

CGG  
Form 20-F  
April 10, 2014  
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**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 20-F**

.. **REGISTRATION STATEMENT PURSUANT TO SECTION 12(B) OR (G) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**OR**

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the Fiscal Year Ended December 31, 2013**

**OR**

.. **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**  
**OR**

.. **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934**

**Date of Event Requiring this Shell Company Report**

**Commission File Number 001-14622**

# CGG

*(Exact name of registrant as specified in its charter)*

**CGG**

*(Translation of registrant's name into English)*

**Republic of France**

*(Jurisdiction of incorporation or organization)*

**Tour Maine Montparnasse**

**33, avenue du Maine**

**75015 Paris France**

*(Address of principal executive offices)*

**Stephane-Paul Frydman**

**Chief Financial Officer**

**CGG**

**Tour Maine Montparnasse**

**33, avenue du Maine**

**75015 Paris France**

**tel: +33 (0) 16467 4500**

**fax: +33 (0) 16447 3429**

*(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)*

**Securities registered or to be registered pursuant to Section 12(b) of the Act.**

<b>Title of each class</b>	<b>Name of each exchange on which registered</b>
<b>American Depositary Shares representing</b>	<b>New York Stock Exchange</b>
<b>Ordinary Shares, nominal value 0.40 per share</b>	

**Securities registered or to be registered pursuant to Section 12(g) of the Act.**

**None**

**(Title of class)**

**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.**

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**7<sup>3</sup>/<sub>4</sub>% Senior Notes due 2017**

**9<sup>1</sup>/<sub>2</sub>% Senior Notes due 2016**

**6<sup>1</sup>/<sub>2</sub>% Senior Notes due 2021**

**(Title of class)**

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

**176,890,866 Ordinary Shares, nominal value 0.40 per share**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes  No

Note: checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those sections.

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).\*\* Yes  No

\*\* This requirement is not currently applicable to the registrant.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing: US GAAP

International Financial Reporting Standards as issued by the International Accounting Standards Board  Other

If other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow: Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

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**PRESENTATION OF INFORMATION**

Unless the context otherwise requires, CGG refers to CGG SA, and we, us, our and Group refers to CGG SA and its subsidiaries.

References to Senior Notes are to our 9% Senior Notes due 2016, 7<sup>3</sup>/<sub>4</sub>% Senior Notes due 2017 and 6<sup>1</sup>/<sub>2</sub>% Senior Notes due 2021. References to the US revolving facility are to the US\$165 million revolving credit facility under our senior secured credit agreement dated July 15, 2013, as amended on July 31, 2013. References to the French revolving facility are to the US\$325 million revolving credit facility under our senior secured French-law revolving facility agreement dated July 31, 2013. References to the term loan and revolving facilities are to the US\$200 million term loan and revolving facilities agreement dated July 1, 2013.

References to the Acquisition or the Geoscience Acquisition are to our acquisition of most of the Geoscience Division of Fugro N.V. ( Fugro ), including Fugro-Geoteam, Fugro Seismic Imaging, Fugro Geophysical and Geological Services and De Regt Marine Cables, as well as all related entities and assets, but excluding Fugro's multi-client library and OBN activity. References to the Seabed JV are to the joint venture between us and Fugro specializing in shallow water and ocean bottom systems.

In this annual report, references to United States or US are to the United States of America, references to US dollars, \$ or US\$ are to United States dollars, references to France are to the Republic of France, references to Norway are to the Kingdom of Norway, references to NOK are to Norwegian kroner and references to euro or are to the single currency introduced at the start of the third stage of European Economic and Monetary Union pursuant to the Treaty establishing the European Union.

As our shares are listed on the New York Stock Exchange (in the form of American Depositary Shares), and the offer and sale of certain of our bonds was registered with the SEC, we are required to file an annual report on Form 20-F with the SEC. Our annual report includes our annual financial statements prepared in accordance with International Financial Reporting Standards ( IFRS ) and its interpretations as issued by the International Accounting Standards Board (IASB). These consolidated financial statements were also prepared in accordance with IFRS as adopted by the European Union at December 31, 2013.

Unless otherwise indicated, statements in this annual report relating to market share, ranking and data are derived from management estimates based, in part, on independent industry publications, reports by market research firms or other published independent sources. Any discrepancies in any table between totals and the sums of the amounts listed in such table are due to rounding.

Effective January 1, 2012, we changed the presentation currency of our consolidated financial statements from the euro to the US dollar to better reflect the profile of our revenues, costs and cash flows, which are primarily generated in US dollars, and hence, to better present the financial performance of the Group. As a change in presentation currency is a change of accounting policy, all comparative financial information has been restated into US dollars in this annual report.

**FORWARD-LOOKING STATEMENTS**

This annual report includes forward-looking statements within the meaning of the federal securities laws, which involve risks and uncertainties, including, without limitation, certain statements made in the sections entitled Information on the Company and Operating and Financial Review and Prospects . You can identify forward-looking statements because they contain words such as believes , expects , may , should , seeks , approximately , intends , plans , estimates , or anticipates or similar expressions that relate to our strategy, plans or intentions. These forward-looking statements are subject to risks and uncertainties that may change at any time, and, therefore, our actual results may differ materially from those that we expected. We have based these forward-looking statements on our current views and assumptions about future events. While we

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believe that our assumptions are reasonable, we caution that it is very difficult to predict the impact of known factors, and, of course, it is impossible for us to anticipate all factors that could affect our actual results. All forward-looking statements are based upon information available to us on the date of this annual report.

Important factors that could cause actual results to differ materially from our expectations ( *cautionary statements* ) are disclosed under *Item 3: Key Information - Risk Factors* and elsewhere in this annual report, including, without limitation, in conjunction with the forward-looking statements included in this annual report. Some of the factors that we believe could affect our actual results include:

the impact of the current economic and credit environment, including on our customers and suppliers;

the social, political and economic risks of our global operations;

our ability to integrate successfully the businesses or assets we acquire;

the risks associated with activities operated through joint ventures in which we hold a minority interest;

any write-downs of goodwill on our balance sheet;

our ability to sell our seismic data library;

exposure to foreign exchange rate risk;

our ability to finance our operations on acceptable terms;

the impact of fluctuations in fuel costs on our marine acquisition business;

the weight of intra-group production on our results of operations;

the timely development and acceptance of our new products and services;

difficulties and costs in protecting intellectual property rights and exposure to infringement claims by others;

ongoing operational risks and our ability to have adequate insurance against such risks;

the level of capital expenditures by the oil and gas industry and changes in demand for seismic products and services;

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our clients' ability to unilaterally delay or terminate certain contracts in our backlog;

the effects of competition;

difficulties in adapting our fleet to changes in the seismic market;

the seasonal nature of our revenues;

the costs of compliance with governmental regulation, including environmental, health and safety laws;

our substantial indebtedness and the restrictive covenants in our debt agreements;

our ability to access the debt and equity markets during the periods covered by the forward-looking statements, which will depend on general market conditions and on our credit ratings for our debt obligations;

exposure to interest rate risk; and

our success at managing the foregoing risks.

We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. We caution you that the foregoing list of important factors may not contain all of the material factors that are important to you. In addition, in light of these risks, uncertainties and assumptions, the forward-looking events discussed in this annual report might not occur. When considering forward-looking statements, you should keep in mind the risk factors and other cautionary statements included in this annual report, including those described in Item 3: Key Information - Risk Factors of this annual report.

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**PART I**

**Item 1: IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

Not applicable.

**Item 2: OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**Item 3: KEY INFORMATION**

**Selected Financial Data**

The selected financial data included below should be read in conjunction with, and are qualified in their entirety by reference to, our consolidated financial statements and Item 5: Operating and Financial Review and Prospects included elsewhere in this annual report. The selected financial data for each of the years in the five-year period ended December 31, 2013 have been derived from our audited consolidated financial statements prepared in accordance with IFRS.

Effective January 1, 2013, we applied IAS19 revised Employee benefits. As the application of this new standard is a change of accounting policy, all comparative financial information has been restated to present comparative amounts for each period presented as if the new accounting policy had always been applied.



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	At December 31,				
	2013	2012 (restated)	2011 (restated)	2010 (restated)	2009 (restated)
	(In millions of US dollars except per share data and ratios)				
<b>Statement of operations data:</b>					
Operating revenues	3,765.8	3,410.5	3,180.9	2,904.3	3,109.1
Other revenues from ordinary activities	2.1	3.6	3.3	4.3	10.4
Cost of operations	(2,977.2)	(2,685.4)	(2,649.4)	(2,321.8)	(2,382.0)
Gross profit	790.7	728.7	534.8	586.8	737.5
Research and development expenses, net	(105.9)	(92.8)	(77.0)	(75.7)	(86.5)
Marketing and selling expenses	(118.6)	(96.0)	(83.1)	(81.9)	(84.6)
General and administrative expenses	(215.9)	(182.6)	(201.8)	(222.2)	(254.2)
Other revenues (expenses)	(105.2)	(26.7)	34.3	(118.0)	(236.5)
Impairment of goodwill	(640.0)				(300.0)
Operating income	(394.9)	330.6	207.2	89.0	(224.3)
Cost of financial debt, net	(191.7)	(156.7)	(174.5)	(140.1)	(146.4)
Other financial income (loss)	(22.3)	(19.7)	0.8	11.2	(15.6)
Income taxes	(82.9)	(99.2)	(63.1)	(18.5)	13.6
Equity in income of affiliates	0.6	37.4	16.4	(1.0)	11.6
Net income (loss)	(691.2)	92.4	(13.2)	(59.4)	(361.1)
Attributable to non-controlling interests	7.6	17.2	13.9	14.1	7.6
Attributable to owners of CGG SA	(698.8)	75.2	(27.1)	(73.5)	(368.7)
Net income (loss) per share:					
Basic <sup>(1)</sup>	(3.95)	0.46	(0.17)	(0.46)	(2.34)
Diluted <sup>(2)</sup>	(3.95)	0.46	(0.17)	(0.46)	(2.34)
<b>Balance sheet data:</b>					
Cash and cash equivalents	530.0	1,520.2	531.4	448.8	691.9
Working capital <sup>(3)</sup>	532.0	783.5	488.7	677.8	566.8
Property, plant & equipment, net	1,557.8	1,159.5	1,183.2	1,045.6	976.2
Multi-client surveys	818.0	604.2	527.3	602.9	675.7
Goodwill	2,483.2	2,415.5	2,688.2	2,688.5	2,691.2
Total assets	8,262.8	8,332.8	7,191.5	7,116.2	7,090.1
Gross financial debt <sup>(4)</sup>	2,747.6	2,305.2	1,942.1	1,985.1	2,015.4
Equity attributable to owners of CGG SA	3,799.9	4,483.2	3,794.6	3,745.8	3,818.9
<b>Other financial historical data and other ratios:</b>					
EBIT <sup>(5)</sup>	(394.3)	368.0	223.6	88.0	(212.7)
EBITDAS <sup>(6)</sup>	1,139.7	1,006.2	826.1	760.3	882.8
Capital expenditures (property, plant & equipment) <sup>(7)</sup>	347.2	368.8	365.6	279.6	236.8
Capital expenditures for multi-client surveys, net cash	479.4	363.8	203.2	259.6	281.0
Net financial debt <sup>(8)</sup>	2,217.7	785.0	1,410.6	1,536.3	1,323.5
Gross financial debt <sup>(4)</sup> /EBITDAS <sup>(6)</sup>	2.4x	2.3 x	2.4 x	2.6 x	2.3x
Net financial debt <sup>(8)</sup> /EBITDAS <sup>(6)</sup>	1.9x	0.8x	1.7 x	2.0 x	1.5x
EBITDAS <sup>(6)</sup> /Cost of financial debt, net	5.9x	6.4 x	4.7 x	5.4 x	6.0x

(1) Basic per share amounts have been calculated on the basis of 176,734,989, 162,077,608, 158,571,323, 158,122,674, and 157,623,205 weighted average outstanding shares in 2013, 2012, 2011, 2010 and 2009 respectively.

(2) Diluted per share amounts have been calculated on the basis of 176,734,989, 163,409,442, 158,571,323, 158,122,674 and 157,623,205 weighted average outstanding shares in 2013, 2012, 2011, 2010 and 2009 respectively.

