position comprise cash at banks and on hand and short-term deposits with a maturity of three months or less that are readily convertible to known amounts of cash.

19. Share-based payments, including stock options

Employees (including senior executives) of the Group receive remuneration in the form of share-based payments. These rights can be settled either in equity (equity-settled transactions) or in cash (cash-settled transactions).

Equity-settled transactions

We include stock options granted to employees in the financial statements using the following principles: the stock option's fair value is determined on the grant date and is recognized in personnel costs, with a corresponding increase in equity, on a straight-line basis over the period between the grant date and the end of the vesting period. We calculate stock option fair value using the Monte-Carlo mathematical model.

Cash-settled transactions

The cost of cash-settled transactions is measured initially at the grant date using a binomial model. A provision is recognized over the period until the vesting date. This liability is re-measured at fair value at each reporting date up to and including the settlement date, with changes in fair value recognized in the statement of operations.

20. Grants

Government grants, including non-monetary grants at fair value, are not recognized until there is reasonable assurance that the entity will comply with the conditions of the grant and that the grants will be received.

Government grants are recognized as income over the periods necessary to match them with the related costs which they are intended to compensate. They are presented as a reduction of the corresponding expenses in the item “Research and development expenses, net” in the statement of operations.

Refundable grants are presented in the statement of financial position as “Other non-current liabilities”.

21. Earnings per share

Basic earnings per share amounts are calculated by dividing net income (loss) for the year attributable to ordinary equity holders of the Company by the weighted average number of ordinary shares outstanding during the year.

When the net income (loss) for the year is a profit, a diluted earnings per share amounts are calculated by dividing the net income attributable to ordinary equity holders of the Company, by the weighted average number of ordinary shares outstanding during the year plus the weighted average number of ordinary shares that would be issued on the exercise of stock options and shares from performance share plans.

NOTE 2 SIGNIFICANT EVENTS, ACQUISITIONS AND DIVESTITURES

Sale of Argas

On December 11, 2023, CGG sold its entire stake (49%) in the saudi arabian company Arabian Geophysical and Surveying Company (ARGAS) to the saudi arabian company Industrialization and Energy Services Company (TAQA) for a total cash consideration of US$2.7 million.

The net proceeds amount to a US$ (1.6) million loss in our 2023 consolidated statement of operations. Cash inflows less costs to sell amounts to US$2.7 million.

This sale marks a final step in the strategic plan launched back in 2018 to become an asset-light company, by exiting the data acquisition services business and strengthening the focus on our differentiated high-end technology businesses.

NOTE 3 TRADE ACCOUNTS AND NOTES RECEIVABLE

Analysis of trade accounts and notes receivable is as follows:

In millions of US$	December 31 2023	2022
Trade accounts and notes receivable, gross – current portion	267.7	283.8
Less: allowance for doubtful accounts – current portion	(22.1)	(30.2)
Trade accounts and notes receivable, net – current portion	**245.6**	**253.6**
Contract assets	65.3	54.7
TOTAL TRADE ACCOUNTS AND NOTES RECEIVABLE	**310.9**	**308.3**

Allowances for doubtful accounts only relate to overdue receivables at the closing date.

As of December 31, 2023, the ageing analysis of net trade accounts and notes receivable is as follows :

In millions of US$	Not past due	30 days	30-60 days	60-90 days	90-120 days	> 120 days	Total
Trade accounts and notes receivable, gross	151.8	24.0	14.3	4.5	12.4	60.7	267.7
Less: Allowance for doubtful accounts	0.0	0.0	0.0	• 0.0	0.0	(22.1)	(22.1)
Trade accounts and notes receivable, net	**151.8**	**24.0**	**14.3**	**4.5**	**12.4**	**38.6** [(a)]	**245.6**

(a) Includes net receivables ONGC related to Arbitration proceedings.

As of December 31, 2022, the ageing analysis of net trade accounts and notes receivable is as follows :

In millions of US$	Not past due	30 days	30-60 days	60-90 days	90-120 days	> 120 days	Total
Trade accounts and notes receivable, gross	154.6	30.1	10.6	8.3	4.3	75.9	283.8
Less: allowance for doubtful accounts	0.0	0.0	0.0	0.0	0.0	(30.2)	(30.2)
Trade accounts and notes receivable, net	**154.6**	**30.1**	**10.6**	**8.3**	**4.3**	**45.7** [(a)]	**253.6**

(a) Includes net receivables ONGC related to Arbitration proceed.

Litigation

ONGC Arbitration proceedings in India

On March 18, 2013, CGG Services SAS, a fully owned subsidiary of CGG SA, initiated arbitration proceedings against ONGC, an Indian company, to recover certain unpaid amounts under three commercial contracts entered into by ONGC and CGG Services SAS on one hand and ONGC and Wavefield Inseis AS on the other hand, between 2008 and 2010.

The Arbitration Tribunal issued an award in favor of CGG on July 26, 2017. ONGC submitted an appeal against the Tribunal award on October 27, 2017. On January 6, 2020, ONGC's application to set aside the Tribunal awards was dismissed by the Bombay High Court without costs. ONGC submitted an appeal against the Bombay High Court's decision on March 2, 2020. On March 3, 2021, the Court ordered and ONGC made a deposit of INR 2,686,439,944 to the Bombay High Court, equivalent to approximately 36 million US dollars as per the exchange rate at the time. Interests have been applied to such secured deposit.

At the date the financial statements were approved, legal proceedings are still ongoing and CGG continues to seek payment enforcement.

Factoring agreements

There were no factoring agreements at December 31, 2023 nor at December 31, 2022.

NOTE 4 INVENTORIES, WORK IN PROGRESS, INCOME TAX ASSETS AND OTHER CURRENT ASSETS

	December 31, 2023			December 31, 2022		
In millions of US$	Gross value	Valuation Allowance	Net value	Gross value	Valuation Allowance	Net value
Consumables and spares parts	-	-	-	0.1	-	0.1
Raw materials and sub-assemblies	88.9	(14.6)	74.3	95.1	(12.8)	82.3
Work in progress	141.6	(22.4)	119.2	154.0	(17.2)	136.8
Finished goods	39.6	(20.2)	19.4	51.7	(13.7)	38.0
INVENTORIES AND WORK IN PROGRESS	**270.1**	**(57.2)**	**212.9**	**300.9**	**(43.7)**	**257.2**

Variation of inventories and work in progress

VARIATION OVER THE PERIOD

	December 31	
In millions of US$	2023	2022
Balance at beginning of period	**257.2**	**197.3**
Variations	(37.0)	64.8
Movements in valuation allowance [(a)]	(12.2)	3.7
Translation adjustments	4.9	(12.0)
Change in consolidation scope [(b)]	-	2.3
Other	-	1.1
BALANCE AT END OF PERIOD	**212.9**	**257.2**

(a) Mainly concerns reversals of provisions for scrapped inventories in the SMO segment in 2022.
(b) Related to the acquisition of Geocomp and Ion in 2022.

Derecognition of French research tax credit asset

Research tax credit asset is included into account "Income tax assets".

During September 2023, CGG SA derecognized from balance sheet three research tax credit assets for the years 2020, 2021 and 2022 which were assigned to la Banque Postale Leasing & Factoring. This transaction resulted in a cash inflow of US$22,7 million after a fee of US$2,6 million disclosed in other financial expenses and a 5% deposit calculated on each year disclosed in "Other non current financial assets".

The research tax credit assets for the years 2019 were normally reimbursed by the french tax department during the year 2023 for US$9.4 million.

The risk associated with a tax audit that could lead to a claim for the research tax credit repayment is considered unlikely by the group.

In million of US$	2023
Research tax credit derecognized - Gross	26,6
Fee	(2,6)
Deposit	(1,3)
Research tax credit reimbursed - Net	22,7

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Other current assets

	December 31	
In millions of US$	**2023**	**2022**
Personnel and other tax assets	26.6	44.6
Fair value of financial instruments	-	2.8
Restricted cash	10.5	9.6
Prepaid expenses Other	34.1	16.5
Supplier prepayments	11.7	11.5
Other receivables	9.2	14.9
OTHER CURRENT ASSETS	**92.1**	**99.9**

NOTE 5 ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS

Net income (loss) from discontinued operations

	December 31	
In millions of US$	**2023**	**2022**
Operating revenues	-	-
Operating expenses	10.9	3.3
Other revenues (expenses) – net	2.3	(1.4)
Operating income	**13.2**	**1.9**
Other financial income (loss)	(1.7)	(7.1)
Income taxes	0.8	0.7
NET INCOME (LOSS) FROM DISCONTINUED OPERATIONS	**12.3**	**(4.5)**

For the financial year ended December 31, 2023, the net income from discontinued operations amounted to US$12.3 million and was impacted by the main following items:

(i) US$(1.9) million of financial expenses in relation with the Idle Vessel Compensation discount *(note 14)*;

(ii) US$10.7 million in operating income mainly associated with the unused reversal of legal costs provision following the litigation settlement with Fugro for US$1.8 million, the reversal of provisions related to Marine Data Acquisition and the reversal of a bad debt depreciation for US$2.3 million, following a favorable development in a dispute related to Land Data Acquisition; and

(iii) US$2.5 million of other revenues including a reversal of restructuring provision of US$1.2 million and US$0.9 million of revenue from the sale of land acquisition equipment.

For the financial year ended December 31, 2022, the net income from discontinued operations amounted to US$(4.5) million and was impacted by the main following items:

(iv) US$(7.1) million of financial expenses in relation with the Idle Vessel Compensation of which US$(2.7) million of discount of the Idle Vessel Compensation as well as US$(4.4) million increase of the Idle Vessel Compensation liability following revised assumptions on Shearwater fleet utilization over the remaining commitment period of the Capacity Agreement *(note 14)*;

(v) US$(2.0) million of provision for a litigation from Land Data Acquisition business. Pursuant the agreement terms for the sale of CGG's stake in SBGS to Fugro in 2020, the provision is related to a request for partial reimbursement made by Fugro for costs incurred due to an intellectual property dispute in relation with SBGS;

(vi) US$2.3 million regarding the reversal of a provision for withholding taxes related to Marine Data Acquisition and Multi-Physics businesses; and

(vii) US$1.8 million for the reversal of an accrual for personnel costs (social contributions and personnel income tax).

Net cash flows incurred by discontinued operations

The net cash flow from discontinued operations for each period is presented below:

In millions of US$	December 31 2023	2022
Net cash flow from operating activities	(1.6)	-
Net cash flow used in investing activities	0.5	-
Net cash flow from financing activities	(21.9)	(21.9)
Impact of changes in consolidation scope	-	-
NET CASH FLOWS GENERATED BY DISCONTINUED OPERATIONS	**(23.0)**	**(21.9)**

In 2023, the net cash flow generated by discontinued operations included US$(21.9) million of Idle Vessel Compensation.

In 2022, the net cash flow generated by discontinued operations included US$(21.9) million of Idle Vessel Compensation.

NOTE 6 ASSETS VALUATION ALLOWANCE

	December 31, 2023				
In millions of US$	Balance at beginning of year	Additions	Deductions	Other [(a)]	Balance at end of period
Trade accounts and notes receivable	30.2	1.7	(8.5)[(b)]	(1.3)	22.1
Inventories and work-in-progress	43.7	13.9	(1.7)	1.3	57.2
Tax assets	4.1	-	-	(0.1)	4.0
Other current assets	3.2	0.4	(0.3)	-	3.3
TOTAL ASSETS VALUATION ALLOWANCE	**81.2**	**16.0**	**(10.5)**	**(0.1)**	**86.6**

(a) Includes effects of translation adjustments and changes in the scope of consolidation.
(b) Corresponds to reversals of customer provisions. Includes a reversal of a bad debt for US$2.3 million following a favorable development in a dispute related to Land Data Acquisition

	December 31, 2022				
In millions of US$	Balance at beginning of year	Additions	Deductions	Other [(a)]	Balance at end of period
Trade accounts and notes receivable	32.4	0.4	(3.3)	0.7	30.2
Inventories and work-in-progress	50.0	0.9	(4.6)	(2.6)	43.7
Tax assets	6.1	-	(2.0)	-	4.1
Other curent assets	5.2	-	(1.7)	(0.3)	3.2
TOTAL ASSETS VALUATION ALLOWANCE	**93.7**	**1.3**	**(11.6)**	**(2.2)**	**81.2**

(a) Includes effects of translation adjustments and changes in the scope of consolidation.

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NOTE 7 INVESTMENTS, OTHER NON-CURRENT AND CURRENT FINANCIAL ASSETS

In millions of US$	2023	2022
Non-consolidated investments [(a)]	-	1.0
Loans and advances	-	0.1
Deposits and other [(b)]	22.7	17.3
Investments and other financial assets	**22.7**	**18.4**
Others	-	0.1
Other current financial assets	-	**0.1**
TOTAL INVESTMENTS, OTHER FINANCIAL ASSETS AND OTHER CURRENT FINANCIAL ASSETS	**22.7**	**18.5**

(a) The shares in Interactive Network Technologies Inc. were sold in December 2023. There is no existing restriction or no commitment between CGG and the non-consolidated investments.

(b) Of which, at December 31, 2023, the amount of pledged financial assets is US$22.0 million which is mainly related to customer contracts and building rentals from SMO segment

NOTE 8 INVESTMENTS IN COMPANIES ACCOUNTED FOR UNDER THE EQUITY METHOD

			December 31	
In millions of US$	**Country/Head office**	**% interest held**	**2023**	**2022**
DDE				
Reservoir Evaluation Services LLP	Kazakhstan/Almaty	49.0%	1,1	0.3
Versal AS	Norway/Oslo	33.3%	1,1	1.5
Contractual Data Acquisition				–
Argas	Saudi Arabia/Al-Khobar	0.0%	-	9.0
INVESTMENTS IN COMPANIES ACCOUNTED FOR UNDER THE EQUITY METHOD			**2.2**	**10.8**

Argas

On December 11, 2023, our stake in Argas (49%) was sold to the saudi arabian company Industrialization and Energy Services Company (TAQA). This sale generated a capital loss, net of exchange effects, of US$1.6 million *(note 2 and note 28)*.

Reservoir Evaluation Services

The carrying value increased from US$0.3 million as of December 31, 2022 to US$1.1 million as of December 31,2023 due to the recognition of current year share of income.

During 2023, the Reservoir Evaluation Services LLP joint venture benefited from the completion of a major geophysical imaging subcontract for Veritas Caspian LLC.

The variation of “Investments in companies accounted for under the equity method” is as follows:

In millions of US$	December 31 2023	December 31 2022
Balance at beginning of period	10.8	**28.1**
Change in consolidation scope [(a)]	(6.4)	-
Investments made during the year		-
Share of income (loss) [(a)]	(2.0)	(0.3)
Impairment [(b)]		(18.2)
Capital increase [(c)]		1.5
Dividends received during the period and return of capital		(0.3)
Translation adjustments and other	(0.2)	-
BALANCE AT END OF PERIOD	**2.2**	**10.8**

(a) Net book value of ARGAS at the date of the sale.
(b) Includes the 2023 net loss of Argas.
(c) The remeasurement to recoverable value of our stake in Argas and Reservoir Evaluation Services LLP triggered an impairment loss of respectively US$16.0 million and US$2.2 million in our 2022 consolidated statement of operations.
(d) Versal AS capital increase in 2022.

For transactions with investments in companies accounted for under the equity method, please see note 27 “Related party transactions”.

NOTE 9 PROPERTY, PLANT AND EQUIPMENT

In millions of US$	2023 Gross	2023 Accumulated depreciation	2023 Net	2022 Gross	2022 Accumulated depreciation	2022 Net
Land	4.7	-	4.7	4.7	-	4.7
Buildings	173.4	(107.9)	65.5	126.8	(102.1)	24.7
Machinery & Equipment	271.4	(239.6)	31.8	269.4	(234.5)	35.0
Other tangible assets	115.9	(103.2)	12.8	132.8	(100.7)	32.1
Right-of-use assets	211.9	(120.6)	91.3	179.2	(108.4)	70.8
– Property	124.6	(88.7)	35.9	115.2	(77.1)	38.2
– Machinery & Equipment	87.3	(31.9)	55.4	64.0	(31.3)	32.6
TOTAL PROPERTY, PLANT AND EQUIPMENT	**777.3**	**(571.3)**	**206.1**	**712.9**	**(545.7)**	**167.3**

Short-term leases and leases of low-value assets

As allowed by IFRS 16, the Group decided to use exemptions for short-term leases (<12 months) and leases of low-value assets (<US$5,000), which were not material neither at December 31, 2023 nor at December 31, 2022.

Revenues from subleases

The Group signed arrangements with third parties to sublease leased real estate assets. The income generated by these sub-lease agreements, which are classified as operating leases, was not material neither at December 31, 2023 nor at December 31, 2022.

Variation over the period

In millions of US$	December 31 2023	December 31 2022
Balance at beginning of period	**167.3**	**212.1**
Acquisitions [(a)]	100.3	62.3
Depreciation [(b)]	(60.5)	(59.7)
Disposals	(4.8)	(0.1)
Sale & leaseback [(c)]	-	(42.2)
Translation adjustments	2.4	(7.8)
Change in consolidation scope	0.2	6.9
Impairment of assets	-	(1.6)
Reclassification of tangible assets as “Assets held for sale”	-	-
Other[(d)]	1.2	(2.6)
BALANCE AT END OF PERIOD	**206.1**	**167.3**

(a) *Including US$55.1 million additional right-of use assets in 2023, compared to US$30.2 million in 2022.*

(b) *Including US$37.7 million depreciations of right-of-use assets in 2023, compared to US$34.5 million in 2022.*

(c) *In 2022, related to the sale and leaseback of CGG headquarters. US$(54.1) million for disposal of assets following the sale of the headquarters and US$11.9 million for the right-of-use assets derived from the leaseback.*

(d) *Including the renegotiation impact of leases in UK for 1,3m$ in 2023.*

Reconciliation of acquisitions with the consolidated statements of cash flows and capital expenditures in note 19

In millions of US$	December 31 2023	December 31 2022
Acquisitions of tangible assets, excluding leases	45.2	32.1
Capitalized development costs *(notes 10 and 20)*	16.8	21.3
Acquisitions of other intangible assets, excluding Earth Data surveys *(note 10)*	0.3	0.4
Change in fixed asset suppliers	(1.4)	0.7
Reclassification of tangible assets in "Assets held for sale"	-	-
TOTAL PURCHASES OF TANGIBLE AND INTANGIBLE ASSETS ACCORDING TO CASH FLOW STATEMENT (“CAPITAL EXPENDITURES”)	**60.9**	**54.5**

NOTE 10 INTANGIBLE ASSETS

	December 31					
	2023			2022		
In millions of US$	Gross	Accumulated depreciation	Net	Gross	Accumulated depreciation	Net
Earth Data surveys - Marine	5,680.9	(5,223.0)	457.9	5,562.6	(5,143.5)	419.1
Earth Data surveys - Land	-	-	-	-	-	-
Capitalized development costs	411.2	(321.7)	89.5	393.6	(305.5)	88.1
Software	78.4	(76.7)	1.7	76.5	(75.0)	1.5
Customer relationships	203.9	(187.3)	16.6	218.4	(194.6)	23.8
Other intangible assets	216.6	(202.6)	14.0	209.4	(187.7)	21.7
TOTAL INTANGIBLE ASSETS	**6,591.0**	**(6,011.3)**	**579.7**	**6,460.5**	**(5,906.3)**	**554.2**

Variation over the period

	December 31	
In millions of US$	2023	2022
Balance at beginning of period	**554.2**	**520.7**
Increase in Earth Data surveys	186.5	221.3
Capitalized development costs	16.8	21.3
Other acquisitions	0.3	0.4
Amortization and impairment on Earth Data surveys [(a)]	(153.1)	(171.4)
Other depreciation	(31.0)	(30.8)
Disposals	0.1	(28.5)
Translation adjustments	7.2	0.2
Change in consolidation scope [(b)]	(1.8)	20.6
Other	0.5	0.4
BALANCE AT END OF PERIOD	**579.7**	**554.2**

(a) Includes US$(33.1) million and S$(17.3) million of impairment loss in 2023 and 2022, respectively.
(b) Related to purchase price allocation adjustment of Ion in 2023 and to purchase price allocation of Liss, Geocomp and Ion in 2022.

Earth Data library

Impairment test and key assumptions

The recoverable value of our Earth Data library depends on the expected sales for each survey. The sales forecasts are subject to numerous change factors such as the survey location, the basin dynamics depending on the lease rounds, the political, economic and tax situation in the country, the operators expectations and are revised regularly. The expected sales are discounted at a 10 % discount rate to reflect the specific risk profile of these data library activities with finite amortization periods of four years.

Impairment loss

In 2023, Earth Data surveys have been impaired for US$(33.1) million as a consequence of the downward revision of sales forecasts for surveys mostly in Brazil, US Gulf of Mexico, Norway and Australia (*note 28*).

In 2022, Earth Data surveys have been impaired for US$(17.3) million as a consequence of (i) the downward revision of sales forecasts for certain surveys in Brazil and United-Kingdom and (ii) the agreement between government and anti-oil factions to seriously delay licensing rounds until after 2025 in the area of one specific survey in Norway *(note 21).*

Sensitivity to changes in assumptions

An increase by 50 basis points of the discount rate would reduce by approximately US$(3.3) million the net present value of the expected sales of our Earth Data library. It would trigger an impairment loss of about US$(0.9) million.

A reduction by 10% of the expected sales in 2025 and 2026 would reduce by approximately US$(17.6) million the net present value of expected sales. It would trigger an impairment loss of about US$(5.7) million.

Reconciliation of acquisitions with the consolidated statement of cash flows and capital expenditures in note 19

In millions of US$	December 31 2023	2022
Investments in Earth Data surveys	186.5	221.3
Amortization & depreciation capitalized in Earth Data surveys	(15.4)	(16.0)
INVESTMENT IN EARTH DATA SURVEYS ACCORDING TO CASH-FLOW STATEMENT	**171.1**	**205.3**

NOTE 11 GOODWILL

Goodwill is analyzed as follows:

Variation over the period

In millions of US$	December 31 2023	2022
Balance at beginning of period	**1,089.4**	**1,083.6**
Additions	-	-
Impairment	-	-
Perimeter change [(a)]	2.5	12.4
Translation adjustments	3.6	(6.6)
BALANCE AT END OF PERIOD	**1,095.5**	**1,089.4**

(a) Related to the Purchase Price Allocation adjustment of Ion in 2023, and related to Purchase Price Allocation of Geocomp, Liss, and Ion companies' in 2022, all parts of the SMO CGU.

Impairment tests

The Group management performs at least one annual impairment test, at each balance sheet date, on the goodwill, intangible assets and indefinite-life assets allocated to the cash-generating units (CGU) to assess whether an impairment loss needs to be recognized.

These tests are also performed whenever there is any indication of potential loss of value.

The information disclosed in this note corresponds to the estimated discounted cash flows at the balance sheet date and capital employed as of December 31, 2023.

The recoverable amount corresponds to the value in use of the assets, cash-generating units or group of cash-generating units, defined as the estimated discounted cash flows.

A cash-generating unit refers to a homogeneous group of assets generating cash inflows that are largely independent of the cash inflows from other groups of assets.

The Group's continuing operations are divided into three cash-generating units (CGU): Geoscience CGU, EDA CGU and SMO CGU.

In 2023, we are pursuing efforts initiated in 2021 to further develop the Company's business outside its core areas. Leveraging on its existing assets and its long-time leading capabilities, especially in high-performance computing, we are developing new businesses around near-to-core step out diversification opportunities and establishing new businesses to address the growing requirement for a low carbon world. Digital, Energy Transition, Infrastructure Monitoring and Defense markets rooted in the core capabilities, are integral parts of the three CGUs.

The following table provides the breakdown of goodwill per CGUs :

	December 31	
In millions of US$	**2023**	**2022**
EDA CGU	182.2	182.2
Geoscience CGU	722.8	723.1
DDE	**905.0**	**905.3**
SMO CGU	**190.5**	**184.1**
TOTAL	**1,095.5**	**1,089.4**

Key assumptions used in the determination of the recoverable amount

In determining the recoverable amount of assets through value in use, the Group management makes estimates, judgments, and assumptions on uncertain matters.

Our financial projections are based on internal estimates in matters of expected operating conditions, market dynamics, commercial penetration of new technologies and change in competitive landscape. Additionally, we support our projections with external sources of information, such as the yearly budgets of oil and gas companies, various analyses and reports on E&P spending, forecasted activities for the group and outlook for the sector provided by sell side analysts of brokerage firms and investment banks.

The main factors influencing our activities are the level of E&P spending and its evolution, which itself depends on various other factors such as oil price and its volatility, but also the importance of fossil fuels within the energy mix and the transition trajectory to a low carbon world.

The value in use is determined as follows:

- budgeted cash-flow and forecasted perspectives on the business plan duration for each CGU, with these periods forming the explicit period. Explicit period covers 3 years for the Geoscience CGU and was extended to 5 years for the EDA and SMO CGUs since 2022. These two additional years cover the operational transition period of these CGUs towards nodes acquisition for EDA and towards new businesses for SMO. Cash flows have been approved by Group management;
- use of normative cash flows beyond explicit period, the discounted normative cash flows weighing more than 75% of the Geoscience and EDA CGUs value in use and more than 73% for SMO CGU;
- long-term growth rate of 2.0% for all the CGUs; with the expected fading in the O&G activities in the long term being compensated by the strong dynamics of our new businesses, especially in the energy transition;
- discount rate at 11.0% for all the CGUs from 10.0% last year, that we consider reflecting the weighted average cost of capital (WACC). The discount rate factors in the risk associated with the development of our new businesses, the transition to the nodes aquisition activities as well as the risk associated with the energy transition, and correspond to a pre-tax rate of 13.3% for Geoscience CGU, 14.4% for EDA CGU and 13.0% for SMO CGU.

The WACC is calculated using the standard capital asset pricing model methodology (CAPM). The net asset value (NAV) of each CGU is computed using pre-tax WACC, with tax expenses being included in our cash flow projections. The pre-tax WACC is then calculated iteratively, i.e. applying the discount rate leading to the same NAV with tax expenses excluded from cash flow projections.

In 2023

Following a global upstream spending up 15% in 2023, and in line with sector analyst we believe market fundamentals that underpin a favorable upcycle for energy remain very compelling both in oil and gas and in low carbon energy resources. At the macro-environment level, we continue to see the effects of several years of reduced investments, which are translating into high commodity prices. We expect the strengthening of the Exploration, Development and Production market will significantly improve the performance of our core businesses as our clients prioritize short time to market projects, and the search for new lower-cost, lower-risk and lower-carbon reserves, especially offshore. The industry is in a strong position to help drive energy transition along with the de-carbonization of oil and gas, and our differentiated technologies should play a key role. We believe these positive macro trend to benefit each of our businesses.

Outside the Company's business core areas, the rapidly growing digitalization, observation & monitoring, and energy transition markets, in which we participate through our new integrated solutions, are expected to contribute significantly to the growth of the activities of the group in the future.

Our financial projections are based on these growth trajectories for core highly differentiated businesses and for our near-to-core opportunities.

DDE

Geoscience

Our Geoscience core business should continue its growth sustained by increased demand for high-end technologies and improved images of the subsurface for reservoir optimization and development. Our continued geoscience innovation combined with the growing demand for Ocean Bottom Node (OBN) and high-density surveys strengthen our unique position to address the most complex and business critical challenges of our clients.

With the continued rapid and global advance of digital technology and solutions, including areas such as data analytics, digital transformation, big data, machine learning, artificial intelligence and cloud computing, companies are increasingly considering their data as one of their core assets. In this context, CGG provides expert digital solutions to its clients. These solutions include high performance computing (HPC) and cloud services (incl. Platform, Data and Software as a Service offerings). In 2023 these new businesses represented 9% of Geoscience revenues from 7% in 2022.

At December 31, 2023, the capital employed of the Geoscience CGU amount to US$882 million including US$723 million of goodwill.

No impairment of goodwill is recognized for our Geoscience CGU at December 31, 2023.

EDA

Many of our customers are focusing their E&P budgets on increasing production from existing fields where they can leverage installed infrastructure. EDA CGU provides solutions that support this trend and see solid demand for our large multi-client projects in mostly mature and proven basins. In addition, oil & gas companies are increasingly asking for reprocessing of existing data sets to benefit from the development of new imaging algorithms. This allows our customers to maximize the return from exploration investments based on lower seismic costs, compared with acquisition of new data.

Ocean Bottom Node (OBN) is a must have for our clients. The increasing need for Quality and Precision matter for all our clients as OBN is critical to resolve subsurface details. Node data will gradually become a more important component of our investment portfolio, especially in these high potential mature basins where we are focused on filling streamer data gaps. Combined with the latest generation of our algorithms, thanks to node technology we are able to deliver better sub-surface images than with streamer data and added value remain improved even with higher acquisition costs. The explicit period was maintained to 5 years in order to reflect the operational transition period towards nodes acquisition.

Leveraging on our high-end data library, we see our unique expertise is fully transferrable into the low-carbon markets of CCUS and Minerals & Mining as we see as additional growth levers positively complementing our offering in domains where our clients are expanding rapidly. In 2023, these new businesses represented 3% of Earth Data revenues from 6% in 2022, a decrease related to the phasing of Mining and CCUS projects.

At December 31, 2023, the capital employed of the EDA CGU amount to US$521 million including US$182 million of goodwill.

No impairment of goodwill is recognized for our EDA CGU at December 31, 2023.

SMO

Our SMO CGU benefits from a strong reputation as a provider of high-end solutions with a large installed base. We will continue to bring to market our best-in-class equipment while expanding beyond oil and gas markets in Infrastructure Monitoring.

More specifically, for land equipment, we see opportunities for the latest generations of products, both for cable and wireless. On the marine equipment front, our nodal seismic acquisition solution is expected to increase, while the demand for streamers should progressively recover as current fleets are aging and their excess equipment inventories are shrinking.

Our sensing systems technologies, together with our ability to analyze and integrate datasets, and apply the latest AI technologies are finding exciting new applications in understanding the dynamic behaviors of complex structures such as bridges, railway works, tunnels and wind turbines. We anticipate the acceleration of the development of these new businesses by taking advantage of our unique portfolio of industry leading sensor technology. Since 2022, the explicit period was extended for 2 additional years in order to reflect these changes. In 2023, these new businesses represented 10% of Sensing & Monitoring (SMO) revenues from 12% in 2022, with strong increase and volatility in the traditional activities.

At December 31, 2023, the capital employed of our SMO CGU amount to US$559 million including US$191 million of goodwill.

No impairment of goodwill is recognized for our SMO CGU at December 31, 2023.

In 2022

At December 31, 2022, the capital employed at the Geoscience cash-generating units amounted to US$843 million, including US$723 million in goodwill.

At December 31, 2022, the capital employed at the EDA cash-generating unit amounted to US$538 million, including US$182 million in goodwill.

At December 31, 2022, the capital employed at the SMO cash-generating unit amounted to US$606 million, including US$184 million in goodwill.

No impairment of goodwill was recognized at December 31, 2022.

Sensitivity to changes in assumptions

A change in certain assumptions, in particular the discount rate and the normative cash flows, could significantly impact the measurement of the value in use of our CGU and, hence, the impairment test outcomes. The cyclical business profile of our operations can have an impact on the value in use, albeit to a lesser extent than the two previous factors. The structuring assumptions are the recovery in E&P spending as well as the growth of our new businesses which are expected to represent half of the Group's activity in the long term. The cash flows generated in the explicit period as well as in the normative year could vary based on the timing and breadth of these assumptions. The impacts on value in use coming from reasonably possible changes in the explicit period as well as in the normative year are disclosed in the template below.

Changes in these assumptions have the following impact on value in use:

In millions of US$	Goodwill	Difference between the CGUs' value in use and the carrying value of assets including goodwill	Sensitivity of cash flow over explicit period		Sensitivity of cash flow over normative period		Sensitivity to long-term growth rates		Sensitivity to discount rate (after tax)	
			Decrease of 10%	Increase of 10%	Decrease of 10%	Increase of 10%	Decrease of 0.50 bps	Increase of 0.50 bps	Decrease of 0.50 bps	Increase of 0.50 bps
Geoscience CGU	722.8	247	(25)	25	(88)	88	(46)	52	67	(60)
EDA CGU	182.2	33	(13)	13	(43)	43	(22)	25	37	(33)
SMO CGU	190.5	78	(18)	18	(46)	46	(24)	27	41	(37)
TOTAL	**1,095.5**									

More specifically regarding EDA CGU, additional changes in the assumptions could significantly impact the measurement of the value in use, such as level of investment in the normative year as well as the normative cash-on-cash ratio. The impacts on value in use coming from reasonably possible changes are disclosed in the template below.

In millions of US$	Sensitivity on normative investments (a)		Sensitivity on normative cash-on-cash ratio (b)(c)	
	Decrease of 10% (or US$25 million)	Increase of 10% (or US$25 million)	Decrease of 10 bps (or US$45 million of revenues)	Increase of 10 bps (or US$45 million of revenues)
EDA CGU	(115)	115	(139)	139

(a) At fixed cash-on-cash ratio.
(b) Cash-on-cash ratio is revenue over investments ratio.
(c) At fixed investments.

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NOTE 12 OTHER CURRENT AND NON-CURRENT LIABILITIES

	December 31	
In millions of US$	**2023**	**2022**
Value added tax and other taxes payable	21.2	36.8
Deferred revenues *(note 18)*	197.6	142.9
Fair value of financial instruments *(note 14)*	0.9	4.5
Off-Market Component [(a)]	13.9	13.8
Other current liabilities	16.7	24.1
OTHER CURRENT LIABILITIES	**250.3**	**222.1**

(a) Operating debt in respect of Capacity Agreement

	December 31	
In millions of US$	**2023**	**2022**
Research and development subsidies	-	0.1
Profit-sharing scheme	1.7	1.6
Off-Market Component [(a)]	2.4	16.6
Other non-current liabilities	0.2	0.1
OTHER NON-CURRENT LIABILITIES	**4.3**	**18.4**

(a) Operating debt in respect of Capacity Agreement.

NOTE 13 FINANCIAL DEBT

Gross financial debt as of December 31, 2023 was US$1,300.8 million compared to US$1,249.2 million as of December 31, 2022.

The breakdown of our gross debt is as follows:

	December 31					
	2023			2022		
In millions of US$	**Current**	**Non-current**	**Total**	**Current**	**Non-current**	**Total**
2027 Notes	-	1,146.4	1,146.4	-	1,124.0	1,124.0
Bank loans and other loans	1.2	31.0	32.2	2.8	10.0	12.8
Lease liabilities	37.4	65.4	102.8	37.9	54.8	92.7
Sub-total	**38.6**	**1,242.8**	**1,281.4**	**40.7**	**1,188.8**	**1,229.5**
Accrued interests	19.4	-	19.4	19.7	-	19.7
Financial debt	**58.0**	**1,242.8**	**1,300.8**	**60.4**	**1,188.8**	**1,249.2**
Bank overdrafts	-	-	-	-	-	-
TOTAL	**58.0**	**1,242.8**	**1,300.8**	**60.4**	**1,188.8**	**1,249.2**

Changes in liabilities arising from financing activities

From September 2022, CGG has concluded an asset financing agreement to develop HPC and Cloud Solutions capacity. As part of this agreement, the financial institution agrees, on CGG's instructions, to settle supplier invoices on behalf of CGG.

Each invoice was treated in this agreement as a unique loan with its own repayment schedule before a consolidation took place in October 2023.

At this date, CGG opened a new HPC (High-Performance Computing) center in the southeast of England, financed from 2022 with two categories of liabilities:

- New commitments covered by the IFRS16 standard: the signing in June 2023 of a 15-year lease, and successive additional rentals of computing equipment; mainly explaining the increase in lease liability of US$29.8 million between 2022 and 2023, and
- The implementation of an additional asset financing in 2023 of US$23.9 million *(note 28)*, bringing the total financing of the new site over the two consecutive years after renegotiation to US31.5 million. The outstanding asset financing amounts to US$29.7 million at December 31, 2023. Monthly payments of US$0.4 million will be paid until July 2026, then 3 monthly payments of US$9.4 million in August, September and October 2026.

The financing agreement is treated as a financial debt and does not have the character of an operating debt. Cash flows are presented in the financing flows in the consolidated cash flow statement.

In 2022, CGG finalized the sales and leaseback of its head office.

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In millions of US$	December 31 2023	2022
Balance at beginning of period	**1,249.2**	**1,308.4**
Decrease in long term debts [(a)]	(1.8)	(0.1)
Increase in long-term debts [(a)]	23.9	10.7
Lease repayments	(57.0)	(48.4)
Sale and leaseback [(b)]	-	(29.0)
Financial interests paid [(c)]	(90.7)	(92.4)
Total Cash flows	**(125.6)**	**(159.2)**
Cost of financial debt, net [(c)]	95.3	98.5
Call premium	-	-
Increase in lease liabilities [(d)]	53.4	43.9
Translation adjustments [(e)]	28.3	(46.5)
Change in consolidation scope [(f)]	0.2	4.1
Other	-	-
BALANCE AT END OF PERIOD	**1,300.8**	**1,249.2**

(a) Asset financing to expand our HPC and Cloud solutions capabilities in 2023 and in 2022.
(b) Purchase option exercised for US$(29.0) million in relation with CGG headquarters sale and leaseback (note 2) in 2022 .
(c) Interest charges on both euro and dollar Senior Notes of the High Yield Bond and commissions related to the non-utilization of the Revolving Credit Facility, in 2023 and 2022.
(d) Includes new lease contracts in UK and US entities for US$29.8 million and US$21.5 million respectively in 2023, and including the IFRS 16 debt related to the sale and leaseback of CGG's headquarter for US$13.7 million in 2022.
(e) Mainly EUR/USD exchange rate fluctuation on 2027 Notes - tranche EUR.
(f) Related to the acquisition of Morphosense in 2023, and to the acquisition of Geocomp and Ion in 2022.