(3) Working capital is defined as net trade accounts and notes receivable, net inventories and work-in-progress, tax assets, other current assets and assets held for sale less trade accounts and notes payable, accrued payroll costs, income tax payable, advance billings to customers, deferred income, current provisions and other current liabilities.

(4) Gross financial debt is defined as financial debt, including current maturities and bank overdrafts.

(5) Earnings before interest and tax (EBIT) is defined as operating income plus our share of income in companies accounted for under the equity method. EBIT is used by management as a performance indicator because it captures the contribution to our results of the significant businesses that we manage through our joint ventures. However, other companies may present EBIT and related measures differently than we do. EBIT is not a measure of financial performance under IFRS and should not be considered as an alternative to cash flow from operating activities or as a measure of liquidity or an alternative to net income as indicators of our operating performance or any other measures of performance derived in accordance with IFRS. See Item 5: Operating and Financial Review and Prospects Liquidity and Capital Resources EBIT and EBITDAS for a reconciliation of EBIT to operating income.

(6) EBITDAS (or EBITDA) is defined as earnings before interest, tax, depreciation, amortization net of amortization costs capitalized to multi-client surveys and share-based compensation cost. 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 one measure used by certain investors to determine our operating cash flow and historical ability to meet debt service and capital expenditure requirements. However, other companies may present EBITDAS and similar measures differently than we do. EBITDAS is not a measure of financial performance under IFRS and should not be considered as an alternative to cash flow from

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*operating activities or as a measure of liquidity or an alternative to net income as indicators of our operating performance or any other measures of performance derived in accordance with IFRS. See Item 5: Operating and Financial Review and Prospects – Liquidity and Capital Resources – EBIT and EBITDAS for a reconciliation of EBITDAS to net cash provided by operating activities.*

- (7) *Capital expenditures is defined as purchases of property, plant and equipment, development costs capitalized plus variation of suppliers of fixed assets and excludes finance leases.*
- (8) *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 net financial debt differently than we do. 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. See Item 5: Operating and Financial Review and Prospects – Liquidity and Capital Resources – Financial Debt for a reconciliation of net financial debt to certain financing items on our balance sheet.*

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**Capitalization and Indebtedness**

Not applicable

**Reasons for the Offer and Use of Proceeds**

Not applicable

**Risk Factors**

**RISKS RELATED TO OUR BUSINESS**

*Current economic uncertainty and the volatility of oil and natural gas prices could have a significant adverse effect on us.*

Global market and economic conditions are uncertain and volatile. In the past, economic contractions and uncertainty have weakened demand and lowered prices for oil and natural gas, resulting in a reduction in the levels of exploration for hydrocarbons and demand for our products and services. It is difficult to predict how long the current economic conditions will persist, whether they will deteriorate further, and which of our products and services will be adversely affected. We may have impairment losses as events or changes in circumstances occur that reduce the fair value of an asset below its book value. These conditions could have a material adverse effect on our business, results of operations, financial condition and cash flows.

Uncertainty about the general economic situation has had and is likely to continue to have a significant adverse impact on the commercial performance and financial condition of many companies, which may affect some of our customers and suppliers. The current economic climate may lead customers to cancel or delay orders or leave suppliers unable to provide goods and services as agreed. Our government clients may face budget deficits that prohibit them from funding proposed and existing projects or that cause them to exercise their right to terminate our contracts with little or no prior notice. If our suppliers, vendors, subcontractors or other counterparties are unable to perform their obligations to us or our customers, we may be required to provide additional services or make alternate arrangements on less favorable terms with other parties to ensure adequate performance and delivery of service to our customers. These circumstances could also lead to disputes and litigation with our partners or customers, which could have a material adverse impact on our reputation, business, financial condition and results of operations.

Turmoil in the credit markets, such as has been experienced in prior periods, could also adversely affect us and our customers. Limited access to external funding has in the past caused some companies to reduce their capital spending to levels supported by their internal cash flow. Some companies have found their access to liquidity constrained or subject to more onerous terms. In this context, our customers may not be able to borrow money on reasonable terms or at all, which could have a negative impact on their demand for our products, and impair their ability to pay us for our products and services on a timely basis, or at all.

In addition, the potential impact on the liquidity of major financial institutions may limit our ability to fund our business strategy through borrowings under either existing or new debt facilities in the public or private markets and on terms we believe to be reasonable. Persistent volatility in the financial markets could have a material adverse effect on our ability to refinance all or a portion of our indebtedness and to otherwise fund our operational requirements. We cannot be certain that additional funds will be available if needed to make future investments in certain projects, take advantage of acquisitions or other opportunities or respond to competitive pressures. If additional funds are not available, or are not available on terms satisfactory to us, there could be a material adverse impact on our business and financial performance.

Furthermore, our cash balances are maintained in accounts held at major banks and financial institutions located primarily in Europe, North America and China. Deposits are in amounts that exceed available insurance.

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Although none of the financial institutions in which we hold our cash and investments has gone into bankruptcy, been forced into receivership, or has been seized by its governments, there is a risk that this may occur in the future. If this were to occur, we would be at risk of not being able to access our cash which may result in a temporary liquidity crisis that could impede our ability to fund operations.

### ***We are subject to risks related to our international operations.***

With operations worldwide, including in emerging markets, our business and results of operations are subject to various risks inherent in international operations. These risks include:

instability of foreign economies and governments, which can cause investment in capital projects by our potential clients to be withdrawn or delayed, reducing or eliminating the viability of some markets for our services;

risks of war, terrorism, riots and uprisings, which can make it unsafe to continue operations, adversely affect budgets and schedules and expose us to losses;

risk of piracy, which may result in delays carrying out customer contracts in affected areas or their termination;

seizure, expropriation, nationalization or detention of assets, or renegotiation or nullification of existing contracts;

foreign exchange restrictions, import/export quotas, sanctions and other laws and policies affecting taxation, trade and investment; and

availability of suitable personnel and equipment, which can be affected by government policy, or changes in policy, that limit the importation of qualified crew members or specialized equipment in areas where local resources are insufficient.

We are exposed to these risks in all of our international operations to some degree, particularly in emerging markets where the political and legal environment is less stable. We are subject to the risk of adverse developments with respect to certain international operations and any insurance coverage we have may not be adequate to compensate us for any losses arising from such risks.

Revenue generating activities in certain foreign countries may require prior United States government approval in the form of an export license and may otherwise be subject to tariffs and import/export restrictions. These laws can change over time and may result in limitations on our ability to compete globally. In addition, non-US persons employed by our separately incorporated non-US entities may conduct business in some foreign jurisdictions that are subject to US trade embargoes and sanctions by the US Office of Foreign Assets Control, including countries that have been designated by the US government as state sponsors of terrorism. We have typically generated revenue in some of these countries through the performance of marine surveys, the provision of data processing and reservoir consulting services, the sale of software licenses and software maintenance and the sale of Sercel equipment. We have current and ongoing relationships with customers in these countries. We have procedures in place to conduct these operations in compliance with applicable US laws. However, failure to comply with US laws on equipment and services exports could result in material fines and penalties, damage our reputation, and negatively affect the market price of our securities. We provided information in 2011 and 2012 to the US Department of Commerce's Bureau of Industry and Security (BIS) concerning shipments to our vessels operating in or near Cuba that may not have complied fully with our internal policies and possibly violated applicable export controls and sanctions laws. See Item 4: Information on the Company Legal Proceedings Requests for information made by the US Department of Commerce's Bureau of Industry and Security. In addition, our presence in these countries could reduce demand for our securities among certain investors.

Certain of our clients and certain tax, social security or customs authorities may request that we or certain of our subsidiaries or affiliates post performance bonds or guarantees issued by financial institutions, including in the form of stand-by letters of credit, in order to guarantee our legal or contractual obligations. We cannot assure



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you that we will be able to provide these bonds or guarantees in the amounts or durations required or for the benefit of the necessary parties. Our failure to comply with these requests could reduce our capacity to conduct business or perform our contracts. In addition, if we do provide these bonds or guarantees, our clients or the relevant authorities may call them under circumstances that we believe to be improper, and we may not be able to challenge such actions effectively in local courts.

We and certain of our subsidiaries and affiliated entities also conduct business in countries where there is government corruption. We are committed to doing business in accordance with all applicable laws and our codes of ethics, but there is a risk that we, our subsidiaries or affiliates or their respective officers, directors, employees or agents may act in violation of our codes and applicable laws, including the Foreign Corrupt Practices Act of 1977. Any such violations could result in substantial civil and criminal penalties and might materially adversely affect our business and results of operations or financial condition.

***We are subject to certain risks related to acquisitions.***

In the past we have grown by acquisitions, some of which, such as the merger with Veritas in 2007, the acquisition of Wavefield in 2008 or the acquisition of Fugro Geoscience Division in 2013, were quite significant. Such transactions, whether completed, pending or likely to be completed in the future, present various financial and management-related risks that can be material, such as integration of the acquired businesses in a cost-effective manner; implementation of a combined business strategy; diversion of management's attention; outstanding or unforeseen legal, regulatory, contractual, labor or other issues arising from the acquisitions; additional capital expenditure requirements; retention of customers; combination of different company and management cultures; operations in new geographic markets; the need for more extensive management coordination; and retention, hiring and training of key personnel. Should any of these risks associated with acquisitions materialize, they could have a material adverse effect on our business, financial condition and results of operations.

***We have transferred our Seabed business to a joint venture company that is controlled by a third party.***

In connection with the Geoscience Acquisition, we have transferred our shallow water, ocean bottom cable and ocean bottom node activities to a company in which Fugro holds a 60% majority interest and we hold a minority interest. As a result, we no longer have full control over the management and operations of these activities. While we have certain customary rights with respect to certain key decisions relating to the joint venture's activities, this is not the same as the right to determine the strategy and policies of this business. In addition, our shares in the joint venture company are subject to restrictions on transfer, as well as to Fugro's right to require us to sell our shares in certain circumstances.

***We may need to write down goodwill from our balance sheet.***

We have been involved in a number of business combinations in the past, leading to the recognition of large amounts of goodwill on our balance sheet. Goodwill on our balance sheet totaled US\$2,483 million as of December 31, 2013. Goodwill is allocated to cash generating units (CGUs) as described in note 11 to our consolidated financial statements for the year ended December 31, 2013. The recoverable amount of a CGU is estimated at each balance sheet date and is generally determined on the basis of a group-wide estimate of future cash flows expected from the CGU in question. The estimate takes into account, in particular, the removal from service of certain assets used in our business (such as decommissioning or coldstacking vessels), or change in purpose of a given asset (such as the use of a seismic vessel as a source-vessel), or any significant underperformance in cash generation relative to previously-expected results, which may arise, for example, from the underperformance of certain assets, a deterioration in industry conditions or a decline in the economic environment. At each balance sheet date, if we expect that a CGU's recoverable amount will fall below the amount of capital employed recorded on the balance sheet, we may write down some value on given assets and/

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or the goodwill in part or in whole. Such a write-down would not in itself have an impact on cash flow, but could have a substantial negative impact on our operating income and net income, and as a result, on our shareholders' equity and net debt/equity ratio.

*We invest significant amounts of money in acquiring and processing seismic data for multi-client surveys and for our data library without knowing precisely how much of the data we will be able to sell or when and at what price we will be able to sell the data.*

We invest significant amounts of money in acquiring and processing seismic data that we own. By making such investments, we are exposed to the following risks:

We may not fully recover the costs of acquiring and processing the data through future sales. The amounts of these data sales are uncertain and depend on a variety of factors, many of which are beyond our control. In addition, the timing of these sales is unpredictable, and sales can vary greatly from period to period. Each of our individual surveys has a limited book life based on its location, so a particular survey may be subject to significant amortization even though sales of licenses associated with that survey are weak or non-existent, thus reducing our net income.

Technological or regulatory changes or other developments could also materially adversely affect the value of the data. For example, regulatory changes such as limitations on drilling could affect the ability of our customers to develop exploration programs, either generally or in a specific location where we have acquired seismic data, and technological changes could make existing data obsolete.

The value of our multi-client data could be significantly adversely affected if any adverse change occurs in the general prospects for oil and gas exploration, development and production activities in the areas where we acquire multi-client data or more generally.

Any reduction in the economic value of such data will require us to write down its recorded value, which could have a material adverse effect on our results of operations.

*Our results of operations may be significantly affected by currency fluctuations.*

We derive a substantial portion of our revenues from international sales, subjecting us to risks relating to fluctuations in currency exchange rates. Our revenues and expenses are mainly denominated in US dollars and euros, and to a significantly lesser extent, in Canadian dollars, Brazilian reais, Australian dollars, Norwegian kroner and British pounds. Historically, a significant portion of our revenues that were invoiced in euros related to contracts that were effectively priced in US dollars, as the US dollar often serves as the reference currency when bidding for contracts to provide geophysical services. Our expenses are not linked to the US dollar in the same way, leaving us exposed to currency fluctuations.

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, which are now reported in US dollars. Since most of the competitive bids for data acquisition contracts that we participate in are denominated in US dollars, the depreciation of the US dollar against the euro harms our competitive position against companies whose costs and expenses are denominated to a greater extent in US dollars. While we attempt to reduce the risks associated with such exchange rate fluctuations through our hedging policy, we cannot assure you that we will maintain our profitability level or that fluctuations in the values of the currencies in which we operate will not materially adversely affect our future results of operations. As of December 31, 2013, we estimate our annual fixed expenses in euros to be approximately 500 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 operating income and our shareholders' equity by approximately US\$50 million. See Exchange rate risks as of December 31, 2013 below.

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***Our working capital needs are difficult to forecast and may vary significantly, which could result in additional financing requirements that we may not be able to meet on satisfactory terms, or at all.***

It is difficult for us to predict with certainty our working capital needs. This difficulty is due primarily to working capital requirements related to the marine seismic acquisition business, multi-client projects and the development and introduction of new lines of geophysical equipment products. For example, under specific circumstances, we may have to extend the length of payment terms we grant to customers or may increase our inventories substantially. We may therefore be subject to significant and rapid increases in our working capital needs that we may have difficulty financing on satisfactory terms, or at all, due notably to limitations in our debt agreements or market conditions.

***Our results of operations may be affected by fluctuations in fuel costs.***

Our marine acquisition business, with a fleet of 21 seismic vessels as of December 31, 2013, incurs significant fuel costs, which were approximately US\$255 million in 2013. Fuel costs can vary depending on the supply location, local regulations and the price of crude oil at a given time. Only a portion of this variation can be contractually charged to or negotiated with the client. We therefore estimate that an increase by 20% of the average annual price of crude oil could increase our fuel costs and have a negative effect of approximately US\$25 million on our operating income.

***Our results of operations may be affected by the weight of intra-group production.***

We dedicate a significant part of our production capacity to intra-group sales. For example, the Acquisition division may acquire Sercel equipment, the Marine, Land, and Airborne Acquisition business lines may acquire multi-client data, and the Subsurface Imaging business line may process multi-client surveys. The relative size of our intra-group sales and our external sales has a significant impact both on our revenues and our operating results. With respect to intra-group sales, we capitalize only the direct production costs, and we treat the corresponding general and administrative costs as expenses in our income statement, which decreases operating profit for the period when the sales occur.

***Technological changes and new products and services are frequently introduced in the market, and our technology could be rendered obsolete by these introductions, or we may not be able to develop and produce new and enhanced products on a cost-effective and timely basis.***

Technology changes rapidly in the seismic industry, and new and enhanced products are frequently introduced in the market in which we operate, particularly in the equipment manufacturing and data processing and geosciences sectors. Our success depends to a significant extent upon our ability to develop and produce new and enhanced products and services on a cost-effective and timely basis in accordance with industry demands. While we commit substantial resources to research and development, we may encounter resource constraints or technical or other difficulties that could delay the introduction of new and enhanced products and services in the future. In addition, the continuing development of new products risks making our older products obsolete. New and enhanced products and services, if introduced, may not gain market acceptance and may be materially adversely affected by technological changes or introductions of other new products or services by one of our competitors.

***We depend on proprietary technology and are exposed to risks associated with the misappropriation or infringement of that technology.***

Our ability to maintain or increase prices for our products (such as Sercel equipment and GGR Division software) and services depends in part on our ability to differentiate the value delivered by our products and services from those delivered by our competitors. Our proprietary technology plays an important role in this differentiation. We rely on a combination of patents, trademarks and trade secret laws to establish and protect our



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proprietary technology. Patents last up to 20 years, depending on the date of filing and the protection accorded by each country. In addition, we enter into confidentiality and license agreements with our employees, customers and potential customers which limit access to and distribution of our technology. However, actions that we take to protect our proprietary rights may not be adequate to deter the misappropriation or independent third-party development of our technology. In addition, we may have lawsuits filed against us claiming that certain of our products, services, and technologies infringe the intellectual property rights of others. Although we do not have any current litigation involving our intellectual property rights or the intellectual rights of others which may have an impact on us, such litigation may take place in the future. In addition, the laws of certain foreign countries do not protect proprietary rights to the same extent as, in particular, the laws of France or the United States, which may limit our ability to pursue third parties that misappropriate our proprietary technology.

***Our failure to attract and retain qualified employees may adversely affect our future business and operations.***

Our future results of operations will depend in part upon our ability to retain certain of our highly skilled employees and to attract new ones. A number of our employees are highly skilled scientists and technicians. We compete with other seismic products and services companies and, to a lesser extent, companies in the oil industry for skilled geophysical and seismic personnel, particularly in times when demand for seismic services is relatively high. A limited number of such skilled personnel is available, and demand from other companies may limit our ability to fill our human resources needs. If we are unable to hire and retain a sufficient number of qualified employees, this could impair our ability to compete in the geophysical services industry and to develop and protect our know-how. Our success also depends to a significant extent upon the abilities and efforts of members of our senior management, the loss of whom could materially adversely affect our business and results of operations.

***We have had losses in the past and there is no assurance of our profitability for the future.***

We have experienced losses in the past. In 2009, 2010, 2011 and 2013, we recorded a net loss attributable to shareholders of US\$361.1 million, US\$59.4 million, US\$13.2 million and US\$691.2 million, respectively. However, in 2008 and 2012, our net profit attributable to shareholders amounted to US\$502.7 million and US\$92.4 million, respectively. There is therefore no assurance as to our profitability for the future<sup>(1)</sup>.

**RISKS RELATED TO OUR INDUSTRY*****The volume of our business depends on the level of capital expenditures by the oil and gas industry, and reductions in such expenditures may have a material adverse effect on our business.***

Demand for our products and services has historically been dependent upon the level of capital expenditures by oil and gas companies for exploration, production and development activities. These expenditures are significantly influenced by oil and gas prices and by expectations regarding future hydrocarbon prices, which may fluctuate based on relatively minor changes in the supply of and demand for oil and gas, expectations regarding such changes and other factors beyond our control. Lower or volatile hydrocarbon prices tend to limit the demand for seismic services and products.

Factors affecting prices and, consequently, demand for our products and services, include:

demand for hydrocarbons;

worldwide political, military and economic conditions, including political developments in the Middle East and North Africa, economic growth levels, the availability of financing and the ability of OPEC to set and maintain production levels and prices for oil;

<sup>(1)</sup> *Effective January 1, 2013, we applied IAS 19 revised Employees benefits. As the application of this new standard is a change of accounting policy, all comparative financial information, starting from 2009, has been restated to present comparative amounts for each period presented as if the new accounting policy had always been applied.*

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laws or regulations restricting the use of fossil fuels or taxing such fuels and governmental policies regarding atmospheric emissions and use of alternative energy;

levels of oil and gas production;

the rate of depletion of existing oil and gas reserves and delays in the development of new reserves;

the pressure imposed by equity markets on oil and gas companies to maintain a dividend distribution policy which could lead them to significantly reduce their capital expenditure plans in the short term;

oil and gas inventory levels;

the price and availability of alternative fuels;

policies of governments regarding the exploration for and production and development of oil and gas reserves in their territories; and

general weather conditions, with warmer temperatures decreasing demand for products such as heating oil and extreme weather events potentially disrupting oil and gas exploration or production operations over a wide area.

Increases in oil and natural gas prices may not increase demand for our products and services or otherwise have a positive effect on our financial condition or results of operations. Forecasted trends in oil and gas exploration and development activities may not materialize and demand for our products and services may not reflect the level of activity in the industry. In particular, with respect to the marine acquisition market, prices remain very dependent upon the balance between supply and demand. They can thus fluctuate only slightly or even decline, even as demand increases if, at the same time, the available production capacity in the market increases to a greater degree (which was the case during 2010 and 2011).

***Our backlog includes contracts that can be unilaterally delayed or terminated at the client's option.***

In accordance with industry practice, contracts for the provision of seismic services typically can be delayed or terminated at the sole discretion of the client without payment of significant cancellation costs to the service provider. As a result, even if contracts are recorded in backlog, there can be no assurance that such contracts will be wholly executed by us and generate actual revenue, or even that the total costs already borne by us in connection with the contract would be covered in full pursuant to any cancellation clause. Furthermore, there can be no assurance that contracts in backlog will be performed in line with their original timetable and any possible delay could result in operating losses as most of our costs are fixed.

***We are subject to intense competition in the markets where we carry out our operations, which could limit our ability to maintain or increase our market share or maintain our prices at profitable levels.***

Most of our contracts are obtained through a competitive bidding process, which is standard for our industry. Competitive factors in recent years have included price, crew availability, technological expertise and reputation for quality, safety and dependability. While no single company competes with us in all of our segments, we are subject to intense competition in each of our segments. We compete with large, international companies as well as smaller, local companies. In addition, we compete with major service providers and government-sponsored enterprises and affiliates. Some of our competitors operate more crews than we do and have greater financial and other resources than we do. These and other competitors may be better positioned to withstand and adjust more quickly to volatile market conditions, such as fluctuations in oil and gas prices and production levels, as well as changes in government regulations. In addition, if geophysical service competitors increase their capacity (or do not reduce capacity if demand decreases), the excess supply in the seismic services market could apply downward pressure on prices. The negative effects of the competitive environment in which we operate could have a material adverse effect on our results of operations.



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*We have taken significant measures to adapt our fleet to changes in the seismic market, and we may take adjustment measures depending on the seismic market in the future, that could impose exceptional charges.*

Our fleet of marine seismic acquisition vessels has evolved in the past in reaction to changes in the seismic market and our marine strategy. For example, our 2009 capacity plan reduced the size of the fleet to adjust to reduced seismic market demand, and our 2010 performance plan re-aligned our fleet components to focus on the high-end segment of the market. When we acquired Fugro's fleet, we retained only the C-class vessels; the *Geo Atlantic* was decommissioned in 2013, and we intend to use the *Geo Barents* vessel as a source vessel until its charter ends in 2014. In February 2014, we announced our intention to reduce the fleet from 18 to 13 3D high-end vessels by the end of 2016, and we have already stopped operating the *Symphony*. Past fleet reductions have generated, and we expect that current and any future reductions will generate, non-recurring charges and could hinder our operational scope in marine acquisition activity.

*We have high levels of fixed costs that are incurred regardless of our level of business activity.*

We have high fixed costs and seismic data acquisition activities that require substantial capital expenditures. As a result, downtime or decreased productivity due to reduced demand, weather interruptions, equipment failures, permit delays or other circumstances that affect our ability to generate revenue could result in significant operating losses.

*The revenues we derive from land and marine seismic data acquisition vary significantly during the year.*

Our land and marine seismic data acquisition revenues are partially seasonal in nature. In the marine market notably, certain basins can be very active and absorb higher capacity during a limited period of the year (such as the North Sea between April and September), triggering significant volatility in demand and price in their geographical markets throughout the year. The marine data acquisition business is, by its nature, exposed to unproductive interim periods due to vessel maintenance and repairs or transit time from one operational zone to another during which revenue is not recognized. Other factors that cause variations from quarter to quarter include the effects of weather conditions in a given operating area, the internal budgeting process of some important clients for their exploration expenses, and the time needed to mobilize production means or obtain the administrative authorizations necessary to commence data acquisition contracts.

*Our business and that of our customers are subject to governmental regulation, which may adversely affect our operations or demand for our products in the future.*

Our operations are subject to a variety of international, federal, regional, national, foreign and local laws and regulations, including flight clearances (for airborne activities), environmental, health and safety and labor laws. We invest financial and managerial resources to comply with these laws and related permit requirements. Our failure to do so could result in fines, enforcement actions, claims for personal injury or property damages, or obligations to investigate and/or remediate contamination. Failure to obtain the required permits on a timely basis may also prevent us from operating in some cases, resulting in increased crew downtime and operating losses. Moreover, if applicable laws and regulations, including environmental, health and safety requirements, or the interpretation or enforcement thereof, become more stringent in the future, we could incur capital or operating costs beyond those currently anticipated. The adoption of laws and regulations that directly or indirectly curtail exploration by oil and gas companies could also adversely affect our operations by reducing the demand for our geophysical products and services.