Financial debt by financing sources

	Issuing date	Maturity	Nominal amount 12.31.2022 *(in millions of currency)*	Net balance 12.31.2022 *(in US$m)*	Interest rates
2027 Notes tranche USD	2021	2027	US$500.0	500.0	8.75%
2027 Notes tranche EUR	2021	2027	€585.0	646.4	7.75%
Sub-total 2027 Notes				**1,146.4**	
Other loans				32.2	
Sub-total bank loans and other loans				**32.2**	
Lease liabilities				102.8	
Sub-total lease liabilities				**102.8**	
TOTAL FINANCIAL DEBT, EXCLUDING ACCRUED INTERESTS AND BANK OVERDRAFTS				**1,281.4**	

Financial debt by currency

In millions of US$	December 31 2023	2022
USD	591.2	564.8
EUR	669.6	646.4
GBP	13.8	7.7
AUD	0.6	1.9
CAD	3.3	3.9
NOK	0.1	0.9
SGD	1.5	2.5
RUB	-	-
Other	1.3	1.4
TOTAL FINANCIAL DEBT, EXCLUDING ACCRUED INTERESTS AND BANK OVERDRAFTS	**1,281.4**	**1,229.5**

Financial debt by interest rate

In millions of US$	December 31 2023	2022
Variable rates (average effective rate December 31, 2023: nil, 2022: nil)	-	-
Fixed rates (average effective rate at December 31, 2023: 8.05%, 2022: 7.94%)	1,281.4	1,229.5
TOTAL FINANCIAL DEBT, EXCLUDING ACCRUED INTERESTS AND BANK OVERDRAFTS	**1,281.4**	**1,229.5**

High Yield Bonds (US$500 million of 8.75% Senior Notes and €585 million of 7.75% Senior Notes, maturity 2027)

On April 1, 2021, CGG issued US$500 million in aggregate principal amount of 8.75% Senior Secured Notes due 2027 and €585 million in aggregate principal amount of 7.75% Senior Secured Notes due 2027 (together, the "2027 Notes").

These notes are listed on the Euro MTF of the Luxembourg Stock Exchange and are guaranteed on a senior secured basis by certain subsidiaries of CGG SA. The fair value measurement of the 2027 Notes is categorized within Level 1 of the fair value hierarchy.

The 2027 Notes do not include any financial "maintenance covenant", thus CGG is not committed to continuously satisfy one or more financial obligations. Nevertheless, they include specific limitations on incurrence of additional indebtedness, pledges, asset sales, issuances and sales of equity instruments, investments in minority owned companies and dividend payments.

The above operations are permitted within certain limits, this is particularly the case for the drawing of the RCF credit facility detailed below, which is authorized under the clause of the authorized debts "Permitted Debt".

The sale of assets is permitted, among other things, if the sale price is at fair market value and if the Group reinvests the proceed of the sale in a replacement assets within 365 days.

- On September 20, 2023, the board of directors approved the transfer of research tax credit for the years 2020, 2021, and 2022 to La Banque Postale for a net consideration of €21.0 million. This sale was authorized under the condition of reinvestment in replacement assets or CAPEX within 365 days.
- In 2023, we also sold our shares in two companies, whose respective market values were below US$10 million US dollars. In accordance with our financing agreements, they are exceptions to the limitations imposed on asset sales and therefore do not require reinvestment tracking within the 365-day period:
- On November 21, 2023, CGG announced that it had reached a final agreement with Industrialization and Energy Services Company (TAQA) for the sale of its entire 49% stake in Arabian Geophysical and Surveying Company (ARGAS). On December 13, 2023, CGG received consideration of US$2.7 million US dollars.
- On December 14, 2023, Sercel sold its 19% stake in the US company Interactive Network Technologies Inc. (INT) for a consideration amount of US$3.5 million US dollars.

The 2027 Notes were issued at a price of 100% of their principal amount.

The net proceeds from the issuance of the 2027 Notes were used, together with cash on hand, to:

(i) settle the Tender Offer;

(ii) satisfy and discharge on April 1, 2021 and subsequently redeem on May 1, 2021 in full the Existing First Lien Notes that were not repurchased in the Tender Offer;

(iii) satisfy and discharge on April 1, 2021 and subsequently redeem on April 14, 2021 in full the Existing Second Lien Notes; and

(iv) pay all fees and expenses in connection with the foregoing.

The 2027 Notes and the revolving credit facility share the same security package encompassing notably the US Earth Data library, the shares of the main Sercel entities (Sercel SAS and Sercel Inc.), the shares of significant DDE operating entities, and certain intercompany loans.

US$ 100 million Revolving Credit Facility

(In millions of US$)	Date	Maturity	Authorized amount	Used amount	Mobilized amount	Available amount
Revolving Credit Facility	2021	2025	100.0	–	10	90.0

On April 1, 2021 CGG entered into a US$100 million Super Senior Revolving Credit Facility Agreement with a 4.5 year maturity and secured by the same security package as the 2027 Notes. Interest rate is calculated according to SOFR rate increased by a 5% margin, downward revisable depending Group rating and greenhouse gas emission reduction targets.

The margin was revised downward due to Fitch's credit rating upgrade for the Group in April 2023.

In 2023, US$10 million US dollars from the revolving credit were mobilized by one of our lending banks to enable CGG to issue guarantees and indemnities in favor of clients.

The revolving credit facility include some limitations, the same as those aforementioned on the 2027 Notes, on additional indebtedness subscriptions, pledges arrangements, asset sale, issuance and sale of equity instruments, investment in minority owned companies and dividends payments.

The 2027 Notes and RCF share the same security package encompassing notably the US Earth Data library, the shares of the main Sercel entities (Sercel SAS and Sercel Inc.), the shares of significant DDE operating entities, and certain intercompany loans.

Pursuant to the RCF agreement, solely if the drawing exceeds 40% of the facility, the Group is required to quarterly comply with a maximum ratio of total "Consolidated Senior Secured Net Leverage" to "Consolidated EBITDA" of 3.50:1 for each rolling 12-months period. These terms are defined in the aforementioned RCF agreement as follows:

- "Consolidated Senior Secured Net Leverage" is defined as Senior Secured Indebtedness less cash and cash equivalents;
- "Consolidated EBITDA" is computed on Segment figures and is defined as net income before interest, tax, depreciation, amortization and non-recurring items.

At December 31, 2023, the credit facility is not drawn, thus there is no commitment regarding the ratio depicted above. For information purpose, it is of 2.50:1 at December 31, 2023.

Other loans

In October 2021, BPI granted to the SMO segment an innovation loan of €2 million at a preferential rate with a 7 year maturity and quarterly repayment in tranches of €0.1 million from March 2024 onward.

NOTE 14 CURRENT AND NON-CURRENT FINANCIAL LIABILITIES

As we operate internationally, we are exposed to general risks linked to operating abroad. Our major market risk exposures are currency fluctuations. We do not enter into or trade financial instruments including derivative financial instruments for speculative purposes.

Foreign currency risk management

As a company that derives a substantial amount of its revenue from sales internationally, we are subject to risks relating to fluctuations in currency exchange rates. The Group's revenue and expenses are mostly denominated in US dollar and euro, as well as to a lesser extent in currencies such as the Brazilian real, the Chinese yuan, the Norwegian krone, the pound sterling, the Canadian dollar, the Australian dollar and the Malaysian ringgit.

Foreign currency sensitivity analysis

Fluctuations in the exchange rate of other currencies, particularly the euro, against the US dollar, have had in the past and will have in the future a significant effect upon our results of operations. We manage our balance sheet exposures (including debt exposure) by maintaining, as far as possible, a balance between our monetary assets and liabilities in the same currency, and readjusting for any variance through spot and forward currency sales or equity transactions. Although we attempt to minimize this risk, we cannot guarantee that exchange rate fluctuations will not have a materially adverse impact on our future operating results.

As of December 31, 2023, we estimate our net annual recurring expenses in euros at the Group level to be approximately €250 million and as a result, an unfavorable variation of US$0.10 in the average yearly exchange rate between the US dollar and the euro would reduce our net income (loss) and our shareholders' equity by approximately US$25 million.

The following table shows our exchange rate exposure at December 31, 2023

	December 31, 2023					
	Assets	Liabilities	Currency commitments	Net position before hedging	Forward contracts applied	Net position after hedging
Converted in millions of US$	(a)	(b)	(c)	(d) = (a) – (b) ± (c)	(e)	(f) = (d) + (e)
US$ [(a)]	1,129.5	(1,110.6)	-	18.9	(28.5)	(9.6)
EUR [(b)]	31.0	33.7	-	(2.7)	-	(2.7)

(a) US$-denominated assets and liabilities in the entities whose functional currency is the euro.
(b) Euro-denominated assets and liabilities in the entities whose functional currency is the US dollar.

In addition to our euro exposure depicted above, our net foreign exchange exposure at December 31, 2023, is also impacted by the Brazilian real (with a net passive position of US$23 million equivalent), the British pound (with a net asset position of US$4 million equivalent), the Norwegian Krone (with a net passive position of US$12 million equivalent), and the Canadian Dollar (with a net passive position of US$6 million equivalent).

"Gross financial debt" includes bank overdrafts, the short-term portion of financial liabilities and long-term financial liabilities. "Net financial debt" is defined as gross financial debt less cash and cash equivalents. Net financial debt is presented as additional information because we understand that certain investors believe that netting cash against debt provides a clearer picture of the financial liability exposure. However, other companies may present their net debt differently to us. Net financial debt is not a measure of financial performance under IFRS and should not be considered as an alternative to any other measures of performance derived in accordance with IFRS.

Our financial debt is partly denominated in euros and converted in US dollars at the closing exchange rate.

As at December 31, 2023, the euro-denominated component of our US$974 million in net financial debt came to €465 million, based on the closing exchange rate of US$1.1050 per euro. A variation of US$0.10 in the closing exchange rate between the US dollar and the euro would impact our net debt by approximately US$46 million.

Forward exchange contracts

Forward exchange transactions are aimed at hedging future cash flows against fluctuations in exchange rates involving sales contracts awarded. These forward exchange contracts usually have a maturity of less than one year.

We do not enter into foreign currency forward contracts for trading purposes.

As of December 31, 2023, the Group held forward sales contracts for the equivalent in US$52.6 million US dollars (of which US$45.1 million were attached to issued invoices), including US$36.0 million against euros and US$16.6 million in euro against Chinese yuan.

Effects of forward exchange contracts on the financial statements:

In millions of US$	December 31 2023	2022
Asset (Liability) Carrying value of forward exchange contracts *(notes 4 and 12)*	(0.2)	2.1
Gains (losses) recognized in profit and loss *(note 21)*	(1.5)	(7.1)
Gains (losses) recognized directly in equity	(0.5)	0.3

Interest rate risk management

Following the last refinancing exercise carried out in 2021, the Group has achieved its objective of having only fixed-rate debt, in order to avoid being subject to interest rate risk. Changes in the monetary policy of the US federal Banks and European Central Bank, developments in the financial markets and changes in the perception of our credit quality may increase our cost of refinancing and therefore adversely affect our ability to refinance our debt, which may affect our business, liquidity, results of operations and financial conditions.

Interest rate sensitivity analysis

The following table shows our variable interest rate exposure by maturity at December 31, 2023:

	Financial assets*		Financial liabilities*		Net position before hedging		Off-balance sheet position		Net position after hedging	
	(a)		(b)		(c) = (a) - (b)		(d)		(e) = (c) + (d)	
12.31.2023 *In millions of US$*	Fixed rate	Variable rate	Fixed rate	Variable rate	Fixed rate	Variable rate	Fixed rate	Variable rate	Fixed rate	Variable rate
Overnight to 1 year	107.1	165.7	41.7	-	65.4	165.7	-	-	65.4	165.7
1 to 2 years	-	-	69.8	-	(69.8)	-	-	-	(69.8)	-
3 to 5 years	-	-	1,157.7	-	(1,157.7)	-	-	-	(1,157.7)	-
More than 5 years	-	-	12.2	-	(12.2)	-	-	-	(12.2)	-
TOTAL	**107.1**	**165.7**	**1,281.4**	**-**	**(1,174.3)**	**165.7**	**-**	**-**	**(1,174.3)**	**165.7**

* *Excluding bank overdrafts and accrued interest.*

Since the last refinancing exercise, CGG Group's sources of financing have consisted of secured loans subject only to fixed interest rates. Only financial assets are subject to variable interest rates. As a result, the Group's financial expenses are exposed to a very limited interest rate risk.

Commercial and counterparty risk

Our trade receivables and investments do not represent a significant concentration of credit risk due to the wide variety of markets in which we sell our services and products. Nevertheless, some of our clients are national oil companies, which can lengthen payment deadlines and expose us to political risks. Finally, in relation with our international operations, we work with a wide network of banks and are therefore subject to counterparty risks.

Specific procedures have been implemented to manage client payments and reduce risk. The Group's two largest clients contributed respectively 16.8% and 5.8% to the consolidated revenues in 2023. In 2022, they contributed 8.8% and 7.6% respectively.

The loss of any of our significant customers or deterioration in our relations with any of them could affect our business, results of operations and financial condition.

Liquidity risk management

We rely primarily on our ability to generate cash from operations and our access to external financing to fund our working capital needs.

Our cash generation depends on, among other factors, market conditions, the credit quality of customers and other contractual counterparties, the countries of cash collection and any transfer restrictions that may be in place, as well as the strength of our bank partnerships.

Our ability to repay or refinance our indebtedness and fund our working capital needs and planned capital expenditures depends, among other things, on our future operating results, which will be partly the result of economic, financial, competitive and other factors beyond our control.

In this context, the following measures have been put in place to manage our liquidity risk:

- we have implemented extended cash pooling arrangements in order to circulate cash inside the group and supply funds where needed;
- we seek to anticipate liquidity position (with daily reporting on cash in, weekly reporting on free cash flow, regular reporting to Finance Committee, and to the Audit and Risk Management Committee and, on a long-term basis, assessments of our budget and business plan;

- we manage short term cash needs by targeting reserves of available liquidity, and, as appropriate, reducing capital expenditures and costs, selling assets, and, if required, adjusting the group profile and footprint;
- we manage long term cash needs by planning refinancing long before maturity, maintaining regular discussions with banks and regularly communicating with investors regarding our strategy;
- our Trade Compliance Officer and treasury functions are regularly informed about countries where cash could be trapped or difficult to move within the group. We also check our counterparty risk for sales and our bank partners' quality (rating);
- we aim to maintain access to guarantee lines by seeking good relations with bank partners.

Energy risk management

The Group may enter into energy derivatives contracts as part of energy risk management. At December 31, 2023, the Group has booked the following hedging impacts:

In millions of US$	December 31 2023	December 31 2022
Amount in the financial statement of the electricity contracts *(note 12)*	(0.7)	(3.8)
Profits (losses) recognized in profit or loss	-	-
Gains (losses) recognized directly in equity	2.5	(2.9)

Financial instruments by categories in the statement of financial position

The impact and breakdown of the Group's financial instruments in the statement of financial position at December 31, 2023 are as follows:

	As at December 31, 2023						
In millions of US$	Fair value hierarchy [(a)]	Carrying amount	Fair value	Fair value in income statement	Loans, Receivables	Debt at amortized cost	Derivatives
Non-consolidated investments	Level 3	-	-	-	-	-	-
Non-current financial assets	Level 3	22.7	22.7	-	22.7	-	-
Trade accounts and notes receivables	Level 3	310.9	310.9	-	310.9	-	-
TOTAL ASSETS		**333.6**	**333.6**	**-**	**333.6**	**-**	**-**
2027 Notes	Level 1	1,146.4	1,049.7	-	-	1,146.4	-
Bank loans and other loans	Level 3	32.2	32.2	-	-	32.2	-
Trade and other payables	Level 3	86.4	86.4	-	86.4	-	-
Current and non-current financial liabilities	Level 2	21.8	21.8	-	-	21.8	-
Derivatives	Level 2	0.9	0.9	-	-	-	0.9
TOTAL LIABILITIES		**1,287.7**	**1,191.0**	**-**	**86.4**	**1,200.4**	**0.9**

(a) Level 1 – Listed (unadjusted) market prices in active markets for identical assets or liabilities. Level 2 – Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable. Level 3 – Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

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In millions of US$	As at December 31, 2022						
	Fair value hierarchy [(a)]	Carrying amount	Fair value	Fair value in income statement	Loans, Receivables	Debt at amortiz ed cost	Derivative s
Non-consolidated investments	Level 3	1.0	1.0	1.0	-	-	-
Non-current financial assets	Level 3	17.4	17.4	-	17.4	-	-
Trade accounts and notes receivables	Level 3	308.3	308.3	-	308.3	-	-
TOTAL ASSETS		**326.7**	**326.7**	**1.0**	**325.7**	**-**	**-**
2027 Notes	Level 1	1,124.0	908.6	-	-	1,124.0	-
Bank loans and other loans	Level 3	12.8	12.8	-	-	12.8	-
Trade and other payables	Level 3	92.0	92.0	-	92.0	-	-
Current and non-current financial liabilities	Level 2	41.8	41.8	-	-	41.8	-
Derivatives	Level 2	1.8	1.8	-	-	-	1.8
TOTAL LIABILITIES		**1,272.4**	**1,057.0**	**-**	**92.0**	**1,178.6**	**1.8**

(a) Level 1 – Listed (unadjusted) market prices in active markets for identical assets or liabilities. Level 2 – Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable. Level 3 – Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

As in 2022, there was no change in the fair value hierarchy in 2023.

Due to their short maturities, the fair value of cash, cash equivalents, bank overdrafts, trade receivables and trade payables is deemed equivalent to carrying value.

At December 31, 2023:

- the **first lien senior secured notes due 2027** denominated in US dollars were traded at a discounted price of 91.13% of their nominal value;
- the **first lien senior secured notes due 2027** denominated in euros were traded at a discounted price of 91.91% of their nominal value.

Other current and non-current financial liabilities

In millions of US$	December 31 2023	2022
Other current financial liabilities: *Idle Vessel Compensation*	21.3	20.0
Other non-current financial liabilities: *Idle Vessel Compensation*	0.5	21.8
TOTAL	**21.8**	**41.8**

Idle Vessel Compensation

The Idle Vessel Compensation is a financial obligation in relation to the Capacity Agreement, the contract for marine seismic data acquisition services between CGG and Shearwater effective until January 2025. The agreement provides compensation in the event of inactivity of more than one of the premium 3D vessels in the Shearwater fleet, up to three vessels. Compensation for inactive vessels is the net present value of the related estimated cash outflows, based on assumptions of use of the Shearwater fleet over the commitment period. The Idle Vessel Compensation is a debt at amortized cost.