In the United States, new regulations governing oil and gas exploration were put in place following the Deepwater Horizon platform disaster in the Gulf of Mexico. These new regulations may have a significant financial impact on oil and gas companies that wish to carry out exploration projects in deep-water Gulf of Mexico. Our client mix could be altered with the disappearance of small and medium sized players, which could decrease our sales of multi-client data.

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### ***We are exposed to environmental risks***

We are subject to various laws and regulations in the countries where we operate, particularly with respect to the environment. These laws and regulations may require Group companies to obtain licenses or permits prior to signing a contract. Our management believes that we comply with applicable environmental laws; however, frequent changes in such laws and regulations make it difficult to predict their cost or impact on our future operations. We are not implicated in any legal proceedings relating to environmental matters and are not aware of any claim or any potential liability in this area that could have a significant effect on our business or financial position.

Furthermore, we may be affected by new laws or regulations intended to limit or reduce emissions of gases, such as carbon dioxide and methane, which may be contributing to climate change, and these laws or regulations may affect our operations or, more generally, the production and demand for fossil fuels such as oil and gas. The European Union has already established greenhouse gas regulations, and many other countries, including the United States, may do so in the future. This could impose additional direct or indirect costs on us as our suppliers incur additional costs that get passed on to us or reduce our customers' demand for our products or services.

We have made a consistent effort in recent years to improve environmental protection and safety, resulting in strengthened procedures and the adoption of measures to increase awareness among personnel and subcontractors, in particular through periodic mandatory safety meetings on the ground and onboard vessels. We have implemented a comprehensive system for managing health, safety and the environment, covering all activities, and we continue to adapt it to all of our activities.

### **RISKS RELATED TO OUR INDEBTEDNESS**

#### ***Our substantial debt could adversely affect our financial health and prevent us from fulfilling our obligations.***

We have a significant amount of debt. As of December 31, 2013, our net financial debt (which we define as gross financial debt less cash and cash equivalents) amounted to US\$2,218 million. As of this date, we had a debt reimbursable in cash or shares amounting to US\$2,300 million ( 1,668 million), which corresponds to net financial debt less financial leases, and before IFRS accounting adjustments related to convertible bonds and issuing fees. Total capital employed as of December 31, 2013 was US\$6,108 million ( 4,429 million). We cannot assure you that we will be able to generate sufficient cash to service our debt or sufficient earnings to cover fixed charges in future years.

Our substantial debt could have important consequences. In particular, it could:

increase our vulnerability to general adverse economic and industry conditions;

require us to dedicate a substantial portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow to fund capital expenditures and other general corporate purposes;

limit our ability to plan for, or react to, changes in our businesses and the industries in which we operate;

place us at a competitive disadvantage compared to competitors that have less debt; and

limit our ability to borrow additional funds.

***Our debt agreements contain restrictive covenants that may limit our ability to respond to changes in market conditions or pursue business opportunities.***

The agreements governing our borrowings and our US and French senior revolving facilities contain restrictive covenants that limit our ability and the ability of certain of our subsidiaries to, among other things:

incur or guarantee additional indebtedness or issue preferred shares;

pay dividends or make other distributions;

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purchase equity interests or reimburse subordinated debt prior to its maturity;

create or incur certain liens;

enter into transactions with affiliates;

issue or sell capital stock of subsidiaries;

engage in sale-and-leaseback transactions; and

sell assets or merge or consolidate with another company.

Complying with the restrictions contained in some of these agreements requires us to meet certain ratios and tests, relating notably, to consolidated interest coverage and net indebtedness. The requirement that we comply with these provisions may adversely affect our ability to react to changes in market conditions, take advantage of business opportunities we believe to be desirable, obtain future financing, fund capital expenditures, or withstand a continuing or future downturn in our business.

Detailed information relating to our debt and the restrictions set forth in our borrowing agreements is contained in note 13 to our 2013 consolidated financial statements.

Our new French revolving facility entered into on July 31, 2013 and our new US revolving facility entered into on July 15, 2013 and amended on July 31, 2013 require that we meet the following ratios, which are tested at the end of each quarter for the rolling 12-month testing period:

a maximum ratio of consolidated total net debt to consolidated EBITDA of not more than 3.00: to 1:00;

a maximum ratio of consolidated EBITDA to total interest costs of at least 4:00 to 1:00.

Our US\$200 million term loan and revolving facilities entered into on July 1, 2013 require that we meet the following ratios and tests:

a minimum of cash plus cash equivalents of not less than US\$75 million at all times;

a maximum ratio of total net financial debt to EBITDA of not more than 3.00:1.00; and

a minimum ratio of EBITDA to total interest costs of at least 3.00:1.00.

***If we are unable to comply with the restrictions and covenants in the indentures governing our Senior Notes, the agreements governing our US and French senior revolving facilities and other current and future debt agreements, there could be a default under the terms of these indentures and agreements, which could result in an acceleration of repayment.***

If we are unable to comply with the restrictions and covenants in the indentures governing our Senior Notes or in other current or future debt agreements, including those governing our US and French senior revolving facilities, there could be a default under the terms of these indentures and agreements. Our ability to comply with these restrictions and covenants, including meeting financial ratios and tests, may be affected by events beyond our control. As a result, we cannot assure you that we will be able to comply with these restrictions and covenants or meet such financial ratios and tests. In certain events of default under these agreements, lenders could terminate their commitments to lend or accelerate the

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loans or bonds and declare all amounts outstanding due and payable. Borrowings under other debt instruments that contain cross-acceleration or cross-default provisions may also be accelerated and become due and payable. If any of these events occur, our assets might not be sufficient to repay in full all of our outstanding indebtedness and we may be unable to find alternative financing. Even if we could obtain alternative financing, it might not be on terms that are favorable or acceptable to us.



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### ***We and our subsidiaries may incur substantially more debt.***

We and our subsidiaries may incur substantial additional debt (including secured debt) in the future. The terms of the indentures governing our Senior Notes and the agreements governing our US and French revolving facilities and our other existing senior indebtedness limit, but do not prohibit, us and our subsidiaries from doing so.

On July 1, 2013, we entered into a 5-year US\$200 million term loan and revolving facilities secured by three vessels (*Geo Coral, Geo Caribbean, Oceanic Challenger*), split into two tranches of US\$100 million each, the proceeds of which were used in part to reimburse a portion of the vendor loan granted by Fugro. As of December 31, 2013, US\$95 million of the revolving facility tranche was drawn and US\$95 million were outstanding under the term loan tranche.

On July 15, 2013, we entered into a new US revolving credit facility of up to US\$165 million with a 5-year maturity. This facility was undrawn as of December 31, 2013.

On July 31, 2013, we entered into a new French revolving credit facility of up to US\$325 million with a 3-year maturity with two extension options of one year each. 110 million (US\$152 million) was drawn as of December 31, 2013. As of December 31, 2013, we had long-term confirmed and undrawn credit lines (including revolving facilities) amounting to US\$343 million.

If new debt is added to our current debt levels, the related risks for us could intensify.

***To service our indebtedness and make capital expenditures, we require a significant amount of cash, and our ability to generate cash will depend on many factors beyond our control.***

Our ability to make payments on and to refinance our indebtedness, and to fund planned capital expenditures, depends in part on our ability to generate cash in the future. This ability is, to a certain extent, subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

We cannot assure you that we will generate sufficient cash flow from operations to realize operating improvements on schedule or that future cash from operations and borrowings will be available to us in an amount sufficient to enable us to service and repay our indebtedness or to fund our other liquidity needs. If we are unable to satisfy our debt obligations, we may have to undertake alternative financing plans, such as refinancing or restructuring our indebtedness, selling assets, reducing or delaying capital investments or seeking to raise additional capital. We cannot assure you that any refinancing or debt restructuring would be possible, that any assets could be sold or that, if sold, the timing of the sales and the amount of proceeds realized from those sales would be favorable to us or that additional financing could be obtained on acceptable terms. Any disruptions in the capital and credit markets could adversely affect our ability to meet our liquidity needs or to refinance our indebtedness, including our ability to draw on our existing credit facilities or enter into new credit facilities. Banks that are party to our existing credit facilities may not be able to meet their funding commitments to us if they experience shortages of capital and liquidity or if they experience excessive volumes of borrowing requests from us and other borrowers within a short period of time. Furthermore, changes in the monetary policies of the US Federal Reserve and the European Central Bank may increase our financing costs and consequently adversely impact our ability to refinance our indebtedness.

## **MARKET AND OTHER RISKS**

### ***We are exposed to liquidity risks***

Persistent volatility in the financial markets could have a material adverse effect on our ability to refinance all or a portion of our indebtedness and to otherwise fund our operational requirements. We cannot be certain that additional funds will be available if needed to make future investments in certain projects, take advantage of

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acquisitions or other opportunities or respond to competitive pressures. If additional funds are not available, or are not available on terms satisfactory to us, there could be a material adverse impact on our business and financial performance.

As of December 31, 2013, we had US\$2,218 million ( 1,608 million) of net debt with US\$2,748 million ( 1,992 million) financial debt (of which US\$24 million ( 18 million) was bank overdrafts and accrued interest) and US\$530 million ( 384 million) of cash and cash equivalents.

As of December 31, 2013, our financial debt consisted primarily of:

US\$225 million outstanding principal amount of our 9 1/2% Senior Notes due 2016, US\$400 million outstanding principal amount of our 7 3/4% Senior Notes due 2017 and US\$650 million outstanding principal amount of our 9 1/2% Senior Notes due 2021;

360 million outstanding principal amount of our 1.75% OCEANE convertible bonds (bonds convertible into or exchangeable for new or existing shares) due 2016;

360 million outstanding principal amount of our 1.25% OCEANE convertible bonds (bonds convertible into or exchangeable for new or existing shares) due 2019;

Our US\$325 million French revolving facility, of which 110 million was drawn as of December 31, 2013;

Our US\$165 million US revolving facility, undrawn as of December 31, 2013;

Our US\$200 million term loan and revolving facilities secured by three vessels (*Geo Coral*, *Geo Caribbean*, *Oceanic Challenger*), of which US\$95 million was drawn under the revolving facility and US\$95 million was outstanding under the term loan as of December 31, 2013;

112.5 million under the vendor loan granted by Fugro; and

a total of US\$39 million (out of which US\$30 million was drawn) under various credit lines held by several of our subsidiaries. The breakdown of our financial liabilities is presented in the table below:

(In millions of US dollars)	12/31/2013	N+1		N+2 to N+4		N+5 and >		Total	
		Nominal	Interests	Nominal	Interests	Nominal	Interests	Nominal	Interests
Senior Notes & convertible bonds	2,122		110	1,065	268	1,057	157	2,122	535
Bank borrowings	368	204	8	135	13	30	1	368	22
Financial leases	121	9	6	30	16	82	14	121	35
Banks overdrafts	5	5						5	
Other financial debts	174	19	9	116	26	39	2	174	37
Derivative instruments									
Cash	(530)								
<b>Total net financial liabilities</b>	<b>2,260</b>	<b>236</b>	<b>133</b>	<b>1,346</b>	<b>323</b>	<b>1,208</b>	<b>174</b>	<b>2,790</b>	<b>629</b>



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The Senior Notes, the term loan and revolving facilities secured by three vessels and the French and US senior revolving facilities contain certain restrictive covenants, including covenants that require compliance with certain financial ratios. For the term loan and revolving facilities secured by vessels and the French and US senior revolving facilities, these financial ratios and tests were as follows as of December 31, 2013:

Ratio	US senior revolving facility Requirement		French senior revolving facility Requirement		Term loan and revolving facilities secured by vessel assets Requirement	12.31.2013
	£		£			
Total net debt to EBITDA	3.00		3.00		£3.00	1.96x
EBITDA to total interest costs	<sup>3</sup> 4.00		<sup>3</sup> 4.00		<sup>3</sup> 3.00	6.14x
Minimum liquidity	N/A		N/A		Cash plus Cash Equivalents > US\$75 million	US\$530 million

As of December 31, 2013, our available financial resources amounted to US\$781 million (including cash, cash equivalents, marketable securities and undrawn syndicated credit lines).

**We are exposed to interest rate risk**

We may be required to obtain a portion of our borrowings from financial institutions at variable interest rates indexed to draw periods ranging from one to 12 months. As a result, our interest expenses on this debt vary in line with movements in short-term interest rates. However, a significant portion of our debt consists of fixed-rate bonds, as well as a number of fixed-rate finance leases and fixed-rate medium-term bank credit facilities with variable maturities (see note 14 Financial Instruments to our consolidated financial statements, included elsewhere in this document). This debt is not exposed to interest rate fluctuations.

Net exposure to interest rate risk before and after hedging

The following table shows our variable interest rate exposure by maturity as of December 31, 2013.

12.31.2013	Financial assets(*) (a)		Financial liabilities(*) (b)		Net position before hedging (c)=(a)-(b)		Off-balance sheet position (d)		Net position after hedging (e)=(c)+(d)	
	Fix rate	Variable rate	Fix rate	Variable rate	Fix rate	Variable rate	Fix rate	Variable rate	Fix rate	Variable rate
<i>In million US dollars</i>										
Overnight to 1 year	124	336	68	154	56	183			56	183
1 to 2 years			833	14	(833)	(14)			(833)	(14)
3 to 5 years			970		(970)				(970)	
More than 5 years			683		(683)				(683)	
<b>Total</b>	<b>124</b>	<b>336</b>	<b>2,555</b>	<b>168</b>	<b>(2,431)</b>	<b>169</b>			<b>(2,431)</b>	<b>169</b>

(\*) Excluding bank overdrafts and accrued interest

As of December 31, 2013, our variable-rate assets (net of liabilities) maturing in less than one year totaled US\$183 million.

The following table shows our variable interest rate exposure over our financial assets and liabilities as of December 31, 2013:

12.31.2013

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<i>In million US dollars</i>	<b>Impact on result before tax</b>	<b>Impact on shareholders' equity before tax</b>
Impact of an interest rate variation of +0.8%	1.3	1.3
Impact of an interest rate variation of -0.8%	(1.3)	(1.3)

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The sensitivity analysis is based on a net exposure of US\$169 million.

Our variable interest rate indebtedness carried an average interest rate of 2.2% in 2013, and our investments and other financial assets earned interest at an average rate of 0.8%.

**Exchange rate risks as of December 31, 2013**

The following table shows our exchange rate exposure as of December 31, 2013:

	12.31.2013							
	Assets	Liabilities	Currency commitments	Net position before hedging		Off-balance sheet positions	Other hedging instruments	Net position after hedging
(Converted in millions of US\$)	(a)	(b)	(c)	(d) = (a)	(b) ± (c)	(e)	(f)	(g) = (d) + (e)-(f)
US\$ <sup>(1)</sup>	1,989.0	1,055.9	0.0	933.1		3.1	920.5	15.7

<sup>(1)</sup> US\$-denominated assets and liabilities in the entities whose functional currency is the euro.

	12.31.2013						
	Assets	Liabilities	Currency commitments	Net position before hedging		Off-balance sheet positions	Net position after hedging
(In millions of EUR)	(a)	(b)	(c)	(d) = (a)	(b) ± (c)	(e)	(f) = (d) + (e)
EUR <sup>(2)</sup>	110.4	113.7	0.0	-3.3		0.0	-3.3

<sup>(2)</sup> Euro-denominated assets and liabilities in the entities whose functional currency is the US\$.

Our net foreign-exchange exposure is principally linked to the euro. We seek to reduce our foreign-exchange position by selling the future receivables surplus over euro costs of our Equipment division as soon as they enter the backlog and taking out dollar-denominated loans supported by long-term assets. Although we attempt to reduce the risks associated with exchange rate fluctuations, we cannot assure you that fluctuations in the values of the currencies in which we operate will not materially adversely affect our future results of operations. Our annual fixed expenses in euros are equal to approximately 500 million and as a consequence, an unfavorable variation of US\$0.10 in the average yearly exchange rate between the US dollar and the euro would reduce our operating income and our shareholders' equity by approximately US\$50 million.

We have also a substantial net foreign-exchange exposure related to the Norwegian krone. As of December 31, 2013,

our NOK-denominated assets and liabilities, in the entities whose functional currency is the US dollar, had a passive net position after hedging equivalent to US\$10 million, and

our US\$-denominated assets and liabilities, in the entities whose functional currency is the NOK, had an active net position after hedging equivalent to US\$12 million.

We monitor our balance sheet exposure through either forward sales or capital operations.

As a result of our compliance with IAS 12 (Income Taxes), our results of operation are also exposed to the effect of exchange rate variations on our deferred tax amounts when the functional currency for an entity that owns a non-cash asset is not the same as the currency used for taxation purposes.

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With respect to exchange rate risk related to investments in operating subsidiaries, we consider such risk to be low, since the functional currency of the majority of operating entities is the US dollar.

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## Sensitivity Analysis Table

In US\$ million	Impact on result before taxes		Impact on shareholders' equity before taxes	
	Increase of 10 cents	Decrease of 10 cents	Increase of 10 cents	Decrease of 10 cents
In US\$ million	50	(50)	50	(50)
<b>TOTAL</b>	<b>50</b>	<b>(50)</b>	<b>50</b>	<b>(50)</b>

***We are exposed to risk related to equities and financial instruments***

We are exposed to risk of fluctuations in the value of equities and other financial instruments we may hold.

Any transactions involving our own shares are decided by management in accordance with applicable regulations.

As of December 31, 2013, we owned 800,000 of our own shares with a balance sheet value of US\$20.6 million. As those shares are valued at historical cost, changes in the stock's market price do not have any impact in the consolidated statements of the Group.

Our investment policy does not authorize short term investment in the equities of other companies.

The fair value of the own shares as of December 31, 2013 is as follows:

12.31.2013	At fair value	Available for sales	Held to maturity	Derivatives	Total
Shares	US\$ 13.9 million				US\$ 13.9 million
<b>Total</b>	<b>US\$ 13.9 million</b>				<b>US\$ 13.9 million</b>

***Credit risk and counter-party risk***

We seek to minimize our counter-party risk by entering into hedging contracts only with highly rated commercial banks or financial institutions and by distributing the transactions among the selected institutions. Although our credit risk is the replacement cost at the then-estimated fair value of the instrument, we believe that the risk of incurring losses is remote and those losses, if any, would not be material. Our receivables and investments do not represent a significant concentration of credit risk due to the wide variety of customers and markets in which we sell our services and products and our presence in many geographic areas. In 2013, the Group's two most significant customers accounted 5.1% and 3.9% of the Group's consolidated revenues compared with 7.1% and 5.8% in 2012 and 13.0% and 3.0% in 2011.

***Risk relating to the financial market environment***

The current situation in the credit and capital markets is likely to have a significant adverse impact on industrial and commercial performance and the solvency of many companies in general, which may affect some of our customers and suppliers. As a result, the current economic climate may have an adverse impact on our business if customers cancel orders or delay or default on payment, or if suppliers fail to provide goods and services as agreed.

To deal with these risks as effectively as possible:



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We limit customer risk by taking a selective approach with our customers (including looking at their solvency) in our Services business and by using letters of credit in our Equipment business; and

We, and Sercel in particular, have adopted a highly selective policy regarding suppliers, aimed at keeping exposure to any one supplier within prudent limits.

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### **Risks related to insurance**

The nature of our business subjects us to significant ongoing operating risks for which we may not have adequate insurance or for which we may not be able to procure adequate insurance on reasonable terms, if at all.

The nature of our business involves ongoing and significant operating risks for which we are not always insured, and in respect of which we may not be able to obtain adequate insurance at economically reasonable rates, if at all.

Our seismic data acquisition activities, particularly in deepwater marine areas, are often conducted under harsh weather and other hazardous operating conditions, including the detonation of dynamite. These operations are subject to the risk of downtime or reduced productivity, as well as to the risks of loss to property and injury to personnel resulting from fires, accidental explosions, mechanical failures, spills, collisions, stranding, ice floes, high seas and natural disasters. In addition to losses caused by human errors and accidents, we may also be subject to losses resulting from, among other things, war, terrorist activities, piracy, political instability, business interruption, strikes and weather events.

Our extensive range of seismic products and services expose us to litigation and legal proceedings including those related to product liability, personal injury and contract liability.

We produce and sell highly complex products and we cannot assure you that our extensive product development, manufacturing controls and testing will be adequate and sufficient to detect all defects, errors, failures, and quality issues that could affect our customers and result in claims against us, order cancellations or delays in market acceptance.

We have put in place insurance coverage against operating hazards, including product liability claims and personal injury claims, damage, destruction or business interruption of data processing centers, manufacturing centers and other facilities, in amounts we consider appropriate in accordance with industry practice. Our risk coverage policy reflects our objective of covering major claims that could affect our facilities and equipment, as well as third-party liability claims that we may be exposed to as a result of our activities. We review the adequacy of insurance coverage for risks we face periodically. Whenever possible, we obtain agreements from customers that limit our liability.

However, we cannot assure you that our insurance coverage will be sufficient to fully indemnify us against liabilities arising from pending and future claims or that our insurance coverage will be adequate in all circumstances or against all hazards, or that we will be able to maintain adequate insurance coverage in the future at commercially reasonable rates or on acceptable terms.

### **Risks related to outsourcing**

Disruptions to our supply chain and other outsourcing risks may adversely affect our ability to deliver our products and services to our customers.

Our supply chain is a complex network of internal and external organizations responsible for the supply, manufacture and logistics supporting our products and services around the world. We are vulnerable to disruptions in this supply chain from changes in government regulations, tax and currency changes, strikes, boycotts and other disruptive events as well as from unavailability of critical resources. These disruptions may have an adverse impact on our ability to deliver products and services to our customers.

Within our Group, Sercel makes particular use of subcontracting. Our French manufacturing sites outsource part of their production to local third-party companies selected according to certain criteria, including quality and financial soundness. Outsourced operations are distributed among several entities, each having a small proportion of aggregate outsourced activity in order to limit risk related to the failure of any one of our subcontractors. For our services business, our policy is not to rely on outsourcing for any of our activities, except in special cases where there is a lack of available capacity.

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If our suppliers, vendors, subcontractors or other counterparties are unable to perform their obligations to us or our customers, we may be required to provide additional services or make alternate arrangements on less favorable terms with other parties to ensure adequate performance and delivery of service to our customers. These circumstances could also lead to disputes and litigation with our partners or customers, which could have a material adverse impact on our reputation, business, financial condition and results of operations.

### **Item 4: INFORMATION ON THE COMPANY**

#### **Introduction**

We are a global participant in the geoscience industry, as a manufacturer of geophysical equipment, as a provider of marine, land and airborne data acquisition services, and as a provider of a wide range of other geoscience services, including data imaging, seismic data characterization, geoscience and petroleum engineering consulting services, and collecting, developing and licensing geological data. Our clients are principally in the oil and gas exploration and production industry.

We have more than 100 years of combined operating experience (through CGG, Veritas and Fugro Geoscience) and a recognized track record of technological leadership in the science of geophysics and geology. We believe we are well placed to capitalize on the growing importance of seismic and geoscience technologies to enhance the exploration and production performance of our broad base of clients, which includes independent, international and national oil companies.

CGG SA is the parent company of the CGG Group. We are a *société anonyme* incorporated under the laws of the Republic of France and operating under the French Commercial Code. Our registered office is at Tour Maine Montparnasse, 33, avenue du Maine, 75015 Paris, France. Our telephone number is (33) 1 64 47 45 00.

#### ***Organization***

Until February 1, 2013, CGG was organized with two business segments: Geophysical Equipment and Geophysical Services.

Our Geophysical Equipment segment was specialized in the development and production of seismic land and marine acquisition systems and in borehole equipment.

Our Geophysical Services segment was composed of the land and marine contract divisions, the multi-client land and marine seismic data acquisition division and the processing, imaging and reservoir division.

Starting February 1, 2013 and following the Geoscience Acquisition described below, we changed our organization in order to align the management structure of the Group with its new size and strategy of development. We now have three business segments (Equipment, Acquisition and Geology, Geophysics and Reservoir (GGR) including ten business lines, but also six transverse functions and five transverse departments. We believe that these three new divisions allow us to better cover the spectrum from exploration to production, giving us more opportunities to create value for our shareholders, customers and partners.