On June 30, 2023, effective on July 1st, 2023, CGG and Shearwater signed an amendment to the Capacity Agreement, which sets a Fixed Activity Rate, and cancel the variable market rate mechanism. The amendment had no effect on the related balance sheet liability. The Idle Vessel Compensation is also fixed to its maximum full year amount of US$(21.9) million until the end of the Capacity Agreement on January 8, 2025.

At December 31, 2023, the residual financial liability for Idle Vessel Compensation amounts to US$(21.8) million with a current portion of US$(21.3) million and a non-current at US$(0.5) million.

NOTE 15 SHARE CAPITAL AND STOCK OPTION PLANS

At December 31, 2023, CGG SA's share capital consisted of 713,676,258 ordinary shares with a nominal value of €0.01 each. At December 31, 2022, CGG SA's share capital consisted of 712,357,321 ordinary shares with a nominal value of €0.01 each.

Rights and privileges attaching to ordinary shares

Ordinary shares give right to dividend. Ordinary registered shares held for more than two years qualify for double voting rights.

Dividends may be distributed from the CGG SA's statutory retained earnings, subject to the requirements of French law and the Company's articles of incorporation.

Retained earnings available for distribution amounted to €750.5 million (US$829.2 million) at December 31, 2022. We did not pay any dividend during the years ended December 31, 2023 and 2022.

Share capital, warrants and allocation of performance shares in 2023

Common stock operations during the 2023 fiscal year included the exercise of warrants for 23,794 shares and the definitive allocation of performance shares for 1 295,143 shares.

Share capital, warrants and allocation of performance shares in 2022

Common stock operations during the 2022 fiscal year included the exercise of warrants for 122,278 shares and the definitive allocation of performance shares for 571,118 shares.

Stock options

Pursuant to various resolutions adopted by the Board of Directors, the Group has granted options to purchase ordinary shares to certain employees, executive officers and directors.

The details of the beneficiaries and performance conditions for the plans prior to 2018 are not disclosed below, as the related expense recorded in the consolidation statement is not material. Details regarding adjustments to the number of options are not presented for these aforementioned plans.

On June 28, 2018, the Board of Directors allocated:

- 732,558 options to the Chief Executive Officer. These have an exercise price of €2.15 and vest in four batches, in June 2019 (for 25% of the options allocated), June 2020 (for 25% of the options allocated), June 2021 (for 25% of the options allocated) and June 2022 (for 25% of the options allocated). Vesting of these options is subject to performance conditions related to CGG share price. The options have a term of eight years;
- 1,141,088 options to the Executive Leadership members. These have an exercise price of €2.15 and vest in four batches, in June 2019 (for 25% of the options allocated), June 2020 (for 25% of the options allocated), June 2021 (for 25% of the options allocated) and June 2022 (for 25% of the options allocated). Vesting of these options is subject to performance conditions related to CGG share price. The options have a term of eight years;
- 4,670,743 options to certain employees. These have an exercise price of €2.15 and vest in four batches, in June 2019 (for 25% of the options allocated), June 2020 (for 25% of the options allocated), June 2021 (for 25% of the options allocated) and June 2022 (for 25% of the options allocated). The options have a term of eight years.

The exercise price of each option is the average market value of the share during the twenty-day period ending the day before the date the option is allocated.

On December 11, 2018, the Board of Directors allocated:

- 671,171 options to the members of the Executive Committee. These have an exercise price of €1.39 and vest in four batches, in June 2019 (for 25% of the options allocated), June 2020 (for 25% of the options allocated), June 2021 (for 25% of the options allocated) and June 2022 (for 25% of the options allocated). Vesting of these options is subject to performance conditions related to CGG's share price. The options have a term of seven years and seven months.

On June 27, 2019 and November 5, 2019, the Board of Directors allocated:

- 360,000 options to the Chief Executive Officer. These have an exercise price of €1.52 and vest in one batch in June 2022. Vesting of these options is subject to performance conditions related to CGG's share price. The options have a term of eight years;
- 851,330 options to the members of the Executive Committee. These have an exercise price of €1.52 and vest in two batches, in June 2021 (for 50% of the options allocated) and June 2022 (for 50% of the options allocated). Vesting of these options is subject to performance conditions related to CGG's share price. The options have a term of eight years;
- 1,062,190 options to certain Group employees. Their exercise price is €1.52 and vest in two batches, in June 2021 (for 50% of the options allocated) and June 2022 (for 50% of the options allocated). The options have a term of eight years.

The exercise price of each option is the average market value of the share during the twenty-day period ending the day before the date the option is allocated.

On June 25, 2020, the Board of Directors allocated:

- 360,000 options to the Chief Executive Officer. These have an exercise price of €1.10 and vest in one batch, in June 2023, subject to a performance condition relating to CGG's share price. The options have a term of eight years;

- 940,000 options to the Executive Leadership members. These have an exercise price of €1.10 and vest in one batch, in June 2023, subject to a performance condition relating to CGG's share price. The options have a term of eight years;
- 968,512 options to certain Group employees. These have an exercise price of €1.10 and vest in two batches, in June 2022 (for 50% of the options allocated) and June 2023 (for 50% of the options allocated). The options have a term of eight years.

On June 24, 2021, the Board of Directors allocated:

- 330,000 options to the Chief Executive Officer. These have an exercise price of €0.91 and vest in one batch, in June 2024, subject to a performance condition relating to CGG's share price. The options have a term of eight years;
- 710,000 options to the Executive Leadership members. These have an exercise price of €0.91 and vest in one batch, in June 2024, subject to a performance condition relating to CGG's share price. The options have a term of eight years;
- 870,920 options to certain Group employees. These have an exercise price of €0.91 and vest in two batches, in June 2023 (for 50% of the options allocated) and June 2024 (for 50% of the options allocated). The options have a term of eight years.

On June 22, 2022, the Board of Directors allocated:

- 455,000 stock options to the Chief Executive Officer. Their exercise price is €1.05. The options vest in one batch, in June 2025. Such vesting is subject to a performance condition relating to CGG's share price. The options have a term of eight years;
- 1,140,000 stock options to the Executive Leadership members. Their exercise price is €1.05. The options vest in one batch, in June 2025. Such vesting is subject to a performance condition relating to CGG's share price. The options have a term of eight years;
- 1,775,200 stock options to certain employees. Their exercise price is €1.05. The options vest in two batches, in June 2024 (for 50% of the options allocated) and June 2025 (for 50% of the options allocated). The options have a term of eight years.

On June 22, 2023, the Board of Directors allocated:

- 430,000 stock options to the Chief Executive Officer. Their exercise price is €0.68. The options vest in one batch, in June 2026. Such vesting is subject to a performance condition relating to CGG's share price. The options have a term of eight years;
- 1,270,000 stock options to the Executive Leadership members. Their exercise price is €0.68. The options vest in one batch, in June 2026. Such vesting is subject to a performance condition relating to CGG's share price. The options have a term of eight years;
- 1,692,560 stock options to certain employees. Their exercise price is €0.68. The options vest in two batches, in June 2025 (for 50% of the options allocated) and June 2026 (for 50% of the options allocated). The options have a term of eight years.

Information related to options outstanding at December 31, 2023 is summarized below:

Date of Board of Directors' Resolution	Options granted	Options granted after capital operations [(a)]	Options outstanding at Dec. 31, 2023 [(b) (c)]	Exercise price per share *(in €)* [(b) (c)]	Expiration date	Remaining duration
June 26, 2016	6,658,848	531,281	229,938	8.52	June 23, 2024	5,8 months
June 28, 2018	6,544,389	6,544,389	3,965,502	2.15	June 28, 2026	29,9 months
December 11, 2018	671,171	671,171	167,790	1.39	June 28, 2026	29,9 months
June 27, 2019 and November 5, 2019	2,273,520	2,273,520	1,331,190	1.52	June 27, 2027	41,9 months
January 6, 2020	80,000	80,000	40,000	2.72	June 27, 2027	41,9 months
June 25, 2020	2,268,512	2,268,512	1,522,792	1.10	June 25, 2028	53.9 months
June 24, 2021	1,910,920	1,910,920	1,862,070	0.91	June 24, 2029	65.8 months
June 28,2022	40,000	40,000	40,000	1.02	June 24, 2029	65,8 months
June 22, 2022	3,370,200	3,370,200	3,260,400	1.05	June 22, 2030	77.8 months
June 28, 2022	160,000	160,000	160,000	0.79	July 28, 2030	78,9 months
June 01, 2023	195,000	195,000	195,000	0.82	March 02, 2031	86,1 months
June 22, 2023	3,392,560	3,392,560	3,381,100	0,68	June 22, 2031	89.8 months
TOTAL	**27,565,120**	**21,437,553**	**16,115,782**			

(a) Options granted adjusted following 2016 and 2018 capital increases and 2016 reverse split.
(b) Following the reverse split in July 2016, the stock options were adjusted as follows.
(c) Following the capital increase in February 2018, the stock option plans were adjusted as follows.

A summary of the Company's stock option activity, and related information for the years ended December 31, 2023 follows:

Weighted average exercise price in €	2023		2022	
	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
Options outstanding at beginning of year	**13,341,156**	**1,91**	**11,904,700**	**2.81**
Granted	3,787,560	0,70	3,370,200	1.05
Adjustments following the reverse split	-	-	–	–
Adjustments following the capital increase	-	-	–	–
Exercised	-	-	–	–
Forfeited	(1,012,934)	5,79	(1,933,744)	5.98
Option outstanding at year-end	**16,115,782**	**1,38**	**13,341,156**	**1.91**
Exercisable at year-end	7,365,702	1,98	6,384,380	2.87

The average price of the CGG share was €0.70 in 2023 and €0.87 in 2022.

Performance units

Allocation plan dated June 25, 2020

On June 25, 2020, the Board of Directors allocated:

- 220,000 performance shares to the Chief Executive Officer. The performance shares vest in one batch, in June 2023. The vesting period for the batch of these performance shares is due to end on the latest of the following two dates: June 25, 2023 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2022, and provided that the Board of Directors deems the performance conditions to have been fulfilled;
- 530,000 performance shares to the Executive Leadership members. The performance shares vest in one batch, in June 2023. The vesting period for the batch of these performance shares is due to end on the latest of the following two dates: June 25, 2023 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2022, and provided that the Board of Directors deems the performance conditions to have been fulfilled;
- 1,203,148 performance shares to certain Group employees. The performance shares vest in two batches, in June 2022 (for 50% of the shares allocated) and June 2023 (for 50% of the shares allocated). The vesting period for the first batch of these performance shares is due to end on the latest of the following two dates: June 25, 2022 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2021, provided that the Board of Directors deems the performance conditions set forth in the plan regulation to have been fulfilled. The vesting period for the second batch of these performance shares is due to end on the latest of the following two dates: June 25, 2023 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2022, provided that the Board of Directors deems the performance conditions to have been fulfilled.

Allocation plan dated June 24, 2021

On June 24, 2021, the Board of Directors allocated:

- 280,000 performance shares to the Chief Executive Officer. The performance shares vest in one batch, in June 2024. The vesting period for the batch of these performance shares is due to end on the latest of the following two dates: June 24, 2024 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2023, and provided that the Board of Directors deems the performance conditions to have been fulfilled;
- 740,000 performance shares to the Executive Leadership members. The performance shares vest in one batch, in June 2024. The vesting period for the batch of these performance shares is due to end on the latest of the following two dates: June 24, 2024 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2023, and provided that the Board of Directors deems the performance conditions to have been fulfilled;
- 1,407,905 performance shares to certain Group employees. The performance shares vest in two batches, in June 2023 (for 50% of the shares allocated) and June 2024 (for 50% of the shares allocated). The vesting period for the first batch of these performance shares is due to end on the latest of the following two dates: June 24, 2023 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2022, provided that the Board of Directors deems the performance conditions set forth in the the plan regulation to have been fulfilled. The vesting period for the second batch of these performance shares is due to end on the latest of the following two dates: June 24, 2024 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2023, provided that the Board of Directors deems the performance conditions to have been fulfilled.

Allocation plan dated June 22, 2022

On June 22, 2022, the Board of Directors allocated:

- 455,000 performance shares to the Chief Executive Officer. The performance shares vest in one batch, in June 2025. The vesting period for the batch of these performance shares is due to end on the latest of the following two dates: June 22, 2025 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2024, and provided that the Board of Directors deems the performance conditions to have been fulfilled;

- 1,140,000 performance shares to the Executive Leadership members. The performance shares vest in one batch, in June 2025. The vesting period for the batch of these performance shares is due to end on the latest of the following two dates: June 22, 2025 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2024, and provided that the Board of Directors deems the performance conditions to have been fulfilled;
- 887,600 performance shares to certain Group employees. The performance shares vest in two batches:
  - in June 2024 (for 50% of the shares allocated). The vesting period for the first batch of these performance shares is due to end on the latest of the following two dates: June 22, 2024 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2023, provided that the Board of Directors deems the performance conditions set forth in the the plan regulation to have been fulfilled, and
  - in June 2025 (for 50% of the shares allocated). The vesting period for the second batch of these performance shares is due to end on the latest of the following two dates: June 22, 2025 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2024, provided that the Board of Directors deems the performance conditions to have been fulfilled;
- 848,700 restricted shares subject to presence condition to certain employees. The restricted shares subject to presence conditions vest in two batches, in June 2024 (for 50% of the shares allocated) and June 2025 (for 50% of the shares allocated).

Allocation plan dated June 22, 2023

On June 22, 2023, the Board of Directors allocated:

- 430,000 performance shares to the Chief Executive Officer. The performance shares vest in one batch, in June 2026. The vesting period for the batch of these performance shares is due to end on the latest of the following two dates: June 22, 2026 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2025, and provided that the Board of Directors deems the performance conditions to have been fulfilled;
- 1,270,000 performance shares to the Executive Leadership members. The performance shares vest in one batch, in June 2026. The vesting period for the batch of these performance shares is due to end on the latest of the following two dates: June 22, 2026 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2025, and provided that the Board of Directors deems the performance conditions to have been fulfilled;
- 890,400 performance shares to certain Group employees. The performance shares vest in two batches:
  - in June 2025 (for 50% of the shares allocated). The vesting period for the first batch of these performance shares is due to end on the latest of the following two dates: June 22, 2025 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2024, provided that the Board of Directors deems the performance conditions set forth in the the plan regulation to have been fulfilled, and
  - in June 2026 (for 50% of the shares allocated). The vesting period for the second batch of these performance shares is due to end on the latest of the following two dates: June 22, 2026 or the date of the Annual Shareholders' Meeting convened to approve the financial statements for fiscal year 2025, provided that the Board of Directors deems the performance conditions to have been fulfilled;
- 841,500 restricted shares subject to presence condition to certain employees. The restricted shares subject to presence conditions vest in two batches, in June 2025 (for 50% of the shares allocated) and June 2026 (for 50% of the shares allocated).

The following table lists the assumptions used to value the 2018, 2019, 2020, 2021,2022 and 2023 stock options plans and the 2020, 2021, 2022 and 2023 performance unit allocation plans in accordance with IFRS 2, and the resulting fair values. The other previous plans have a non-significant impact on IFRS 2 expense. The Group uses the Monté Carlo model to value the options granted. Dividend yield used is nil for all plans.

	Options granted	Volatility [a]	Risk-free rate	Exercise price per share *(in €)*	Estimated maturity *(in years)*	Fair value per option at the grant date *(in €)*	Total cost *(in € million)*
June 2018 stock options plan	6,544,389	56%	0%	2.15	2.5	0.63	4.1
December 2018 stock options plan	671,171	56%	0%	1.39	2.5	0.57	0.4
June 2019 stock options plan	2,273,520	57%	0%	1.52	2.5	0.50	1.1
June 2020 stock options plan	2,268,512	65%	(0.6)%	1.10	2.5	0.34	0.8
June 2021 stock options plan	1,910,920	63%	(0.6)%	0.91	2.5	0.25	0.5
June 2022 stock options plan	3,370,200	63%	1.3%	1.05	2.75	0.30	1.0
June 2023 stock options plan	3,392,560	63%	3.2%	0.65	2.75	0.24	0.7

(a) Corresponds to restated historical average volatility and implied volatility.

	Free shares granted subject to performance conditions	Performance Conditions fulfilled [(a)]	Fair value per share at the grant date *(in €)* [(b)]	Dividend yield
June 2020 performance units plan	1,953,148	100%	1.10	0
June 2021 performance units plan	2,427,905	100%	0.91	0
June 2022 performance units plan	2,482,600	100%	1.05	0
June 2023 performance units plan	2,590,040	100%	0,68	0
June 2022 restricted shares plan	848,700	100%	1.05	0
June 2023 restricted shares plan	841,500	100%	0,68	0

(a) Estimated.

Under IFRS 2, the fair value of the stock options granted since November 7, 2002 must be recognized as an expense over the life of the plan. The expenses break down as follows:

	Expense under IFRS 2		In respect of executive managers of the Group	
In millions of US$	**2023**	**2022**	**2023**	**2022**
2018 stock options plan	-	0.1	-	-
2019 stock options plan	-	0.1	-	0.1
2020 stock options plan	0.1	0.3	0.1	0.2
2021 stock options plan	0.2	0.2	0.1	0.1
2022 stock options plan	0.4	0.2	0.2	0.1
2023 stock options plan	0.1	-	0.1	-
2020 performance units plans – paid in shares	(0.5)	0.7	(0.2)	0.3
2021 performance units plans – paid in shares	0.7	0.8	0.3	0.4
2022 performance units and restricted shares plans – paid in shares	1.5	0.6	0.7	0.2
2023 performance units and restricted shares plans – paid in shares	0.5	-	0.2	-
TOTAL EXPENSE FOR EQUITY-SETTLED TRANSACTIONS	**3.0**	**3.0**	**1.5**	**1.4**

NOTE 16 PROVISIONS

	December 31, 2023							
In millions of US$	Balance at beginning of year	Additions	Deductions (used)	Deductions (unused)	Other [(a)]	Balance at end of period	Short term	Long term
Provisions for redundancy plan	1.7	0.2	(0.1)	(1.2)	-	0.6	0.6	-
Provision for other restructuring costs	0.4	-	(0.2)	-	-	0.2	0.2	-
Provisions for onerous contracts	0.2	-	-	-	-	0.2	-	0.2
Total CGG 2021 plan	**2.3**	**0.2**	**(0.3)**	**(1.2)**	**-**	**1.0**	**0.8**	**0.2**
Provisions for redundancy plan	2.0	0.3	(0.1)	-	0.1	2.3	2.3	-
Provisions for pensions [(b)]	14.7	2.3	(1.9)	(0.2)	1.8	16.7	-	16.7
Provisions for customer guarantees	3.1	2.1	(2.9)	-	0.1	2.4	-	2.4
Other provisions for restructuring costs	-	0.1	(0.1)	-	-	-	-	-
Provisions for cash-settled share-based payment arrangements [(c)]	0.8	0.1	-	-	-	0.9	-	0.9
Other provisions for onerous contracts	0.3	-	(0.2)	-	-	0.1	0.1	-
Other provisions (other taxes and miscellaneous risks)[(d)]	23.0	2.1	(1.5)	(9.6)	1.4	15.4	5.5	9.9
Total other provisions	**43.9**	**7.0**	**(6.7)**	**(9.8)**	**3.4**	**37.8**	**7.9**	**29.9**
TOTAL PROVISIONS	**46.2**	**7.2**	**(7.0)**	**(11.0)**	**3.4**	**38.8**	**8.7**	**30.1**

(a) Includes translation adjustments, reclassification and actuarial gains (losses). The defined benefit pension plan in the United Kingdom has been reclassified in other non-current assets from 2022.
(b) The change in provisions for pensions mainly relates to the revision of actuarial assumptions.
(c) Relating to social security costs.
(d) In 2023, the deduction of provisions (unused) concerns the reversal of a provision in CGG Services SAS related to withholding tax due to the statute of limitation for US$6.6 million, and the full reversal of a provision in CGG SA recorded as part of a former intellectual property dispute for US$1.8 million.