#### ***The Geoscience Acquisition***

Pursuant to the terms of a Sale and Purchase Agreement (the "SPA") between the Company and Fugro dated September 24, 2012, we agreed to acquire most of the Geoscience Division of Fugro (the "Acquisition"). In particular, we agreed to acquire:

Fugro-Geoteam (specializing in marine streamer seismic data acquisition);

Fugro Seismic Imaging (specializing in seismic data processing services);

Fugro Geophysical and Geological Services (specializing in geographical exploration services);



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De Regt Marine Cables (specializing in high-end cables and umbilicals);

as well as all related entities and assets, but excluding Fugro's multi-client library and ocean bottom nodes ( OBN ) activity (the acquired activities are referred to herein as the Geoscience Division ).

Pursuant to the terms of the SPA as amended on January 27, 2013, we also agreed to establish certain strategic partnerships with Fugro, in particular, to:

establish a joint venture with Fugro, Seabed Geosolutions BV, to which Fugro would contribute its OBN activity and we would contribute our shallow water, ocean bottom cable ( OBC ) and OBN activities (the Seabed JV ); and

enter into certain commercial agreements with Fugro, including (i) a non-exclusive selling and marketing agreement with respect to Fugro's multi-client library, (ii) a technological and commercial agreement providing reciprocal preferred supplier status and (iii) a transitional services agreement (together, the Commercial Agreements ).

The total price for the Acquisition was set at 1.2 billion subject to further customary price adjustments (based in particular on the amount of the working capital of the Geoscience Division). The transaction was subject to customary conditions precedent, in particular mandatory anti-trust clearances.

Closing of the Commercial Agreements and the Acquisition took place on January 31, 2013, with the exception of the airborne activity, which was contributed on September 2, 2013. The Seabed JV was substantially closed on February 16, 2013.

Taking into account the estimate of the acquired working capital as of the closing date and the amount subsequently paid by Fugro to reach a 60% shareholding in the Seabed JV, the net cost of the transaction amounted to 975 million.

It was financed with (i) the net proceeds of the 414 million capital increase by way of rights issue that we conducted in October 2012, (ii) the net proceeds of the 360 million convertible bonds that we issued in November 2012, and (iii) a vendor loan from Fugro which was agreed upon to achieve a rapid closing. This vendor loan amounted to 125 million at the closing date, and was extended to 225 million upon the effective acquisition of the airborne activity. On August 21, 2013, we repaid 112.5 million under the vendor loan. 112.5 million remained outstanding as of December 31, 2013.

## **Our Strategy**

We intend to continue to provide leading geological, geophysical and reservoir capabilities to our broad base of customers primarily from the global oil and gas industry. Our goal is to capitalize on growth opportunities resulting from the application of new technologies in every sector of the oil and gas business from exploration to production and reservoir management and from the worldwide presence of our three complementary business segments (Equipment, Acquisition, and Geology, Geophysics & Reservoir (GGR)).

To achieve this objective, we have adopted the following strategies:

### ***Rebalance our profile towards more profitable and less capital intensive businesses***

We believe that our Acquisition businesses, which are cyclical, highly capital-intensive and have generated lower profitability in recent years, need to be downsized significantly. We plan to position the Acquisition businesses more on the high-end of the market, where technological differentiation is a critical factor, in order to increase profitability. This should also allow us to increase the relative weight of the Equipment and GGR segments contributions to Group results, which we believe will increase our overall profitability, reduce the volatility of our earnings and improve our cash generation.

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Our plan for the Marine Acquisition business is to reduce the capacity of our directly-operated fleet by 25%, which should lead to a significant reduction in fixed costs and capital expenditure, while maintaining the critical size needed to support our world-leading position, address global regional markets and consolidate our leadership in the high-end broadband and global solution marine markets.

In the Land Acquisition business, our plan is to expand the scope of our partnership with TAQA throughout the Middle East by regrouping the existing joint ventures under the sole umbrella of ARGAS, owned 51% by TAQA and 49% by CGG. In the rest of the world, we intend to focus and concentrate our presence on high-end niche markets, adopting a technology provider business model to the extent possible.

### ***Improve our operational efficiency, profitability and cash generation***

In line with what has been achieved over the last three years as a result of the Performance Plan that we launched at the end of 2010, we intend to continue our tight cost control, maintain a low level of general and administrative expenses and, more generally, reduce our fixed cost base. We expect notably to reduce our break-even point in line with the right-sizing of our Acquisition businesses and particularly our marine assets.

We will also continue to maintain a strong focus on operational performance and on cash generation through tight monitoring of working capital and capital expenditures.

### ***Focus on growth areas***

We intend to focus on developing our technological capabilities in emerging markets for geoscience-related services, including reservoir appraisal and production monitoring. We also believe that we have unique experience and expertise in very dense and productive seismic acquisition projects, such as high channel count land crews in the Middle East and full azimuth high resolution offshore surveys in the Gulf of Mexico. Furthermore, we believe our geographic footprint will allow us to respond to the growing demand for all kinds of seismic imaging and reservoir solutions.

We also intend to maintain our position in the onshore and offshore seismic multi-client markets by developing our multi-client data library. We believe that a strong position in this market segment enhances our global competitive position and may provide opportunities for continuing future sales. In developing our multi-client data library, we carefully select survey opportunities in order to maximize our return on investment. We also intend to apply the latest advances in depth imaging and wide azimuth technologies to a selected part of our existing library.

Given the growing importance of geophysics in reservoir characterization, and the strong reputation of Jason and Robertson, two activities formerly belonging to Fugro that we acquired on January 31, 2013, we intend to further develop the synergies between our leading network of 42 data processing centers and reservoir services. We pursue continuous innovation to allow for increased integration of data processing into reservoir studies, which will provide enhanced reservoir knowledge and allow for improved exploitation. This approach places us in a better position to meet the requirements of our clients with an extensive range of integrated solutions.

With the increasing use of wide-azimuth and high resolution surveys and the growing demand for advanced imaging capabilities, we also intend to increase our processing capability in developing disciplines, such as reservoir description and monitoring, including wide-azimuth, multi-component and 4D studies. We also plan to continue promoting and developing our dedicated subsurface imaging centers within our clients' offices and developing our regional centers.

We plan as well to develop reservoir interpretative solutions, notably through the creation of two new business lines, GeoSoftware and GeoConsulting, within our GGR Division. GeoSoftware is the worldwide leader in advanced seismic reservoir characterization technology. It brings together CGG's commercial software, including Jason and Hampson-Russell, and the associated sales, marketing and product services, such as training,

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product support and product mentoring. GeoConsulting is a full-spectrum geological and geophysical consulting services organization. In addition to our seismic reservoir characterization services supporting our Jason and Hampson-Russell technologies, GeoConsulting offers the our unique line of Robertson geoscience consulting services and multi-client products, including a full range of geological, petroleum engineering and economic disciplines. It also contains NPA Satellite Mapping and the global training services relating to GeoConsulting.

In 2014, we expect to extend cross-divisional strengths within our organization and to leverage our relationships with external partners such as Baker Hughes International in key and growing business sectors such as shale in North America and the Middle East.

We also intend to set up additional targeted partnerships through joint ventures in order to address specific market segments or to gain privileged access to high-potential local geographical markets. We established a joint venture with Gardline in the marine market segment in May 2010 and a joint venture with Petrovietnam Technical Services Corporation (PTSC) for the Vietnamese offshore market in March 2012 (announced in December 2010). In early 2013, we created Seabed Geosolutions BV (a joint venture owned 60% by Fugro and 40% by CGG), a world-leader in the shallow water and ocean bottom systems market.

### ***Develop technological synergies for products and capitalize on new generation equipment***

We believe Sercel is the leading manufacturer of land, marine and subsea geophysical equipment. We plan to continue developing synergies among the technologies available to Sercel and to capitalize fully on our position as a market leader. Through our research and development, we seek to improve existing products and maintain an active new product development program in all segments of the geophysical equipment market (land, marine and ocean-bottom).

### ***Develop and utilize innovative technology***

The significant technological developments in seismic services over the last decade have produced a marked change in the sector. The development of 4D and wide-azimuth techniques (providing time lapse views and enhanced illumination of the reservoir as well as improved image resolution) now allows operators to better locate and monitor reservoir performance. This possibility broadens the use of seismic techniques from pure exploration (early cycle) into a tool for reservoir development, management and production (late cycle). Importantly, these techniques require more vessel time than traditional data acquisition. For example, three to six times more vessel time is required to shoot wide-azimuth data than is required for traditional 3D.

Conventional marine streamer acquisition lacks sufficient signal-to-noise ratios in the 2-7 Hz bandwidth due to streamer depth, streamer tow noise, source array configuration, source depth and source bubble. BroadSeis, a variable-depth streamer broadband solution, improves considerably the quality of data acquired by streamers by widening the range of recorded frequencies. BroadSeis relies on the combination of three differentiation factors developed by us: (i) the Sercel solid streamer, the quietest in the market; (ii) an original acquisition set-up based on a specific positioning of streamers at variable depth in water; and (iii) innovative processing algorithms that are adapted to this specific acquisition configuration. Patent applications have been filed for the different components to ensure we maintain exclusive rights over this technique. BroadSeis was launched in 2010. Since its introduction, more than 100 acquisitions have been carried out, most of them in association with customers, which we believe indicates a real interest for this new technology. The commercialization phase of BroadSeis enabled us to quickly expand the use of this process, a key differentiation factor for our marine acquisition activities starting in 2012. BroadSource, the broadband marine seismic source, launched in November 2012, should reinforce the benefits of BroadSeis to deliver the ultimate in high-resolution, broad-bandwidth, ghost-free seismic data, achieving a bandwidth of 2-200Hz.

We believe that growth in demand for geophysical services will continue to be driven in part by the development of new technologies. The industry is increasingly demanding clearer seismic imaging and better

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visibility, particularly underneath salt layers. We expect multi-azimuth, wide azimuth, multi-component (3C/4C) surveys and time-lapse (4D) surveys to become increasingly important for new production-related applications, particularly in the marine sector, and expect specialized recording equipment for difficult terrain to become more important in land seismic data acquisition, particularly in transition zones, shallow water and arctic areas. We believe that to remain competitive, geophysical services companies will need to combine advanced data acquisition technology with consistently improving processing capacity in order to further reduce delivery times for seismic services.

Our strategy is to continue our high level of investment in research and development to reinforce our technological leadership. We also intend to take advantage of our full range of integrated geoscience services to enhance our position as a market leader in:

land seismic data acquisition systems and know-how;

innovative marine acquisition systems and services;

seismic imaging and reservoir services; and

manufacturing of land, marine and subsea data acquisition equipment.

### ***Emphasize client service***

We believe it is important to operate in close proximity to our clients to develop a better understanding of their individual needs and to add measurable value to their business processes. We respond to these needs by creating new products or product enhancements that improve the quality of data and reduce the data delivery time to clients. We believe that our regional multi-client and dedicated data processing centers in our clients' offices provide us with an advantage in identifying contract opportunities, optimizing service to clients and developing products responsive to new market demands, such as seismic techniques applied to reservoir management. We believe that we are well positioned to benefit from the industry trend towards increased outsourcing. This trend is leading oil and gas companies to place greater emphasis on relationships and service quality (including health, safety and protection of the environment) in their selection of third party service providers, including geophysical services providers.

### ***Provide integrated services***

We are committed to providing clients with a full array of seismic data services, from acquisition and processing to data interpretation and management. We believe that integration of compatible technology and equipment increases the accuracy of data acquisition and processing, enhances the quality of our client service and thereby improves productivity in oil and gas exploration and production. Our clients increasingly seek integrated solutions to better evaluate known reserves and improve the ratio of recoverable hydrocarbons from producing fields. We are continuing to develop our ability to provide geosciences solutions through a combination of various exploration and production services, including technical data management, reservoir characterization and interpretation of well information.

### ***Develop well-positioned data libraries***

We will continue to develop large multi-client libraries in key basins throughout the world where the industry focuses its exploration budgets. We intend to take advantage of our recent vintage, well-positioned seismic data libraries and will capitalize on our strong experience in wide-azimuth technology. For instance in the Gulf of Mexico, the industry's growing interest in wide-azimuth technology to explore complex geological environments has translated into high pre-funding levels for our Walker Ridge, Green Canyon, Garden Banks and Three Corners surveys. In 2012, we launched our first StagSeis multi-client survey, our new marine acquisition solution that provides full wide-azimuth coverage and unrivalled long offsets, designed to illuminate complex subsalt geologies. We extended this program in 2013 and will complete the acquisition of the third and



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final StagSeis survey in 2014. Similarly, we will continue to further expand the footprint of our multi-client library with the introduction of our new BroadSeis acquisition technology as we did in 2012 in Brazil and in the North Sea.

Onshore, our land library offers additional potential in North America, particularly in the shale gas plays where we completed a significant onshore program in the Marcellus basin in 2013. We plan to use this existing multi-client onshore footprint to build dedicated commercial offers aimed at improving the productivity of shale market players, including through our cooperation agreement with Baker Hughes International.

### ***Develop reservoir applications***

While seismic data was historically used primarily by oil and gas companies for exploration purposes, it has become a recognized tool for field development and reservoir management. We are progressively extending our core business towards compiling and analyzing seismic data of existing reservoirs in response to this trend. Through high-resolution images and our expertise in 4D seismic and permanent monitoring, we aim to assist hydrocarbon producers in better characterizing and predicting the static properties and dynamic behavior of their reservoirs.

Following our acquisition of Fugro's Geoscience Division, we are now organized in three segments, including the Geology, Geophysics and Reservoir segment, which is fully dedicated to the development of reservoir software, services and applications. Through GeoSoftware, we intend to further improve our products and services, provide our customers with a better understanding of their reservoirs and deliver unsurpassed expertise to optimize our customers' decision-making. Through GeoConsulting, we intend to further enhance our geological and geophysical multi-client products and reports and expand our high-end consulting services across the Exploration & Production value chain.

### **Industry conditions**

Both oil and gas market operators and major consumer countries are becoming increasingly aware of the growing imbalance between hydrocarbon supply and demand. This was reflected in a very significant and continuous increase in energy prices, coupled with a widely held conviction that there would be a need to produce oil and gas in a sustained manner over the long term in order to meet global demand. Rates at which oil reserves are being replenished have fallen short of being able to replace, year on year, the quantities of sub-surface hydrocarbons extracted and consumed or to compensate for the natural depletion of reserves in the ground. The need to discover new reserves and to seek to recover the quantities of oil and gas in place as carefully as possible led, except in 2009, to several years of high levels of investment in Exploration & Production and, by extension, to favorable long-term prospects for the geophysics market.

Since 2010, Exploration & Production investments have grown annually on a double-digit basis, despite the manifestation over the period of certain major risks to which these activities are exposed, in particular:

the technological risk associated with the Deepwater Horizon platform accident in the Gulf of Mexico;

the geopolitical risk associated with the Arab spring uprising in North Africa in 2011, and the subsequent political changes in Libya and Egypt;

risks related the rapid growth of unconventional shale hydrocarbons production in North America since 2011, which significantly modifies the worldwide equation of supply and demand given the current weight of the North American consumption;

general economic risks associated with slower growth in 2013 of certain key consumer countries as Brazil and China.

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2013 has been a contrasted year with growth in both the oil services segment and, consequently, the seismic sector, which then significantly slowed down during the year mostly because major oil companies decided not to pursue certain exploration-production projects and more generally to cut investments in Exploration & Production to improve their cash generation on a short-term basis. This trend must be assessed more generally in an environment where exploration-production projects have become more costly because of their complexity, while the oil and gas prices have remained relatively stable and the oil and gas companies are under continuous pressure to keep a sustained level of dividends for their shareholders.

This environment should continue to prevail in 2014 in a seismic market that should be stable, with a slight increase of Exploration & Production expenses by oil companies over the year.

Longer term, we believe that the outlook for a fully integrated geoscience company is fundamentally positive for a number of reasons:

First, oil and gas companies (including both international and national oil companies) and the large oil and gas consuming nations have perceived a growing and potentially lasting imbalance between reserves and future demand for hydrocarbons. A rapid rise in world consumption requirements, particularly in China and India, has resulted in a growth in demand for hydrocarbons that is higher than anticipated, despite the recent economic downturn. In response to this growth, we expect oil and gas companies to continue to increase their Exploration & Production investments in order to improve existing reservoirs and regularly replace reserves.

Client demand is changing as clients use geophysical data in new ways. The geological and geophysical challenges they face require new Geoscience solutions. From the very early exploration phase to the optimization of existing reservoirs, and throughout the entire development and production cycle, the demand for improved understanding of complex subsurface structure is increasing. This requires higher technology content, higher resolution, better illumination, and overall better imaging. In such a market environment, the CGG Group, with its assets, expertise, people and track record, is now firmly established on the three solid technological pillars represented by its Equipment, Acquisition and GGR (Geology, Geophysics & Reservoir) divisions. We benefit from the unique scope of our Geoscience activities, the unrivalled expertise of our imaging teams, our modern worldwide fleet of recently built, high-capacity vessels, the cutting-edge leadership of Sercel on the Equipment market, and our strong commercial positions in key multi-client areas. We believe we are therefore ideally positioned to capitalize on our unique integrated portfolio and to meet our customers' needs for innovative products and services and for global solutions, as achieved recently with BroadSeis and StagSeis and now with Sercel's 508XT land acquisition system.

Each year, three to four million barrels of new oil have to be found in deeper and more complex geology in order to offset the declining rates of the existing reserves. Gas production from shale rocks, where seismic studies are used to enhance the yield, has developed remarkably well in North America, and may expand to other continents. We expect these fundamental trends to continue to drive increased demand for high-end seismic equipment and services in the medium-term. We believe that we are in a strong position to benefit from these long term trends.

### **History and development of the Company**

CGG was established on July 23, 1931 under the name *Compagnie Générale de Géophysique*, to develop and market geophysical techniques for appraising underground geological resources. Since that time, CGG gradually specialized in seismic techniques adapted to oil and gas exploration and production, while continuing to develop a broad range of other geophysical and geological activities. In 2007, CGG acquired Veritas DGC Inc. and was renamed *Compagnie Générale de Géophysique Veritas*. In 2013, CGG acquired Fugro's Geoscience Division and changed its name to *CGG*. CGG is a société anonyme incorporated under the laws of the Republic of France and operating under the French Code de commerce, with a duration until 2030.

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Over the course of the last three years, we have completed various acquisitions and disposals which are described under Item 5: Operating and Financial Review and Prospects Factors Affecting our Results of Operations Acquisitions and Disposals included elsewhere in this annual report. Our historical and ongoing capital expenditures and sales of tangible assets are described under Item 5: Operating and Financial Review and Prospects Liquidity and Capital Resources included elsewhere in the annual report.

### **Business overview**

The following is an overview of the business activities of our Equipment, Acquisition and Geology, Geophysics and Reservoir (GGR) business segments. Our views regarding the state of the market in 2013 and the outlook for 2014 are forward-looking statements, based upon information available to us on the date of this annual report and are subject to risks and uncertainties that may change at any time.

### **Operating revenues data**

#### *Revenues by activity*

The following table sets forth our consolidated operating revenues by activity in millions of dollars and the total percentage of consolidated operating revenues represented thereby, for the periods indicated:

	Year ended December 31,		
	2013	2012 (restated) (MUS\$)	2011 (restated)
Marine Acquisition	1,786	1,310	1,073
Land and Airborne Acquisition	440	568	445
<b>Acquisition Division Production</b>	<b>2,226</b>	<b>1,878</b>	<b>1,518</b>
Multi-client, Basin data and Data Management	585	472	497
Imaging and Reservoir	711	478	442
<b>Geology, Geophysics &amp; Reservoir Division Revenues</b>	<b>1,296</b>	<b>950</b>	<b>939</b>
<b>Equipment Division Production</b>	<b>1,045</b>	<b>1,204</b>	<b>1,142</b>
Eliminated production and others	(801)	(621)	(418)
<b>Total Consolidated</b>	<b>3,766</b>	<b>3,411</b>	<b>3,181</b>

#### *Revenues by region (by location of customer)*

The following table sets forth our consolidated operating revenues by region in millions of dollars and the total percentage of consolidated operating revenues represented thereby, for the periods indicated:

	Year ended December 31,					
	2013		2012 (restated)		2011 (restated)	
	MUS\$	%	MUS\$	%	MUS\$	%
North America	872	23%	730	21%	705	22%
Central and South Americas	310	8%	500	15%	641	20%
Europe Africa and Middle East	1,666	45%	1,246	37%	1,134	36%
Asia Pacific	918	24%	935	27%	701	22%
<b>Total Consolidated</b>	<b>3,766</b>	<b>100%</b>	<b>3,411</b>	<b>100%</b>	<b>3,181</b>	<b>100%</b>

The Group's clients can be broadly categorized as national oil companies, international oil companies (the Majors) and independent companies. In 2013, our top two clients represented respectively 5.1% and 3.9% of consolidated revenues, respectively.



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Figures relating to the geophysical market and to the competitive positioning of the Group's Equipment, Acquisition and GGR segments or the activities of these segments provided in this section have been derived from internal Group data.

### ***Acquisition Division***

Our Acquisition Division encompasses our geophysical acquisition services offering, including land, marine, airborne and seabed, being operated either directly or through joint ventures. Our worldwide crews operate in all environments. In land and marine environments, they use the latest geophysical equipment manufactured by Sercel.

Total production of the Acquisition Division (including internal and external revenues) amounted to US\$2,226 million in 2013, up 19% compared to 2012 (our 2012 revenues did not include the Airborne business, acquired on September 2, 2013, or the vessels acquired from Fugro). The external revenues of the Acquisition Division amounted to US\$1,636 million, representing 43% of our consolidated revenue in 2013.

### ***Marine Acquisition Business Line***

#### ***Overview***

With a fleet of 21 seismic vessels at the end of 2013, we provide a complete range of marine seismic 2D and 3D services, focusing mainly on the Gulf of Mexico, the North Sea, West Africa and Brazil, as well as the Asia Pacific region. We also deliver marine seismic contract data acquisition in frontier areas and are a pioneer in the Arctic basin, offshore Eastern Africa and in the Black Sea. CGG provides both marine seismic contract data acquisition and multi-client surveys. Since the acquisition of Fugro's geoscience activities, we also provide in-house acquisition and data processing of marine magnetic, gravity and bathymetry in conjunction with seismic surveys or on a stand-alone basis.

#### ***Activity description***

Marine seismic surveys are conducted through the deployment of submersible cables (streamers) and acoustic sources (airguns) from marine vessels. These streamers are up to 12 kilometers long and carry hydrophone groups normally spaced 12.5 meters apart along the length of the streamer. The recording capacity of a vessel is dependent upon the number of streamers it tows and the number of acoustic sources it carries, as well as the configuration of its data recording system. By increasing the number of streamers and acoustic sources used, a vessel can perform surveys more rapidly and efficiently and acquire better resolution data.

In Marine acquisition, as in Land and Airborne acquisition, we operate under two commercial business models:

The first business model consists of working on an exclusive contractual basis with the client. The contract generally stipulates that we shall be paid according to a fixed rate, such as a daily fee or a fee per square kilometer acquired. The contract may protect us against operational elements beyond our control, such as bad weather or interference with other activities carried out in the oil field. The client owns the acquired data and pays us on the agreed basis. Our operating income from this activity is the difference between the cost to us and the final price of the survey.

The second business model consists of a multi-client model, with multiple clients prefunding the acquisition. In this case, the surveying and recording activities are performed by the Acquisition Division as an internal service for the Multi-Client & New Ventures Business Line, which among other things develops and sells a library of geophysical surveys. We remain the owner of the data thus acquired. This activity was fully integrated into our GGR Division in 2013. See - Geology, Geophysics & Reservoir ( GGR ) Division .

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### ***Group's fleet of seismic vessels***

On December 31, 2013, our fleet consisted of 21 vessels, including 15 3D high capacity vessels (12 or more streamers), 4 mid-capacity 3D vessels (8-12 streamers) and 2 3D/2D vessels of lower capacity.

Each of the *Oceanic Sirius*, *Oceanic Vega*, *Geo Coral*, *Geo Caspian*, *Oceanic Endeavour*, *CGG Alizé*, *Geo Caribbean*, *Oceanic Phoenix*, *Oceanic Champion*, *Viking Vision*, *Geo Celtic* and *Oceanic Challenger* can notably already deploy more than 12 streamers simultaneously.