Provision for restructuring costs

In 2023, the Group used US$(0.2) million of provision for redundancy costs and US$(0.2) million for other restructuring costs.

In 2022, the Group used US$(2.0) million of provision for redundancy costs and US$(0.6) million for other restructuring costs.

Provisions for retirement benefit obligations

The Group's main obligations in respect of pensions and related employee benefits are in France and the UK. The UK scheme was closed to new entrants on December 1, 1999 and closed to future accruals in 2016.

Contributions amounting to US$(0.8) million were paid in France in 2023 and 2022, respectively.

The Group records provisions for retirement benefits based on the following actuarial assumptions:

- staff turnover and mortality factors;
- legal retirement age with consideration of any changes in the contribution period;
- actuarial rate and average rate of increase in future compensation;
- taxes on pension plans and supplemental pension plans.

As of December 31, 2023, the net liability for these plans amounted to US$(9.9) million:

(i) US$6.8 million of assets in relation with the UK defined benefits scheme following the improvement of yield on corporate bonds (AA) issued in GBP. There is a pension asset ceiling as of end of December 2023. The balance of the UK defined benefits scheme is presented in "other non-current assets" in the consolidated statement of financial position; and

(ii) US$(16.7) million of liabilities for the other obligations in respect of pension and related employee benefits.

On the basis of the actuarial assumptions referred to above, details of the retirement benefit obligations, provisions recognized in the balance sheet, and the retirement benefit expenses recognized in 2023 are provided below:

	December 31	
In millions of US$	**2023**	**2022**
AMOUNTS RECOGNIZED IN THE STATEMENT OF FINANCIAL POSITION		
Present value of the obligation [a]	76.2	76.0
Fair value of plan assets	(69.8)	(69.5)
Deficit (surplus) of funded plans	**6.4**	**6.5**
Asset ceiling	3.5	-
Net liability (asset) recognized in the statement of financial position	**9.9**	**6.5**
AMOUNTS RECOGNIZED IN THE INCOME STATEMENT		
Current service cost	1.5	1.2
Interest expense (income) for the financial year	0.1	0.1
Effects of curtailments/settlements	-	-
Past service cost	(0.2)	-
Net expense (income) for the period	**1.4**	**1.3**
MOVEMENTS IN THE NET LIABILITY RECOGNIZED IN THE STATEMENT OF FINANCIAL POSITION		
Net Liability at January 1st	**6.5**	**17.5**
Expense as above	1.4	1.3
Actuarial gains (losses) recognized in other comprehensive income [b]	2.5	(7.9)
Contributions paid	(3.2)	(3.2)
Benefits paid by the Company	(0.8)	(0.8)
Consolidation scope entries, reclassifications and translation adjustments	-	(0.4)
Asset ceiling	3.5	
Net Liability at December 31	**9.9**	**6.5**
CHANGE IN DEFINED BENEFIT OBLIGATION		
Defined benefit obligation at January 1st	**76.0**	**132.1**
Payroll tax adjustment	-	-
Current service cost	1.2	1.2
Contributions paid	-	-
Interest Cost	3.5	2.0
Past service cost	(0.2)	-
Benefits paid from plan	(2.7)	(3.4)
Actuarial gains (losses) recognized in the other comprehensive income	(5.5)	(44.2)
Effects of curtailments/settlements		-
Consolidation scope entries, reclassifications and translation adjustments	3.9	(11.7)
Obligation in respect of benefits accrued at December 31	**76.2**	**76.0**

In millions of US$	December 31 2023	2022
CHANGE IN PLAN ASSETS [c]		
Fair value of plan assets at January 1st	**69.5**	**114.6**
Interest income for the financial year	3.4	1.9
Contributions paid	3.2	3.2
Benefits paid from plan	(1.9)	(2.6)
Actuarial gains (losses) recognized in the other comprehensive income	(8.1)	(36.3)
Effects of curtailments/settlements	-	-
Consolidation scope entries, reclassifications and translation adjustments	3.7	(11.3)
Other	-	-
Obligation in respect of benefits accrued at December 31	**69.8**	**69.5**
KEY ASSUMPTIONS USED IN ESTIMATING THE GROUP'S RETIREMENT OBLIGATIONS ARE:		
Discount rate [d]	3.50%	3.75%
Average rate of increase in future compensation [e]	2.50%	2.00%

(a) In 2023, these commitments amount to US$76.5 million of which US$15.8 million for defined-benefit plans not covered by plan assets (US$14.7 million in 2022). The average duration of the defined benefit plans was 12.5 years at December 31, 2023 (14.1 years at December 31, 2022).

(b) Other comprehensive income.

Cumulative actuarial gains recognized in other comprehensive income amounted to US$2.5 million at December 31, 2023.

Changes in the defined benefit obligation and fair value of plan assets are, as follows:

In millions of US$	December 31 2023	2022
Actuarial gains (losses) recognized in the other comprehensive income		
Experience adjustment	2.1	0.8
Actuarial changes arising from changes in demographic assumptions	0.1	(0.2)
Actuarial changes arising from changes in financial assumptions	(7.7)	(44.7)
Return on plan assets (excluding amounts included in net interest expense)	8.0	36.2
Sub-total included in the other comprehensive income	**2.5**	**(7.9)**

(c) Plan assets

The major categories of plan assets as a percentage of the fair value of total plan assets are as follows:

	December 31 2023	2022
Equity securities	8%	6%
Debt securities	31%	29%
Real estate	6%	9%
Other	55%	56%

(d) Discount rate

The discount rate applied by the Group for entities operating in the euro zone is 3.50% in 2023 (3.75% in 2022). The discount rate is determined by reference to the yield on private investment grade bonds (AA) issued in euro.

The discount rate used for the United Kingdom is 5.60% in 2023 (4.70% in 2022).

An increase of 25 basis point in the discount rate would decrease the defined-benefit plan obligation by US$2.3 million, and a decrease of the discount rate of 25 basis point would increase that obligation by US$2.4 million.

A variation of 25 basis point in the discount rate would have no material impact, less than US$0.1 million, on service cost or on interest expense (income).

(e) Increase in future compensation

An increase of 25 basis point in the average rate of growth in future compensation would increase the defined-benefit obligation by US$0.4 million, and a 25 basis point decrease would reduce that obligation by US$0.4 million.

A variation of 25 basis point in the average rate of growth in future compensation would have no material impact, less than US$0.1 million, on service cost or on interest expense (income).

NOTE 17 CONTRACTUAL OBLIGATIONS, COMMITMENTS AND CONTINGENCIES

Status of contractual obligations

	December 31	
In millions of US$	**2023**	**2022**
Long-term debt obligations	1,516.4	1,555.3
Lease obligations	127.4	106.9
TOTAL CONTRACTUAL OBLIGATIONS	**1,643.8**	**1,662.2**

The following table presents payments in future periods relating to contractual obligations as at December 31, 2023:

	Payments due by period				
In millions of US$	**Less than 1 year**	**2-3 years**	**4-5 years**	**After 5 years**	**Total**
Financial debt	1.0	29.8	1,147.5	-	1,178.3
Other long-term obligations (cash interests)	99.0	195.7	43.4	-	338.1
Total long-term debt obligations	**100.0**	**225.5**	**1,190.9**	**-**	1,516.4
Lease obligations	47.7	47.7	13.8	18.2	127.4
TOTAL CONTRACTUAL OBLIGATIONS [(a) (b)]	**147.7**	**273.2**	**1,204.7**	**18.2**	**1,643.8**

(a) Payments in other currencies are converted into US dollar at December 31, 2023 exchange rates.
(b) These amounts are principal amounts and do not include any accrued interests.

Capacity Agreement and Idle Vessel Compensation

CGG and Shearwater signed a Capacity Agreement on January 8, 2020, a marine data acquisition service contract, under the terms of which CGG is committed to using Shearwater's vessel capacity in its Earth Data business over a five-year period, at an average of 730 days per year.

The Capacity Agreement provides compensation of Shearwater for days when more than one of its high-end seismic vessels are idle, up to a maximum of three vessels.

The amendment to the Capacity Agreement, signed with Shearwater on June 30, 2023, effective on July 1st, 2023, had no effect on the related residual commitment.

The maximum Idle Vessel Compensation amount for a full year came to US$(21.9) million. As of December 31, 2023, the residual commitment in respect of Idle Vessel Compensation through to the end of the five-year period on January 8, 2025, was US$(22.4) million.

Step-In Agreements

Following of our strategic partnership with Shearwater in Marine Data Acquisition and our exit from of seismic vessel operations, Shearwater CharterCo AS has entered into five-year bareboat charter agreements with the GSS subsidiaries, guaranteed by Shearwater, for the five high-end vessels equipped with streamers. As part of the Step-In Agreement, CGG has agreed to substitute itself for Shearwater CharterCo AS as charterer of GSS subsidiaries' five high-end seismic vessels (equipped with streamers) in the event of a payment default under the charter party between the GSS subsidiaries and Shearwater CharterCo AS.

In accordance with the Payment Instruction Agreement, the payments of the payables in relation with the Capacity Agreement and due by Shearwater CharterCo AS to the subsidiaries of GSS, under the Shearwater bareboat charters, are made directly by CGG.

Were the Step-in Agreements to be triggered:

- CGG would be entitled to terminate the Capacity Agreement;
- CGG would become the charterer of the five high-end seismic vessels equipped with streamers under bareboat charter agreements;
- CGG would be entitled, through pledge in its favor, to acquire all the share capital of GSS, knowing that GSS and its subsidiaries' principal assets would be the vessels and streamers and its principal liabilities would be the external debt associated with the vessels.

The Step-In Agreements will not impact the statement of financial position unless a trigger, as described above, occurs. In such circumstances, the obligations under the Capacity Agreement should be terminated and replaced by the obligations under the Step-In Agreements, representing a lower amount of commitment compared to the Capacity Agreement.

Legal proceedings, claims and other contingencies

From time to time the Company and/or its subsidiaries are involved in disputes and proceedings arising in the normal course of their business. To the best of the Company's knowledge, there are no pending or impending administrative, judicial or arbitration procedures that are likely to have, or have had over the last twelve-month period, any significant impact on the Group's financial position or profitability.

Legal proceedings related to the Safeguard Plan

Certain holders of convertible bonds ("Oceanes") due 2019 and 2020 lodged an appeal against the judgement dated December 1, 2017 approving the Safeguard Plan. The Appeals Court of Paris confirmed this judgment in a ruling dated May 17, 2018. By ruling dated February 26, 2020, the French Supreme Court rejected the appeal lodged by certain Oceanes bondholders against the ruling of the Appeals Court of Paris, thus putting a definitive end to this litigation.

By a ruling issued on November 24, 2020, the Commercial court of Paris acknowledged the completion of CGG's Safeguard Plan, following the early repayment in full of all its remaining debt under the Safeguard plan.

Third opposition to the decision issued by the Commercial Court of Paris

On December 22, 2020, Mr. Jean Gatty in his capacity as former representative of each of the two bodies of OCEANE bondholders and JG Capital Management (a management company of JG Partners, itself a former holder of the Oceanes) of which he is the director, filed three third-party appeals against the decision dated November 24, 2020 which had acknowledged the anticipated completion of CGG's Safeguard Plan.

Further to Mr. Jean Gatty's withdrawal of his judicial proceedings, the Commercial court of Paris Court rejected the third-party appeal by ruling (which is now final) dated May 7, 2021.

Criminal complaints

Furthermore, on February 2, 2021, CGG was informed that JG Capital Management also filed a criminal complaint seeking to call into question again the terms of the CGG's financial restructuring approved in 2017 under CGG's Safeguard Plan. However, this point regarding the differential treatment of creditors holding high yield bonds and Oceanes has been debated at length before various courts in a wholly transparent fashion.

On April 29, 2021, CGG filed a complaint for slanderous denunciation in connection with the complaint filed by JG Capital Management.

Writ of summons

On March 29, 2021, JG Capital Management issued a writ of summons to CGG before the Commercial Court of Paris in order to try and obtain, through an appeal for modifying an existing judgement ("*recours en révision*"), the cancellation of the judgment dated December 1, 2017, which approved the CGG Safeguard Plan. Two former Oceanes bondholders (i.e. SA Schelcher Prince Gestion and HMG Finance) joined JG Capital Management in this writ of summons in 2022.

As of the date the financial statements were approved, the corresponding judicial proceedings are still ongoing.

Guarantees

In millions of US$	December 31 2023	2022
OPERATIONS		
Guarantees issued in favor of clients (guarantees issued by the Company to mainly support bids made at the subsidiaries level)	184.2	165.6
Other guarantees and commitments issued (guarantees issued by the Company on behalf of subsidiaries and affiliated companies in favor of customs or other governmental administrations)	11.8	25.7
FINANCING ACTIVITIES		
Guarantees issued in favor of banks (mainly to support credit facilities)	-	0.1
TOTAL	**196.0**	**191.4**

The maturity dates of the net guarantees and commitments are as follows:

In millions of US$	Maturity				
	Less than 1 year	**2-3 years**	**4-5 years**	**After 5 years**	**Total**
OPERATIONS					
Guarantees issued in favor of clients	63.6	85.7	20.3	14.6	184.2
Other guarantees and commitments issued	-	11.6	-	0.2	11.8
TOTAL	**63.6**	**97.3**	**20.3**	**14.8**	**196.0**

Other

The Group has no other material off-balance sheet commitments that are not described above.

NOTE 18 OPERATING REVENUES

Disaggregation of operating revenues

The following table disaggregates our operating revenues by major sources for the period ended December 31, 2023 :

In millions of US$	December 31, 2023			December 31, 2022		
	DDE	**SMO**	**Consolidated Total**	**DDE**	**SMO**	**Consolidated Total**
EDA prefunding	144.4	-	144.4	134.1	-	134.1
EDA after sales	142.7	-	142.7	239.2	-	239.2
Total EDA	**287.1**	-	**287.1**	**373.3**	-	**373.3**
Geoscience	**335.5**	-	**335.5**	**284.2**	**-**	**284.2**
SMO Sales external goods	-	386.3	386.3	-	226.9	226.9
SMO Services rendered and Royalties	-	64.5	64.5	-	40.2	40.2
SMO Leases	-	2.1	2.1	-	2.2	2.2
Inter-segment revenues	-	0.2	0.2	-	-	-
SMO	-	**453.1**	**453.1**	**-**	**269.3**	**269.3**
Inter-segment revenues	-	(0.2)	**(0.2)**	**0.1**	**-**	**0.1**
TOTAL OPERATING REVENUES	**622.6**	**452.9**	**1,075.5**	**657.6**	**269.3**	**926.9**

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Analysis by geographical area – Analysis of operating revenues by customer location

In millions of US$	2023		2022	
North America	248.0	23,1%	273.8	29.5%
- of which USA	*243.6*	*22.6%*	*264.5*	*28.5%*
Central and South Americas	108.2	10,1%	133.0	14.4%
Europe, Africa and Middle East	409.8	38,1%	340.2	36.7%
- of which France	*21.9*	*2.0%*	*21.6*	*2.3%*
- of which Norway	*178.1*	*16.6%*	*110.1*	*11.9%*
Asia Pacific	309.5	28,7%	179.9	19.4%
- of which China	*221.1*	*20.6%*	*92.7*	*10.0%*
TOTAL OPERATING REVENUES	**1,075.5**	**100%**	**926.9**	**100%**

Analysis of operating revenues by category

In millions of US$	2023		2022	
Services rendered and royalties	543.4	50,5%	458.5	49.5%
Sales of goods	387.2	36,0%	226.9	24.5%
After sales on Earth Data surveys	142.7	13,3%	239.2	25.8%
Leases	2.2	0,2%	2.3	0.2%
TOTAL OPERATING REVENUES	**1,075.5**	**100%**	**926.9**	**100%**

In 2023, the Group's two most significant customers accounted for 16.8% (Equipment Segment), and 5.8% of the Group's consolidated revenues, compared to 8.8% and 7.6% in 2022.

Contracts balances

The contracts balances are presented below:

In millions of US$	Balance at December 31, 2023	Balance at December 31, 2022
Receivables	**245.6**	**253.6**
Unbilled revenue	65.3	54.7
Total contract assets	**65.3**	**54.7**
Advance billing	(24.0)	(29.4)
Deferred revenues	(197.6)	(142.9)
Total contract liabilities	**(221.6)**	**(172.3)**

The level of deferred revenues is a direct consequence of the impact of IFRS 15 as the Earth Data prefunding revenue not recognized before the final data are made available for use to customers increase the deferred revenues balance.

The revenues generated for the period ended December 31, 2023 from contract liability balances as at January 1, 2023 amount to US$100.6 million.

The revenues generated for the period ended December 31, 2023 from performance obligations satisfied (or partially satisfied) prior to January 1, 2023 amount to US$41.8 million.

The revenues generated for the period ended December 31, 2022 from contract liability balances as at January 1, 2022 amount to US$89.8 million.

The revenues generated for the period ended December 31, 2022 from performance obligations satisfied (or partially satisfied) prior to January 1, 2022 amount to US$104.2 million.

Backlog – Transaction price allocated to remaining performance obligations

The aggregate amount of the transaction price allocated to the performance obligations that are unsatisfied or partially unsatisfied (i.e. the contractual backlog) as at December 31, 2023 amounts to US$632.8 million for continuing operations. Out of this amount, the Group expects to recognize US$560.6 million in 2024 and US$72.2 million in 2025 and beyond for continuing operations. These amounts include Earth Data prefunding revenues recognized upon the final data are made available for use to customers.

As of December 31, 2022, the aggregate amount of the transaction price allocated to the performance obligations that were unsatisfied or partially unsatisfied amounts to US$587.7 million for continuing operations.

Assets recognized in respect of the costs to obtain or fulfill a contract

The Group has no cost falling into the definition of a cost to obtain or fulfill a contract.

NOTE 19 ANALYSIS BY OPERATING SEGMENT

Group organization

Segment presentation and discontinued operations

The financial information by segment is reported in accordance with our internal reporting system and provides internal segment information that is used by the management to drive and measure performance.

In November 2018, we announced the new strategy for our Group that included the transition to an asset-light model by reducing CGG's exposure to the Contractual Data Acquisition business. All the Contractual Data Acquisition segment has been sold or wind down. The residual positions have been presented as discontinued operations in our income statement in accordance with IFRS 5 since 2018.

Our DDE and SMO segments are reported in continuing operations.

DDE

This operating segment comprises the Geoscience business lines (processing and imaging of geophysical data, reservoir characterization, geophysical consulting and software services, geological data library and data management solutions) and the Earth Data business line (development and management of a seismic and geological data library that we undertake and license to a number of clients on a non-exclusive basis). Both activities regularly combine their offerings, generating overall synergies between their respective activities.

Beyond the core, we leveraged on our technologies and expertise to address the fast growing markets of Digital Sciences and Energy Transition.

In Digital Sciences, we focused on our long-standing leadership in digital technology, especially as applied to geoscience, to develop an integrated expert solution including the hardware platform, middleware and software services that are required to cost effectively support advanced cloud-based High-Performance Computing (HPC) workflows and data transformation services. In this platform, we notably propose data, algorithm and software as a service (DaaS/SaaS) on our CGG cloud.

In the Energy Transition, we propose services and technologies dedicated to Carbon Capture Utilization and Storage (CCUS), Geothermal, Environmental Sciences and Minerals and Mining. CCUS, which represents a substantial submarket, is one of the key enablers to reduce carbon footprint. Many energy companies are planning CCUS significant projects and increasingly incorporate such technologies in their development. Low carbon energy, such as hydrogen, will also require long term storage and monitoring. To be successful, these new businesses require a detailed understanding of the subsurface, domain where CGG excels, through its advanced geoscience and digital science technologies and its global earth data library.

SMO

This operating segment comprises our manufacturing and sales activities for geophysical equipment used for data seismic acquisition, both on land and marine. Additionally, its unique portfolio of industry leading sensor technology allows to bring the benefits of its advanced sensor technology to the fast growing Monitoring and Observation market, from structural health monitoring (SHM) to monitoring solutions for energy transition (CCUS notably) and environment. The SMO segment carries out its activities through our subsidiary Sercel.

Internal reporting and segment presentation

Before the implementation of IFRS 15, the Group applied the percentage of completion method for recognizing Earth Data prefunding revenues. Following the implementation of IFRS 15, the Group recognizes Earth Data prefunding revenues only upon delivery of final processed data (when the performance obligation is fulfilled).

Although IFRS fairly presents the Group's statement of financial position, for internal reporting purposes CGG's management continues to apply the pre-IFRS 15 revenue recognition principles, with Earth Data prefunding revenues recorded based on percentage of completion. CGG's management believes this method aligns revenues closely with the activities and resources used to generate it and provides useful information as to the progress made on Earth Data surveys, while also allowing for useful comparison across time periods.

CGG therefore presents the Group's results of operations in two ways:

- the "Reported" or "IFRS" figures, prepared in accordance with IFRS, with Earth Data prefunding revenues recognized upon delivery of the final data (when the performance obligation is fulfilled); and
- the "Segment" figures, for purposes of internal management reporting, prepared in accordance with the Group's previous method for recognizing Earth Data prefunding revenues.

Other companies may present segment and related measures differently than we do. Segment figures are not a measure of financial performance under IFRS and should not be considered as indicators of our operating performance or an alternative to other measures of performance in accordance with IFRS.

Alternative performance measures

As a complement to Operating Income, EBIT may be used by management as a performance measure for segments because it captures the contribution to our results of the significant businesses that are managed through our joint ventures. We define EBIT as Operating Income plus our share of income in companies accounted for under the equity method.

We define EBITDAs as earnings before interest, tax, income from equity affiliates, depreciation, amortization net of amortization expense capitalized to Earth Data, and cost of share-based compensation. Share-based compensation includes both stock options and shares issued under our share allocation plans. EBITDAs is presented as additional information because we understand that it is a measure used by certain investors to determine our operating cash flow and historical ability to meet debt service and capital expenditure requirements.

Inter-segment transactions are made at arm's length prices. They related primarily to geophysical equipment sales made by the SMO segment to the Contractual Data Acquisition business lines. These inter-segment revenues and the related earnings are eliminated in consolidation in the tables that follow under the column "Eliminations and other".

Operating Income and EBIT may include non-recurring or restructuring items, which are disclosed in the reportable segment if material. General corporate expenses, which include Group management, financing, and legal activities, have been included in the column "Eliminations and other" in the tables that follow. The Group does not disclose financial expenses or financial revenues by segment because they are managed at the Group level.

Identifiable assets are those used in the operations of each segment. Unallocated and corporate assets consist of "Investments and other financial assets, net" and "Cash and cash equivalents" of our consolidated statement of financial position. The group does not track its assets based on country of origin.

Capital employed is defined as "total assets" excluding "Cash and cash equivalents" less (i) "Current liabilities" excluding "Bank overdrafts" and "Current portion of financial debt" and (ii) non-current liabilities excluding "Financial debt".

Seasonality

We have historically experienced higher levels of activity during the fourth quarter, since our clients seek to fully spend their annual budget before year-end. SMO deliveries and Earth Data after-sales usually reflect this pattern.

Analysis by segment (continuing operations)

The tables below provide a reconciliation of the Group's Segment figures to the Group's IFRS figures:

	2023					
In millions of US$, except for assets and capital employed in billions of US$	**DDE**	**SMO**	**Eliminations and other [b]**	**Segment figures**	**IFRS 15 adjustments**	**Consolidated Total / IFRS figures**
Revenues from unaffiliated customers	672.0	452.9	-	1,124.9	(49.4)	1,075.5
Inter-segment revenues	-	-	-	-	-	-
Operating revenues	**672.0**	**452.9**	**-**	**1,124.9**	**(49.4)**	**1,075.5**
Depreciation and amortization (excluding Earth Data surveys)	(57.9)	(32.0)	(1.6)	(91,5)	-	(91.5)
Impairment and amortization of Earth Data surveys	(183.3)	-	-	(183.3)	30.2	(153.1)
Operating income [a]	**138.9**	**26.3**	**(27.0)**	**138.2**	**(19.2)**	**119.0**
EBITDAs	**366.3**	**58.6**	**(24.5)**	**400.4**	**(49.4)**	**351.0**
Share of income from companies accounted for under the equity method	0.8	-	(2.8)	(2.0)	-	(2.0)
Earnings Before Interest and Tax	**139.7**	**26.3**	**(29.8)**	**136.2**	**(19.2)**	**117.0**
Capital expenditures (excluding Earth Data surveys) [c]	40.5	19.9	0.5	60.9	-	60.9
Investments in Earth Data surveys, net of cash	171.1	-	-	171.1	-	171.1
Capital employed [d]	**1.5**	**0.5**	**-**	**2.0**	**-**	**2.0**
TOTAL IDENTIFIABLE ASSETS	**1.9**	**0.7**	**-**	**2.6**	**-**	**2.6**

(a) Includes US$(36.6) million of impairment loss in DDE segment.
(b) "Eliminations and other" includes US$(27.5) million of general corporate expenses.
(c) Capital expenditures included capitalized development costs of US$(15.4) million.
(d) Capital employed related to discontinued operations are included under the column "Eliminations and other".

In millions of US$, except for assets and capital employed in billions of US$	2022					
	DDE	**SMO**	**Eliminations and other** [(b)]	**Segment figures**	**IFRS 15 adjustments**	**Consolidated Total / IFRS figures**
Revenues from unaffiliated customers	659.1	269.3	0.1	928.5	(1.6)	926.9
Inter-segment revenues		-	-	-	-	-
Operating revenues	**659.1**	269.3	0.1	928.5	(1.6)	926.9
Depreciation and amortization (excluding Earth Data surveys)	(60.8)	(29.8)	(1.6)	(92.2)	-	(92.2)
Impairment and amortization of Earth Data surveys	(174.5)	-	-	(174.5)	3.1	(171.4)
Operating income [(a)]	**215.8**	(10.9)	(24.8)	180.1	1.5	181.6
EBITDAs	436.3	19.2	(21.7)	433.8	(1.6)	432.2
Share of income from companies accounted for under the equity method[(c)]	(2.5)	-	(16.0)	(18.5)	-	**(18.5)**
Earnings Before Interest and Tax	213.3	(10.9)	(40.8)	161.6	1.5	163.1
Capital expenditures (excluding Earth Data surveys) [(d)]	29.9	24.3	0.3	54.5	-	54.5
Investments in Earth Data surveys, net of cash	205.3	-	-	205.3	-	205.3
Capital employed [(e)]	**1.5**	0.6	(0.1)	2.0	-	2.0
TOTAL IDENTIFIABLE ASSETS	**1.8**	**0.7**	**0.1**	**2.6**	**-**	**2.6**

(a) Includes US$(22.1) million of impairment loss.
(b) "Eliminations and other" includes US$(19.9) million of general corporate expenses.
(c) includes impairment losses of CGG's stake for Reservoir Evaluation Services for US$(2.2) million and for Argas for US$(16.0) million.
(d) Capital expenditures included capitalized development costs of US$(21.3) million.
(e) Capital employed related to discontinued operations are included under the column "Eliminations and

Analysis of operating non-current assets by geographical area

Operating non current assets include the net book value of tangible and intangible assets.

In millions of US$	**2023**		**2022**	
USA	96.6	12.3%	99.6	13.8%
Norway	200.6	25.5%	161.4	22.4%
France	250.8	31.9%	292.1	40.5%
Brasil	73.6	9.4%	54.8	7.6%
United Kingdom	124.3	15.8%	78.0	10.8%
Other non significant geographical area individually	39.9	5.1%	35.6	4.9%
TOTAL	**785.8**	**100%**	**721.5**	**100%**

NOTE 20 RESEARCH AND DEVELOPMENT COSTS

Research and development expenses breakdown is as follows:

	December 31	
In millions of US$	**2023**	**2022**
Research and development costs	(61.2)	(57.4)
Development costs capitalized	16.8	21.3
Research and development expensed	**(44.4)**	**(36.1)**
Government grants recognized in income	18.3	17.1
RESEARCH AND DEVELOPMENT COSTS – NET	**(26.1)**	**(19.0)**

Research and development expenditures relate mainly to:

- for DDE segment, projects related to Geoscience activities; and
- for SMO segment, projects relating to seismic data recording equipments and improvement of existing systems.

NOTE 21 OTHER REVENUES AND EXPENSES

In millions of US$	December 31	
	2023	**2022**
Impairment of assets	-	(5.9)
Restructuring costs	(0.9)	(2.8)
Change in restructuring provisions	(0.3)	1.0
Other restructuring expenses	-	–
Impairment and restructuring expenses – net	**(1.2)**	**(7.7)**
Other revenues (expense)	(0.3)	3.1
Exchange gains (losses) on hedging contracts	(1.5)	(7.1)
Gains (losses) on sales of assets	1.6	37.6
OTHER REVENUES (EXPENSES) – NET [(a)]	**(1.4)**	**25.9**

(a) Other revenues (expenses) – net excluding income (loss) on discontinued operations as explained in note 5.

Year ended December 31, 2023

In 2023, the other revenues (expenses) - net amounted to US$(1.4) million. It mainly encompasses:

- a US$(1.6) million loss related to the sale of the stake in Arabian Geophysical and Surveying Company (ARGAS) *(note 2)*,
- a US$2,4 million gain related to the sale of the non-consolidated investment in Interactive Network Technologies Inc Company,
- a US$0.9 million gain related to the sale of GeoSoftware,
- a US$(0.9) million of restructuring costs, and
- a US$(1.5) million loss on hedging instruments *(note 14)*.

Year ended December 31, 2022

In 2022, the other revenues (expenses) - net amounted to US$25.9 million. It mainly encompasses:

- some impairment losses for US$(5.9) million:
- a US$(1.6) million impairment loss on buildings right-of-use assets, and
- a US$(4.3) million non-recurring impairment loss on one Earth Data survey in Norway due to an agreement between government and anti-oil factions to seriously delay licensing rounds until after 2025 in the area of one specific survey in Norway *(note 10)*;
- some gains and losses on sales of assets for US$37.6 million:
- a US$34.0 million gain related to the sale of the US land Earth Data library *(note 2)*,
- a US$5.2 million gain related to the sale and leaseback of CGG headquarters *(note 2)*, and
- a US$(1.5) million and US$(0.3) million losses related to the sale of GeoSoftware and Smart Data Solutions *(note 5)*;
- a US$(1.8) million of restructuring costs and a US$3.1 million of other revenues, mainly corresponding to the early termination of a lease regarding SMO segment and severance payments from DDE; and
- a US$(7.1) million loss on hedging instruments.

GeoSoftware

On October 1, 2021, the sale of CGG's GeoSoftware business to Topicus and Vela Software for the total cash consideration of US$95 million was completed, subject to certain closing adjustments, mainly related to working capital adjustments.

CGG and TSS have reached an agreement on all open issues and net cash flow generated by the GeoSoftware activity from October 1, 2021 to May 31, 2022.

This resulted in a net cash outflow for US$(1.7) million paid by CGG on July 5, 2022.

Although divested in the framework agreement, CGG has continued to operate on behalf of the buyer in China, until June 1, 2022 – and in Malaysia and Indonesia, until July 31, 2023; dates on which local agreements could be signed.

As of December 31, 2023, CGG recognized in respect of the business and disposal of the GeoSoftware activity:

- a gain of US$0.9 million in income statement from continuing operations, driven by adjustments on local divestitures in Malaysia and Indonesia,
- a gain of US$1.3 million derived from the net cash flow generated by the GeoSoftware business led by CGG deduction made of the remittance to the buyer.

A net payable of US$(1.5) million remains to be transferred to TSS in respect of the sale at December 31, 2023.

NOTE 22 COST OF FINANCIAL DEBT

In millions of US$	December 31	
	2023	**2022**
Current interest expenses related to financial debt	(94.9)	(93.2)
Interest expense on lease liabilities	(8.4)	(7.0)
Income from cash and cash equivalents	8.0	1.7
COST OF FINANCIAL DEBT, NET	**(95.3)**	**(98.5)**

NOTE 23 OTHER FINANCIAL INCOME (LOSS)

In millions of US$	December 31	
	2023	**2022**
Exchange gains (losses), net	(1.0)	(0.3)
Other financial income (loss), net	(2.8)	0.7
OTHER FINANCIAL INCOME (LOSS)	**(3.8)**	**0.4**

At December 31, 2023, other financial loss amount to a US$(3.8) million, including:

- a US$(2.6) million loss related to hedging transactions costs;
- a US$(2.6) million loss related to a fee for the derecognition of the French research tax credit asset.
- a US$1.3 million gain related to the early termination of Bolney datacenter in the United-Kingdom.
- a US$0.9 million gain related to financial interests income mainly due to interest rate applicable to brazilian tax receivables; and
- a US$(1.0) million foreign exchange loss, mainly driven by the Euro, the Brazilian real, British pound, Norvegian krone and Chinese yuan exposures.

At December 31, 2022, other financial income (loss) amount to a US$0.4 million gain, including:

- a US$(1.5) million loss related to hedging transactions costs;
- a US$1.9 million gain related to financial interests income mainly due to interest rate applicable to brazilian tax receivables;
- a US$(0.3) million foreign exchange loss, mainly driven by the Euro and the Brazilian real exposures.

NOTE 24 INCOME TAXES

Income tax benefit (expense)

CGG SA and its subsidiaries compute income taxes in accordance with the applicable tax legislations in numerous countries where the Group operates. The tax regimes and income tax rates legislated by these taxing authorities vary substantially.

	December 31	
In millions of US$	**2023**	**2022**
Current income tax expense	(12.2)	(15.0)
Adjustments on income tax recognized in the period for prior periods	0.7	(0.3)
Deferred taxes on temporary differences for the period	(4.9)	6.9
Deferred taxes recognized in the period for prior periods	2.4	(8.8)
TOTAL INCOME TAX BENEFIT (EXPENSE)	**(14.0)**	**(17.2)**

Income tax reconciliation

The reconciliation between income tax benefit (expense) in the income statement and the theoretical tax benefit (expense) is detailed below:

In millions of US$	**2023**	**2022**
Consolidated net income (loss) from continuing operations	**5.9**	**66.3**
Income taxes	**(14.0)**	**(17.2)**
Income (loss) from continuing operations before taxes	19.9	83.5
Net income (loss) from companies accounted for under the equity method [(a)]	(2.0)	(18.5)
Theoretical tax basis	**17.9**	**65.0**
Enacted tax rate in France	25.83%	25.83%
Theoretical tax	**(4.6)**	**(16.8)**
TAX DIFFERENCES:		
Differences in tax rates between France and foreign countries [(b)]	2.9	1.1
Adjustments on the tax expense recognized in the period for prior periods	0.7	(0.3)
Adjustments on the deferred tax expense recognized in the period for prior periods [(C)]	2.4	(8.8)
Valuation allowance on deferred tax assets previously recognized on losses on foreign entities [(d)]	10.9	7.1
Other permanent differences (including withholding taxes)	(11.1)	(8.9)
Deferred tax unrecognized on losses and other items of the period [(e)]	(16.7)	(45.5)
Deferred tax unrecognized on losses of prior periods [(f)]	1.5	54.9
INCOME TAXES	**(14.0)**	**(17.2)**

(a) Related to the net loss on our stake in Argas until the date of its sale in 2023. Related for 2022 to the impairment loss triggered by the remeasurement to recoverable value of our Stake in Argas and Reservoir Evaluation Services LLP.

(b) Mainly corresponds to difference in tax rates between France and US, UK, Norway and Brazil in 2023 and 2022.

(c) Corresponds to deferred prior year adjustments in Canada, Norway and UK in 2023.

(d) Mainly corresponds to the reassessment of the deferred tax assets on losses in US in 2023 and in UK in 2023 and 2022.

(e) Related to the Franch and US tax groups deferred tax not recognized on losses carried forward of the period according to short and medium-term uncertainties and revised tax planning.

(f) Mainly corresponds to the use of tax losses carried forward for which no DTA was recognized in Australia in 2023 and in US in 2022.

Deferred tax assets and liabilities

In millions of US$	December 31	
	2023	2022
Total deferred tax assets	**29.9**	**24.2**
Total deferred tax liabilities	**(24.3)**	**(18.7)**
TOTAL DEFERRED TAXES, NET	**5.6**	**5.5**

NET DEFERRED TAX ASSETS (LIABILITIES) BY NATURE

In millions of US$	December 31	
	2023	2022
Non-deductible provisions (including provisions for pensions and profit sharing)	3.4	5.3
Tangible assets	(4.5)	6.2
Effects of translation adjustments not recognized in income statement	(4.1)	(0.6)
Earth Data surveys (including deferred revenues)	(33.6)	(33.1)
Assets reassessed in purchase accounting of acquisitions	(17.8)	(18.1)
Development costs capitalized	6.4	(11.1)
Other deferred revenues	0.0	(0.7)
Research tax credits	9.8	18.8
Other	5.9	3.6
Total deferred tax assets net of deferred tax assets (liabilities) related to timing differences	**(34.5)**	**(29.7)**
Tax losses carried forward	40.1	35.2
TOTAL DEFERRED TAX ASSETS NET OF DEFERRED TAX (LIABILITIES)	**5.6**	**5.5**

DEFERRED TAX ASSETS (LIABILITIES) PER TAX GROUP AS AT DECEMBER 31, 2023

In millions of US$	France	Foreign countries	Total [a]
Net deferred tax assets (liabilities) related to timing differences	-	(34.5)	(34.5)
Deferred tax assets recognized on tax loss carried forward [b]	-	40.1	40,1
TOTAL	**-**	**5.6**	**5.6**

(a) *The deferred taxes recognized in respect of tax losses are indefinitely carried forward.*
(b) *Notes 1.4.6 to the consolidated financial statements on the recognition method used for deferred tax assets.*

Net operating losses carried forward not recognized at December 31, 2023

In millions of US$	France	Foreign countries	Total
Losses scheduled with a maturity date less than 1 year	–	1.3	1.3
Losses scheduled with a maturity date more than 1 year	–	131.3	131.3
Losses carried-forward indefinitely	2,419.9	119.4	2,539.3
TOTAL	**2,419.9**	**252.0**	**2,671.9**

Tax audit and litigation

Brazil

ISS disputes

The Municipality of Rio de Janeiro (hereafter "the Municipality") has assessed Veritas do Brasil Ltda services taxes (ISS) on MCDL revenues for 2001 to 2008 - which has been duly disputed. In the meanwhile, in June 2004, Veritas do Brasil Ltda has launched a declaratory to recognize that there is no ISS on Earth Data licenses and requesting the refund for amounts unduly paid in the past for an amount of US$3.7 million.

Veritas do Brasil Ltda has obtained a final decision in its favor in the declaratory action in February 2014. Further to this decision, the tax foreclosure covering 2001 to May 2003 has been officially terminated in March 2015 and the tax assessment cancelled in January 2016.

In February 2016, the Municipality filed a Rescission Action in order to have the favorable decision from the declaratory action cancelled based on two arguments: i) on the merit of the refund and ii) on the refund approved. Despite several back and forth the case is still ongoing. The Group considers that there is no proper ground for this action, but it can jeopardize the refund from the declaratory action as it is possible that judge requests Veritas to present proof of taking ISS burden or presenting an authorization from clients to receive such amounts. We are reaching our clients to have a letter authorizing us to get the refund but in the meantime the refund amounts are fully reserved (US$3.7 million).

With regards to the paperwork from the refund related to the declaratory action, in May 2021, judge decides to request issuance of the refund paperwork without the interest portion and requests that interest paperwork is issued only after ruling of the rescission action. In June 2021, paperwork related to principal plus monetary correction (US$2 million) was issued while the paperwork related to the interest portion (US$ 1.7 million) has been postponed due to such decision. In June 2021 Veritas filed an appeal to have paperwork from interest issued without waiting ruling on the rescission action.

On June 29, 2021, the refund paperwork was issued and signed by the judge (without the interest portion). In August 2022, the judge from the declaratory action suspended the case until decision of the rescission action.

In October 2023 the judge requested evidence, we filed a motion for reconsideration of the decision, arguing that evidence of the amount recovered should only be presented during liquidation of the decision but this was rejected. We are reaching our clients to have a letter authorizing us to get the refund.

REFIS payments 2009

Veritas do Brasil Ltda participated in November 2009 in a voluntary disclosure and settlement program, allowing companies to settle old debts in exchange for total abatement of penalties and rebate of interest, provided they abandoned their ongoing litigations. The Brazilian IRS issued a tax assessment charging penalty on the non-recognition of the offset request that paid the debts later included in Refis. On June 24, 2019, Veritas do Brasil Ltda was notified of the first instance decision which was unfavorable to Veritas do Brasil Ltda. On July 24, 2019, Veritas do Brasil Ltda filed an appeal against the unfavorable decision. Considering that Veritas do Brasil Ltda has all proper documentation, the risk (US$2.6 million) is considered remote and is not reserved. No update in 2023.

Withholding tax and CIDE disputes

Following a 2012 audit on year 2009, CGG do Brasil Participacoes Ltda was reassessed US$5.3 million of withholding tax on charter contracts. The reassessment was disputed. Following an unfavourable decision from the Administrative Court in August 2018, CGG do Brasil Participacoes Ltda filed a special appeal. Following refusal of the special appeal in February 2022, CGG filed a Writ of Mandamus to try and have our special appeal accepted for ruling. The Judge granted CGG an injunction to suspend administrative case until final decision on the new writ, but this was overturned following an appeal from the tax authorities. CGG filed a petition in response of the tax authorities answer in March 2022. On September 30, 2022, the Judge issued a decision recognizing the illegality of the application of the administrative tie breaking vote and annulling the judgement of the special appeal filed in the records of administrative proceedings. The tax authorities filed an appeal on October 13, 2022. No update in 2023.

No provision is recognized as CGG do Brasil Participacoes Ltda considers the risk less likely than not to happen.

In 2016, a new audit was conducted for fiscal year 2013. CGG do Brasil Participacoes Ltda received tax reassessments on December 20, 2017, for amounts of US$10.4 million for withholding tax and US$9.2 million for CIDE. The company appealed in January 2018 against the reassessments. In August 2018, both WHT and CIDE on charter were ruled favorably to CGG do Brasil Participacoes Ltda and the Brazilian Tax authorities appealed against such decisions.

Following several appeals and motions to clarify, on August 22, 2022, our special appeal was dismissed and CGG were notified to pay the debt by December 6, 2022. CGG filed a writ to cancel the last administrative decision and have a new decision. As the writ decision was published after the payment deadline, CGG filed an action to cancel the assessment. Injunction granted suspending the debt but following various back and forth, on May 15, 2023, the judge issued a decision maintaining the case and on merit against CGG. A Motion to clarify was presented on May 25, 2023, but it was dismissed on August 31, 2023 and the guarantee was presented. On Oct 2, 2023, we filed an appeal against the decision and counterarguments were filed by the National Treasury on November 21, 2023. Case records were sent to the court on November 28, 2023. No provision is recognized as CGG do Brasil Participacoes Ltda considers the risk less likely than not to happen.

In October 2019, the Taxpayers Council ruled the withholding tax case in favor of CGG do Brasil Participacoes Ltda. On October 25, CGG won the case. Waiting IRS to be notified to close the case. Litigation closed.

In 2021 and 2022, CGG do Brazil went under audit for WHT and CIDE on charter and services contracts for 2018. IRS closed the audit and on January 10, 2023, CGG received tax assessments referring to payments performed in 2018 for WHT on charter US$0.8m and CIDE on charter US$13.5m. On February 09, 2023, CGG presented its appeal.

No provision is recognized as CGG do Brasil Participacoes Ltda considers the risk less likely than not to happen.

Exclusion of ISS from PIS and COFINS basis

Following a Supreme Court decision with general application to exclude ICMS from PIS/COFINS basis because it is not a revenue and therefore is excluded from the scope of such taxes, CGG do Brasil Participacoes Ltda decided to pursue the same discussion regarding ISS included in the PIS/COFINS basis. CGG do Brasil Participacoes Ltda requested to stop paying it for the future and to get a refund of amounts unduly paid from 2015 to 2020 for an amount of US$2.4 million. A Writ of mandamus was filed on July 20, 2020. On July 23, 2020, injunction was granted to start excluding ISS from PIS/COFINS basis suspending its liability (US$ 0.9 million has been excluded so far). On July 27, 2020, the IRS appealed from the injunction decision. Following various appeals and motions to clarify throughout 2020 – 2022 on April 6, 2022, a ruling session occurred. Judges decided to maintain a favorable decision to CGG on the merit and to limit the refund according to ICMS precedent from Supreme Court (from March 2017 onwards). Again there were further motions to clarify and appeals on both sides and on October 31, 2022, CGG filed a Special Appeal and on November 22, 2022, CGG presented counter arguments to both IRS appeal (Special and Extraordinary). No update in 2023.

No asset has been recognized so far as the Group believes Supreme Court can try to reduce the rights related to refunds.

Exclusion of PIS/COFINS from its own basis

Following a Supreme Court decision with general application to exclude ICMS from PIS/COFINS basis because it is not a revenue and therefore should be out of the scope of such taxes, CGG do Brasil Participacoes Ltda decided to pursue the same discussion regarding PIS/COFINS included in its own basis. CGG do Brasil Participacoes Ltda requested to stop paying it for the future and to get a refund of amounts unduly paid from 2015 to 2020 for US$6.4 million. CGG do Brasil Participacoes Ltda filed a Writ of mandamus on July 21, 2020. On July 22, 2020, an injunction was granted to start excluding PIS/COFINS from its own basis suspending its liability. On July 27, 2020, the IRS appealed from the injunction decision and judge maintained our injunction in the same date. Following various appeals and motions to clarify throughout 2020, in March 2021, second instance decision was unfavorable to CGG. Starting from there, all amounts at stake for future exclusion of PIS/COFINS from their own basis are being deposited judicially (US$ 3.8 million of deposits so far). In August 2021, CGG filed appeals to Superior Court of Justice and Supreme Court. On September 26, 2021, tax authorities presented counterarguments to our appeals. On October 27, 2021, decision to suspend ruling on the case until a final decision is reached at Supreme Court level on the general repercussion case. No update in 2023.

No provision on the deposits is recognized as CGG do Brasil Participacoes Ltda considers the risk less likely than not to happen. Also, no asset has been recognized so far as the Group believes Supreme Court can try to reduce the rights related to refunds.

CGG Services SAS

CGG Services SAS initiated in 2011 an action in order to obtain that withholding taxes not be applied to services payments received from Brazil in application of the tax treaty between France and Brazil. Amounts of WHT supposedly due on services paid to France between April 2012 and June 2014 were deposited judicially in such proceeding. In mid 2014, following a public decision rendered by the Public Attorney office that states that non-technical services should not be subject to withholding taxes if a treaty applies, the IRS published a new Declaratory Act 5/2014 that envisages correct application of treaties. The recoverable judicial deposit and the recoverable WHT paid are booked as receivables (US$10.8 million) in CGGS SAS's books. There is no reserve on the principal.

In May 2017, the Tax Authorities filed a petition claiming that CGGS SAS had a Permanent Establishment (PE) in Brazil and/or that the remittances were royalties, trying to deny the application of the French-Brazilian Tax Treaty. In August, 2017, CGGS SAS presented a petition to refute the arguments brought by the national treasury, especially the one related to the existence of a PE in Brazil. On October 30, 2017, the Brazilian Tax Authorities filed a petition refuting the Company's arguments.

An opinion from an academic expert was attached to the case on December 02, 2019. On June 02, 2020, our lawyers had a VC with the judge. On September 1, 2020, the judge decided unfavorably to CGG Services SAS considering that article 7 of French-Brazilian Tax Treaty only prevents WHT on payment of profits of business and not on any income/revenue. On September 24, 2020, CGG Services SAS filed an appeal from such decision. On December 1, 2020, the Brazilian Tax Authorities presented their counterarguments to the CGG Services SAS appeal.

In 2021, several meetings between judges in charge were held without a final decision and on December 28, 2022, a decision against CGG was published. On January 26, 2023, CGG filed a motion to clarify trying the annulment of the judgement. The IRS also filed a motion to clarify. Ruling session on August 15, 2023. After the vote of the judge rapporteur, who dismissed the company's motion for clarification and granted the National Treasury's plea, the second judge requested suspension of the case so he can analysis better.

Consequently, CGG's position has not changed as a result of the events of 2023.

Peru

The Peru tax authorities assessed additional withholding taxes on technical services for 2012 and 2013 for CGG Land (U.S.) Inc. Sucursal del Peru for an amount of US$17.8 million (including interest). The company disputed the reassessment. A final resolution in favor of CGG was notified in May 2017. A nullity action was launched against this resolution by the Tax Authorities. In February 2019, the nullity action was denied by the judge. In February 2019, SUNAT appealed against the decision and in September 2019, CGG Land (U.S.) Inc. Sucursal del Peru was notified of the second instance decision in which the Superior Court declared the nullity of the first instance decision and ordered to the first instance to rule again the case. CGG Land (U.S.) Inc. Sucursal del Peru filed an annulment action to cancel this decision, which has been rejected. CGG Land (U.S.) Inc. Sucursal del Peru has provided all relevant documents for the new first instance decision and is waiting for the decision. Oral report occurred in August 2021. Waiting for the decision of the case, expected to be released in 2024.

No provision has been recognized, as the risk is considered as less likely than not to happen.

NOTE 25 PERSONNEL

The analysis of personnel (including discontinued operations) is as follows:

	December 31	
	2023	**2022**
Personnel employed under French contracts	976	955
Personnel employed under local contracts	2,539	2,461
TOTAL	**3,515**	**3,416**

The total cost of personnel employed amounted to US$383.2 million in 2023 (or US$382.7 million excluding Contactual Data Acquisition, the CGG 2023 Plan, Smart Data Solutions and Geosoftware).

The total cost of personnel employed amounted to US$334.0 million in 2022 (or US$332.4 million excluding Contactual Data Acquisition and the CGG 2022 Plan, Smart Data Solutions and Geosoftware).

NOTE 26 KEY MANAGEMENT PERSONNEL COMPENSATION

The table below presents the director fees and the CEO compensation paid.

in US$	December 31	
	2023	**2022**
Short-term employee benefits paid [(a)]	1,854,166	1,812,700
Directors' fees	448,294	409,392
Post-employment benefits – pension [(b)]	14,247	12,995
Share-based payments [(c)]	390,532	379,325

(a) Excludes employers' contributions.
(b) Cost of services rendered and interest expense.
(c) Expense recognized in the income statement related to stock option and performance shares plans.

Contractual termination indemnity in force – Chief Executive Officer

Sophie ZURQUIYAH benefits, as Chief Executive Officer since her appointment in 2018, from a contractual termination indemnity in the event of termination of her corporate office. As part of her renewal by the Board of Directors on May 5, 2022, this indemnity was maintained under the following terms and conditions:

- Sophie ZURQUIYAH benefits from a contractual termination indemnity in the event of dismissal, and in the event of non-renewal of her term of office within twelve months following a change of control, in the absence of any situation of failure characterized by the non-achievement of the performance conditions described below;
- no payment may be made in the event of serious or gross misconduct, regardless of the reason for departure.

The payment of the contractual termination indemnity will depend on the average rate of achievement of the objectives relating to the annual variable portion of Sophie ZURQUIYAH's remuneration for the last three financial years ended prior to the departure date, in accordance with the following rule:

(i) if the average achievement rate is less than 80%, no contractual termination indemnity fee will be paid;

(ii) if the average achievement rate is equal to or greater than 80% and less than 90%, the contractual termination indemnity will be due at 50% of its amount;

(iii) if the average achievement rate is equal to or greater than 90%, the contractual termination indemnity will be due on a straight-line basis between 90% and 100% of its amount.

This contractual termination indemnity will be equal to the difference between (i) a gross amount capped at 200% of the Annual Reference Remuneration and including all sums of any nature whatsoever, and on any basis whatsoever, to which Sophie ZURQUIYAH may be entitled as a result of the termination, and (ii) all sums to which she may be entitled as a result of the implementation of the non-competition commitment.

The aggregate of the contractual termination indemnity and the non-competition indemnity may under no circumstances exceed 200% of the Corporate Officer's Annual Reference remuneration. Should the combined amount of the two benefits be greater, the contractual indemnity would be reduced to the level of this cap.

It is specified that the Board of Directors must acknowledge, prior to the payment of the contractual termination indemnity, (i) that the performance conditions described above have been met and (ii) that the contractual termination indemnity complies with the recommendations of the AFEP-MEDEF Code in force at the date of the departure of the person concerned.

NOTE 27 RELATED PARTY TRANSACTIONS

CGG Joint Ventures and Associates are mainly related to Land and Marine Data Acquisition.

The following table presents the transactions with our joint ventures and associates.

	December 31					
	2023			2022		
In millions of US$	Joint ventures [(a)]	Associates [(b)]	Total	Joint ventures [(a)]	Associates [(b)]	Total
Sales of geophysical equipment	-	0.7	0.7	-	0.7	0.7
Equipment rentals and services rendered	-	-	-	-	2.1	2.1
Operating Revenue	**-**	**0.7**	**0.7**	**-**	**2.8**	**2.8**
Other revenues (expenses)	-	-	-	-	-	-
Cost of operations	**-**	**-**	**-**	**-**	**-**	**-**
Other financial income (loss)	**-**	**-**	**-**	**-**	**-**	**-**
Trade accounts and notes receivable,including agency arrangements	1.6	-	1.6	1.6	0.8	2.4
Receivables and assets	**1.6**	**-**	**1.6**	**1.6**	0.8	2.4
Trade accounts and notes payable,including agency arrangements	-	-	-	-	-	-
Payables and liabilities	**-**	**-**	**-**	**-**	**-**	**-**

(a) Mainly correspond to related party transactions with a company accounted for under the equity method from our Marine Data Acquisition business. This company is in process of liquidation.

(b) In 2023, our stake in Argas (49%) was sold to Taqa (note 8).

No credit facility or loan was granted to the Company by shareholders during the last two years.

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NOTE 28 SUPPLEMENTARY CASH FLOW INFORMATION

Operating activities

Before changes in working capital, net cash provided by operating activities in 2023 decreased to US$351.5 million compared to US$397.6 million in 2022.

The change in working capital had a positive effect on cash flow from operations of US$54.8 millions in 2023, mainly due to the decrease of inventory in SMO segment following significant deliveries occured in 2023.

Depreciation, amortization and impairment

In 2023, depreciation and amortization included a US$(36.6) million impairment loss related to:

- US$(33.1) million impairment loss on Earth Data surveys (*note 10*);
- US$(3.5) million impairment loss on the capitalized developments costs for Geoscience.

In 2022, depreciation and amortization included a US$(22.1) million impairment loss related to:

- US$(17.3) million impairment loss on the Earth Data library;
- US$(3.2) million impairment loss on the capitalized developments costs for Geoscience; and
- US$(1.6) million impairment losses on a building right-of-use.

Net gain (loss) on disposal of assets

In 2023, capital gains or losses on asset sales amount to US$1.7 million, mainly due to the net gain from the sale of the stake in Interactive Network Technologies Inc for US$ 2.4 million and the net loss from the sale of the stake in Argas for (US$ 1.6) million.

In 2022, the net gain (loss) on disposal of assets amounts to US$ 37.6 million including US$34.0 million net gain from the sale of US land Earth Data library*, a* US$5.2 million net gain from the sale and leaseback of CGG headquarters *(note 2)*; and a US$(1.5) million loss from the sale of GeoSoftware.

Net income (loss) from companies accounted for under the equity method

In 2023, our shares in Argas and in Reservoir Evolution LLP generated respectively a loss of US$(2.6) million (before its total sale at the end of the year) and a gain of US$0.8 million.

Net cash flow from operating activities

Net cash provided by operating activities amounted to US$406.3 million in 2022 compared to US$345.5 million in 2022.

Investing activities

The net cash used in investing activities amounted to US$(232.5) million in 2023 compared to US$(198.9) million in 2022.

Investment in Earth Data

Expenditures on Earth Data surveys were down by US$34.2 million at US$171.1 million in 2023 due to the cut-off of the NVG'23 acquisition in Norway and the cancellation of vessel activity in Brazil in the second semester, slightly offset by addition of Melacca 2D acquisition in Malaysia, from US$205.3 million in 2022.

Net proceeds from disposal of fixed assets

In 2023, the net proceeds from disposals of tangible and intangible assets amount to US$0.4 million, down from 95.0 million in 2022 (which included the net proceeds related to the sale of the US land Earth Data library for US$62.5 million and to the sale and leaseback of CGG headquarters for US$32.2 million) *(note 2)*.

Acquisition of business and assets

In 2023, the Group paid an earnout of US$(1.8) million for the Geocomp activities regarding the SMO segment.

In 2022, the Group acquired activities for US$(36.4) million regarding the SMO segment.

Net Gain (loss) on disposal of business

In 2023, CGG recorded a net proceeds for US$6.2 million activities from the sale of:

- the stake in the arabian company Argas for a sale price of US$2.7 million *(note 2 and note 21)* and,
- the stake in Interactive Network Technologies Inc for a sale price of US$3.5 million) *(note 21)*.

The net proceeds from the sale of businesses amounted to US$4.9 million in 2022.

Variation in other non-current financial assets

The variation in other non-current financial assets mainly related to short-term investment securities and long-term deposits pledged to fulfill certain collateral requirements.

Financing activities

In 2023, net cash flow used by financing activities was mainly related to:

- an additional asset financing of US$23.9 million in 2023 for the development of HPC and Cloud Solutions activities and the related repayments for US$1.8 million *(note 13)*;
- lease repayments of US$(57.0) million *(note 13)*;
- financial interests paid related to long-term debt for (90.7) million *(note 13)*;
- exercise of warrants for US$0.1 million;
- dividends paid to minority shareholders for US$(0.9) million.

In 2022, net cash flow used by financing activities was mainly related to:

- a new asset financing arrangement to further develop HPC and Cloud Solutions activities for US$10.6 million *(note 13)*;
- lease repayments of US$(48.4) million;
- financial interests paid related to long-term debt for US$(92.4) million;
- the repayment of the loan granted to Xcalibur Group as part of the sale of the Multi-Physics business for US$1.6 million;
- exercise of warrants for US$0.4 million;
- dividends paid to minority shareholders for US$(0.9) million.

	December 31	
In millions of US$	**2023**	**2022**
Property lease	(31.3)	(28.2)
Property formerly classified as financial lease	(2.2)	(3.2)
Other property	(29.1)	(25.0)
Machinery & equipment lease	(25.7)	(20.2)
Total cash flow for leases	**(57.0)**	**(48.4)**

Cash and cash equivalents

	December 31	
In millions of US$	**2023**	**2022**
Cash and bank deposits	203.2	105.1
Cash equivalents and short-term deposits	123.8	192.9
TOTAL CASH AND CASH EQUIVALENTS	**327.0**	**298.0**

Cash and cash equivalents included trapped cash amounting to US$44.2 million as at December 31, 2023, compared to US$47.5 million as at December 31, 2022. Trapped cash means any cash and cash equivalent held by a subsidiary that operates in a country where exchange controls or other legal restrictions prevent these cash balances from being available for use by the Group or one of its subsidiaries. In 2023, cash equivalents and short-term deposits exclude US$32.5 million of cash pledged to fulfill certain collateral requirements. The cash pledged for more than one year is recorded for US$22.0 million in other financial assets *(note 7)* and the cash pledged for less than one year is recorded for US10.5 million in restricted cash *(note 4)*.

NOTE 29 EARNINGS PER SHARE

	December 31	
In millions of US$	**2023**	**2022**
Net income attributable to shareholders (a)	12.9	43.1
Effect of dilution		
Ordinary shares outstanding at the beginning of the year (b)	712,357,321	711,663,925
Weighted average number of ordinary shares outstanding during the period resulting from the exercise of stock options and delivery of performance shares (c)	796,196	449,092
Weighted average number of treasury shares (d)	(24,996)	(24,996)
Weighted average number of ordinary shares outstanding ((e) = (b) + (c) - (d))	**713,128,521**	**712,088,021**
Total dilutive potential shares from stock options		-
Total dilutive of potential shares from performance share plans	4,060,809	2,520,898
Total dilutive of potential shares from warrants		-
Dilutive weighted average number of shares outstanding adjusted when dilutive (f)	**717,189,330**	**714,608,919**
Earnings per share		
– **Basic (a)/(e)**	**0.02**	**0.06**
– **Diluted (a)/(f)**	**0.02**	**0.06**
Net income from continuing operations attributable to owners of the Group	0.6	47.6
– Earnings per share, basic	0.00	0.07
– Earnings per share, diluted	0.00	0.07
Net income from discontinued operations attributable to owners of the Group	12.3	(4.5)
– Earnings per share, basic	0.02	(0.01)
– Earnings per share, diluted	0.02	(0.01)

NOTE 30 SUBSEQUENT EVENTS

None.

NOTE 31 LIST OF MAIN CONSOLIDATED SUBSIDIARIES AS AT DECEMBER 31, 2023

Subsidiaries are fully consolidated from the date of their acquisition, being the date on which the Group obtains the control.

Dormant subsidiaries of the Group have not been included in the list below.

Percentage of interest generally corresponds to the percentage of control in the Company.

Siren Number [(a)]	Company Names	Country of incorporation	% ownership interest
403 256 944	CGG Services SAS	France	100.0
413 926 320	Geomar SAS	France	100.0
	CGG Holding BV	Netherlands	100.0
	CGG Services (Norway) AS	Norway	100.0
	CGG Services (UK) Limited	United Kingdom	100.0
	CGG do Brasil Participaçoes Ltda	Brazil	100.0
	Veritas do Brasil Ltda	Brazil	100.0
	CGG Mexico, SA de CV	Mexico	100.0
	CGG Holding (US) Inc.	Delaware, United States of America	100.0
	CGG Services (US) Inc.	Delaware, United States of America	100.0
	CGG Land (US) Inc.	Delaware, United States of America	100.0
	CGG Services (Canada) Inc.	Canada	100.0
	CGG Services (Australia) Pty Ltd	Australia	100.0
	CGGVeritas Services (B) Sdn Bhd	Brunei	100.0
	PT CGG Services Indonesia	Indonesia	100.0
	CGG Services India Private Ltd	India	100.0
	CGG Technology Services (Beijing) Co. Ltd	China	100.0
	CGG Services (Singapore) Pte Ltd	Singapore	100.0
	CGG Services (Malaysia) Sdn Bhd	Malaysia	100.0
	CGG Vostok	Russia	100.0
866 800 154	Sercel Holding SAS	France	100.0
378 040 497	Sercel SAS	France	100.0
	Concept Systems Limited	United Kingdom	100.0
	Sercel Inc.	Oklahoma, United States of America	100.0
	Sercel GeoComp	Delaware, United States of America	100.0
	Hebei Sercel-Junfeng Geophysical Prospecting Equipment Co. Ltd [(b)]	China	51.0
	Sercel Singapore Pte Ltd	Singapore	100.0
	De Regt Marine Cables BV	Netherlands	100.0

(a) Siren number is an individual identification number for company registration purposes under French law.
(b) CGG Group controls these entities.

Non-controlling interests

The Group does not fully consolidate any significant entity in which it holds less than a majority of voting rights.

Subsidiaries with non-controlling interests do not contribute materially to the activities of the Group, the consolidated income, cash flows, liabilities nor assets as at December 31, 2023.

Hebei Sercel-Junfeng Geophysical Prospecting Equipment Co. Ltd, a subsidiary of Sercel SAS based in China, is the main entity owned by CGG with non-controlling interests.

NOTE 32 AUDIT FEES

The table below shows the fees from our external auditors and their affiliated companies paid by the Group:

	December 31			
	2023		2022	
In thousands of US$	EY	Mazars	EY	Mazars
Audit fees	1,643	940	1,600	756
Audit-related fees [(a)]	69	-	18	16
Tax fees	29	-	35	-
Other fees [(b)]	17	-	35	-
TOTAL	**1,758**	**940**	**1,688**	**772**

(a) In 2023, Audit-related fees are mainly linked to the verification of the non-financial performance statement. In 2022, these fees are mainly related to refinancing in 2021, the verification of the non-financial performance statement and support for CGG's European green taxonomy.

(b) In 2022, other fees are related to a training about accounting standards.

6.1.6 Statutory auditors' report on the consolidated financial statements

Year ended December 31, 2023

This is a translation into English of the statutory auditors' report on the consolidated financial statements of the Company issued in French and it is provided solely for the convenience of English-speaking users.

This statutory auditors' report includes information required by European regulation and French law, such as information about the appointment of the statutory auditors or verification of the information concerning the Group presented in the management report and other documents provided to shareholders. This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

To the Annual General Meeting of CGG,

Opinion

In compliance with the engagement entrusted to us by your Annual General Meeting, we have audited the accompanying consolidated financial statements of CGG for the year ended December 31, 2023.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at December 31, 2023 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the "Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements" section of our report.

Independence

We conducted our audit engagement in compliance with independence requirement rules required by the French Commercial Code (Code de commerce) and the French Code of Ethics (Code de déontologie) for statutory auditors for the period from January 1, 2023 to the date of our report, and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No. 537/2014.

Justification of Assessments - Key Audit Matters

In accordance with the requirements of Articles L. 821-53 and R. 821-180 of the French Commercial Code (Code de commerce) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Valuation of goodwill

Key audit matter	Our response
As presented in note 11 to the consolidated financial statements as of December 31, 2023, the goodwill amounts to a net value of US$1,095.5 million breaking down as follows • Geoscience : US$722.8 million ; • Earth Data : US$182.2 million ; • Sensing & Monitoring : US$190.5 million. Management ensures, at least once a year at the statement of financial position date, that the carrying amount of goodwill is not higher than its recoverable amount and presents no risk of impairment. The principles of the impairment test performed, and the applicable assumptions are described in note 11 to the consolidated financial statements..	Our procedures thus mainly consisted in: • management to assess the recoverable amount of goodwill and examining the compliance with the applicable accounting standards; • assessing the consistency of the estimated future cash flows with the main underlying operating assumptions, from the 2024 budget and the outlook for the explicit period, approved by management; • retained for the purpose of estimating normative cash flows, especially with regard to the outlook for the oil and gas market on the one hand, and the Digital Science, Energy Transition and Monitoring and Observation Solutions markets on the other hand; • performing a retrospective analysis of the cash flow estimates; • assessing the existence of any external information which could contradict management's assumptions.

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Key audit matter	Our response
The determination of the recoverable amount of goodwill is very largely based on management judgment, in particular with regard to: • the future cash flows expected from the cash-generating units assessed, including normative cash flows that are used beyond the explicit period. These normative cash flows include flows from new businesses addressing the fast-growing markets of Digital Science, Energy Transition and Monitoring and Observation Solutions; • the discount rates applied to the future cash flows; • the long-term growth rate retained for the cash flow projection. We considered the valuation of goodwill as a key audit matter, due to its importance in the accounts and the necessary management estimates and judgments, particularly in the context of energy transition.	We have incorporated valuation specialists in our team for the purpose, in particular, of assessing the discount rates and long-term growth rate retained by management and assess the appropriateness of the discount rates to the level of risk embedded in the cash flows. They independently determined acceptable rate ranges and examined the rates used by management in relation to those ranges. We have also examined the appropriateness of the information relating to the valuation of goodwill presented in the consolidated financial statements. In particular, we have assessed the consistency of the sensitivities presented in the consolidated financial statements especially with regard to the choice of variables and the assumptions of variations. We also verified the arithmetical accuracy of these expectations.

Valuation of Earth Data surveys

Key audit matter	Our response
As presented in note 10 to the consolidated financial statements as of December 31, 2023, the carrying amount of the Earth Data surveys totals US$457.9 million. As presented in note 1.7 to the consolidated financial statements, the Group's Earth Data surveys regroup seismic surveys for which non-exclusive licenses are granted to customers. All the costs of acquisition, processing and finalization of the surveys are recognized as intangible assets. The Earth Data surveys are valued at the aggregate of those costs less accumulated amortization, or at their fair values if the latter is the lower Management ensures, at least once a year and more frequently in the event of any indication of impairment, that the carrying amount of Earth Data surveys does not exceed their recoverable amounts. The assessment of the recoverable amount of Earth Data surveys is very largely based on management judgment, in particular with regard to the forecasting of future sales. In that respect, and as indicated in note 10, US$33.1 million of impairment losses were recognized in 2023. Given the elements described above, we considered measurement of the Earth Data surveys as a key audit matter.	We have obtained an understanding of the methodology used by the Group's management to assess the recoverable amount of Earth Data surveys and have examined its compliance with the applicable accounting standards. We have assessed the consistency of future sales forecasts: • in relation to the forecasts made by management as part of the impairment test for the previous year, by comparing actual sales with previous forecasts; • and with surveys' attractiveness for potential customers We assessed the existence of external information that could contradict management's assumptions. When management judged that impairment should be recognized, we inquired management about the reasons for the impairment and assessed its consistency with our understanding of the market. We have also examined the appropriateness of the information relating to the valuation of Earth Data surveys presented in the consolidated financial statements.

Recoverability of deferred tax assets

Key audit matter	Our response
Deferred tax assets are recorded in the consolidated financial statements at December 31, 2023 at a net value of US$29.9 million. As presented in note 1.4.6 to the consolidated financial statements, deferred tax assets are recognized only when their recovery is considered as probable on the basis of future taxable profits, or when losses carried forward can be offset against taxable temporary differences. The Group's ability to recover deferred tax assets is assessed by management at each annual closing. We considered the recoverability of deferred tax assets as a key audit issue due to the management estimates and judgments made in assessing their recoverability.	We have analyzed the assumptions made by management with regard to the recoverability of deferred tax assets and their compliance with the applicable accounting standards. We have assessed, together with tax experts integrated to the audit team, the recoverability of deferred tax assets in relation to: • Taxable profits resulting from the reversal of taxable temporary differences that exist in the same taxable authority, for the same taxable entity, and against which existing deductible temporary differences, tax deficits and carry-forward tax credits may be deducted, before they expire if applicable; • the key data and assumptions on which the taxable profit forecasts underlying the recoverability of deferred tax assets are based. In particular, we examined the consistency of these data and assumptions with the Group's forecasts approved by management.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations of the Group's information relating to the Group given in the management report of the Board of Directors

We have no matters to report as to their fair presentation and their consistency with the consolidated financial statements.

We attest that the consolidated non-financial statement required by Article L. 225-102-1 of the French Commercial Code (Code de commerce) is included in the Group's information given in the management report, it being specified that, in accordance with article L. 823-10 of this Code, we have verified neither the fair presentation nor the consistency with the consolidated financial statements of the information contained therein. This information should be reported on by an independent third party.

Report on Other Legal and Regulatory Requirements

Format of presentation of the financial statements intended to be included in the annual financial report

We have also verified, in accordance with the professional standard applicable in France relating to the procedures performed by the statutory auditor relating to the annual and consolidated financial statements presented in the European single electronic format, that the presentation of the consolidated financial statements intended to be included in the annual financial report mentioned in Article L. 451- 1-2, I of the French Monetary and Financial Code (Code monétaire et financier), prepared under the responsibility of the Chief Executive Officer, complies with the single electronic format defined in Commission Delegated Regulation (EU) No. 2019/815 of December 17, 2018. As it relates to consolidated financial statements, our work includes verifying that the tagging thereof complies with the format defined in the above mentioned regulation.

Based on the work we have performed, we conclude that the preparation of the consolidated financial statements intended to be included in the annual financial report complies, in all material respects, with the European single electronic format.

Due to the technical limitations inherent to the block-tagging of the consolidated financial statements according to the European single electronic format, the content of certain tags of the notes may not be rendered identically to the accompanying consolidated financial statements.

Furthermore, we have no responsibility to verify that the consolidated financial statements that will ultimately be included by your company in the annual financial report filed with the AMF (Autorité des marchés financiers) are in agreement with those on which we have performed our work.

Appointment of the Statutory Auditors

We were appointed as statutory auditors of CGG by the Annual General Meeting held on May 15, 2003 for MAZARS and on June 29, 1977 for ERNST & YOUNG et Autres.

As at December 31, 2023, MAZARS was in the twenty-first year of total uninterrupted engagement and ERNST & YOUNG et Autres in the forty-seventh year (out of which forty-three years since securities of the Company were admitted to trading on a regulated market).

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union and for such internal control as management determines necessary to enable the preparation of consolidated financial statements free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, the matters related to going concern and using the going concern basis for accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risk management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

Il incombe au comité d'audit de suivre le processus d'élaboration de l'information financière et de suivre l'efficacité des systèmes de contrôle interne et de gestion des risques, ainsi que le cas échéant de l'audit interne, en ce qui concerne les procédures relatives à l'élaboration et au traitement de l'information comptable et financière.

The consolidated financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Objectives and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatements. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users made on the basis of these consolidated financial statements.

As specified in Article L. 821-55 of the French Commercial Code (Code de commerce), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of your Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements;
- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;
- obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The statutory auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

Report to the Audit Committee

We submit a report to the Audit Committee which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee in cludes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of Regulation (EU) No. 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 821-27 to L. 821-34 of the French Commercial Code (Code de commerce) and in the French Code of Ethics (Code de déontologie) for statutory auditors. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris-La Défense, March 12, 2024

The Statutory Auditors

MAZARS		ERNST & YOUNG et Autres
Daniel Escudeiro	Alexandre De Belleville	Claire Cesari-Walch