The fleet was increased on January 31, 2013 with the acquisition of *Geo Caspian*, *Geo Caribbean*, *Geo Celtic*, *Geo Coral*, *Geo Atlantic* and *Geo Barents* from Fugro Geoteam, with the expectation that we will keep the first four C-Class vessels, which would contribute to the rejuvenation of our fleet, whereas the two remaining vessels would be returned to their owner at the end of their current charter period. As a result, the *GeoAtlantic* was returned to her owner Rieber Shipping on October 30, 2013.

The *Geo Caribbean* exemplified our technological ability when it acquired the widest spread in the industry towing 8 x 160 m x 12 km in the Gulf of Mexico.

All 3D high capacity vessels are equipped with Sentinel solid streamers, which provide several advantages over liquid streamers, such as acquiring surveys in tougher sea conditions, improving the frequency content and signal-to-noise ratio of the recorded data and minimizing environmental impacts. All of our high capacity vessels can deploy BroadSeis, our broadband marine solution, which combines industry-leading equipment, unique variable depth streamer acquisition techniques and proprietary deghosting and imaging technology. At the end of 2013, half of our fleet was also capable of deploying BroadSource, which, combined with BroadSeis provides the ultimate in broad-bandwidth, ghost-free seismic data, achieving a bandwidth of 2 – 200 Hz.

In order to rapidly refocus on an optimal 3D fleet in the current market, we decided to reduce the number of external source vessels and to use certain of our 2D and 3D vessels as source vessels for Wide Azimuth surveys. As a result:

The *Bergen Surveyor*, formerly used as a source vessel, was returned to her owner on October 17, 2013;

The *Geo Barents* and the *Pacific Finder* have been used as source vessels since October 2013;

The *Vantage*, the *Geowave Voyager* and the *Viking* have also been used as source vessels since December 2013.

In 2013, Bourbon Offshore delivered the first three purpose built support vessels from its six support vessels fleet (support vessels provide seismic vessels with the requisite ancillary services including refueling, crew change, food and equipment delivery, storage, assistance, and support during in-sea maintenance operations). These three vessels (*Bourbon Petrel*, *Bourbon Fulmar* and *Bourbon Gannet*) have been deployed across our fleet to replace less performing support vessels.

### ***Maritime management of the operated fleet***

In the framework of our Marine performance plan and our objective of reducing the number of ship managers, we signed a joint venture agreement on April 16, 2013 with Louis Dreyfus Armateurs (LDA), the French ship-owner, creating a single company to manage four of our 3D high capacity vessels, including the *CGG Alizé*, *Oceanic Challenger*, *Oceanic Phoenix* and *Symphony*. This joint venture, named GeofieLD Ship Management Services SAS, is based in Suresnes (France) and is owned at 50% by LDA and 50% by us. This joint venture is now operating, and manages the shipmanagement agreements for the four ships. The incorporation of this joint venture was accompanied by the establishment of a team of specialists fully dedicated to fleet maritime management in order to improve our fleet's performance. This joint venture follows a similar agreement entered into with Eidesvik in 2011.

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### Ownership status of the operated fleet

We own seven vessels (*Oceanic Challenger*, *Geowave Voyager*, *Symphony*, *Geo Coral*, *Geo Caribbean*, *Geo Celtic*, *Princess*), co-own three ships (*CGG Alizé*, *Oceanic Sirius* and *Oceanic Vega*) and operate the rest of our fleet under charter agreements. In November 2013, we entered into an agreement with Louis Dreyfus Armateurs (LDA) to execute the purchase option on the shares held by LDA in Geomar, which owns *CGG Alizé* vessel. This purchase option will be effective on April 1, 2014.

The following table provides certain information concerning the seismic vessels operated by us as of December 31, 2013.

Vessel name	Year built	Year upgraded	Year joined fleet	Time charter / Bareboat expiry	Extension options <sup>(1)</sup>	2D/3D	Maximum no. of streamers <sup>(2)</sup>	Vessel length (m)
<i>CGG Alizé</i>	1999	n.a.	1999	March 2014	n.a.	3D	16	101
<i>Oceanic Challenger</i>	2000	2005	2005	Owned	n.a.	3D	12	91
<i>Princess</i>	1986	2001	2005	Owned	n.a.	2D	3	76
<i>Symphony</i>	1988	1999	2001	Owned	n.a.	3D	12	121
<i>Viking I</i>	1998	2006	2007	December 2015	2 × 3 years + 1 × 17 months	3D	10	93
<i>Viking II</i> <sup>(3)</sup>	1999	n.a.	2007	May 2015	n.a.	3D	8	93
<i>Viking Vanquish</i> <sup>(3)</sup>	1999	2007	2007	November 2020	n.a.	3D	12	93
<i>Vantage</i> <sup>(3)</sup>	2002	n.a.	2007	June 2016	n.a.	3D	10	93
<i>Viking Vision</i>	1993	2007	2007	July 2017	2 × 5 years	3D	14	105
<i>Oceanic Champion</i>	1994	2012	2009	June 2020	n.a.	3D	14	107
<i>Oceanic Phoenix</i>	2000	2011	2009	March 2019	10 × 1 year	3D	14	101
<i>Geowave Voyager</i>	2005	2009	2009	Owned	n.a.	3D	12	83
<i>Oceanic Endeavour</i>	2007	2011	2009	April 2018	2 × 5 years	3D	16	92
<i>Oceanic Vega</i>	2010	n.a.	2010	July 2022	4 × 5 years	3D	20	106
<i>Pacific Finder</i> <sup>(3)</sup>	2011	n.a.	2011	March 2019	1 × 8 years	3D	4	68
<i>Oceanic Sirius</i>	2011	n.a.	2011	October 2023	4 × 5 years	3D	20	106
<i>Geo Caspian</i> <sup>(3)</sup>	2010	n.a.	2013	February 2017	4 × 2 years	3D	16	108
<i>Geo Coral</i>	2010	n.a.	2013	Owned	n.a.	3D	16	108
<i>Geo Celtic</i>	2007	n.a.	2013	Owned	n.a.	3D	12	101
<i>Geo Caribbean</i>	2008	n.a.	2013	Owned	n.a.	3D	14	101
<i>Geo Barents</i>	2007	n.a.	2013	July 2014	n.a.	3D	8	77

<sup>(1)</sup> Number of years.

<sup>(2)</sup> Tow points.

<sup>(3)</sup> Includes a purchase option.

The *CGG Alizé*, *Pacific Finder*, *Geo Barents* and *Geo Caspian* are the only vessels under time charter. The other vessels are either fully owned or under bareboat charter. Among those under bareboat charter, the *Oceanic Sirius* and the *Oceanic Vega* are co-owned within Oceanic Seismic Vessels AS and Eidesvik Seismic Vessels AS, respectively.

### Competition and market

Five companies – CGG, PGS, WesternGeco, Polarcus and Dolphin – comprised more than 80% of the 3D marine market at the end of 2013.

The arrival of new builds into the market continued at a slower rate than in previous years. As a result, the balance between supply and demand, in terms of capacity, was maintained as some retirements offset the vessels entering the market, keeping the total number of vessels equipped with more than 8 streamers at 62 at the end of





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2013. Positive long-term market fundamentals remain as demand for technology continues to increase. This is highlighted by sustained activity in traditional basins and new emerging basins ( frontier areas ) including the Arctic, as well as, increased demand for Broadband, Wide-Azimuth ( WAZ ), and 4D surveys. This led to high level of activity during the first half of 2013. Uncertainties about future hydrocarbon prices and about short term budgetary constraints led clients to reduce their needs in terms of marine acquisition in the second half of 2013 and/or to delay some significant projects. This resulted in a lower use of capacity during the fourth quarter of 2013. However, the average price in 2013 remained at the same level as in 2012.

Total marine seismic production (both contract and multi-client surveys) amounted to US\$1,786 million in 2013, representing 80% of the Acquisition Division production. It increased 37% compared to 2012 (mostly due to the acquisition of Fugro Geoteam AS in 2013).

72% of our 3D fleet s utilization was dedicated to exclusive marine acquisition contracts. 28% was dedicated to acquiring multi-client surveys, mainly in historical core areas (Gulf of Mexico, Brazil, the North Sea and Angola) and in a new key position over the West Shelf of Australia.

### ***2014 outlook***

In 2013, we increased our market share in marine seismic acquisition through the acquisition of Fugro s Geoteam vessels, with the aim of rejuvenating our fleet. Our ability to seamlessly deploy BroadSeis technology in the newly acquired vessels, together with the success of BroadSource (broadband marine source) offer, reinforced our leadership position on the Broadband segment of the market. As an illustration, we achieved the milestone of 120,000 square kilometers of BroadSeis acquisition in 2013.

Looking ahead to 2016, the roadmap of our Marine Acquisition business is to resize our fleet as necessary in order to remain a worldwide player and to preferentially operate in the high-technology market segment. This reduction in the size of the operated fleet will translate into a significant reduction in operational fixed costs and industrial investments. This should, as a result, reduce the volatility of the financial performance of Marine acquisition from one quarter to the next within a given year.

In parallel, in 2014, we intend to focus on:

Pursuing the equipment standardization for the entire fleet with BroadSource technology;

Further reducing the number of maritime maintenance contractors;

The delivery by Bourbon of the last support vessels from their fleet, to assist our seismic operations;

Keeping maritime and seismic downtime at low levels; and

Increasing the vessel efficiency through various cost efficiency initiatives.

*Land and Airborne Acquisition Business Lines*

### ***Overview***

Land acquisition is principally focused on the acquisition and onsite processing of seismic data acquired on land areas. We are one of the main land seismic acquisition contractors operating worldwide, especially in North America and the Middle East, and particularly in areas requiring specific technologies, Health, Safety and Environment ( HSE ) excellence and operational expertise. Our operation in Artic areas, transition zones and high-resolution crews market in North Africa and the Middle East are good examples of our positioning. We now intend to focus on technological differentiation.

Airborne acquisition is principally focused on the acquisition, processing and interpretation of airborne geophysical data on land or offshore, all over the world. We are the largest airborne acquisition contractor,



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operating worldwide and offering a diverse portfolio of airborne geophysical technologies, with particular emphasis and expertise in electromagnetics and gravity. Our activities are conducted out of operational centers located in Canada, Brazil, South Africa and Australia, and are based on a foundation of HSE excellence.

Land and airborne surveys are performed through exclusive contract activity or non-exclusive multi-client activity.

In 2013, we operated an average of 22 active land crews performing 3D and 2D seismic surveys (19 crews dedicated to exclusive contract surveys and three dedicated to non-exclusive surveys), and a fleet of 29 airplanes since the integration of airborne activities on September 2, 2013. The description of 2013 airborne activities below reflects only the period of September to December.

### ***Activity description***

Land operations employ both surveying and recording crews. Surveying crews lay out the lines to be recorded and mark the sites for shot-hole placement or recording equipment location (except for stackless operations where the source locations are indicated through integrated GPS capabilities rather than on location by field personnel). Recording crews produce acoustic impulses and record the seismic signals via geophones or hydrophones. The acoustic sources used are mainly vibrators onshore, and air guns or explosives in transition areas. On a land survey where explosives are used as the acoustic source, the recording crew is supported by several drill crews. Drill crews operate ahead of the recording crew and bore shallow holes for explosive charges which, when detonated by the recording crew, produce the necessary acoustic impulse.

Land seismic crews are equipped with advanced equipment and software used for each step of the acquisition process, including Sercel 428XL seismic data recorders, Sercel Nomad 65 and Nomad 90 vibrators, Sercel VE464 vibrator electronic control system used to synchronize and verify the emission of acoustical waves by vibrators, DSU3 Sercel digital 3 components sensors, and Sercel Unite onshore wireless acquisition systems. We also deploy patented high-end vibroseis technologies such as HPVA and V1 which seek to increase significantly the productivity of a crew, or EmphaSeis which seeks to enhance the resolution of the data through broadening the frequency content of the signal emitted. By combining specific acquisition geometries and processing technologies as well as on-site processing software for acquired data, we have a unique capability to offer fully integrated solutions, improving both data quality and turn-around time, thus accelerating the exploration cycle.

Technology and experience enable our Land Business Line to offer high quality, fully integrated land seismic services. We have pioneered the real-time positioning of geophones and seismic sources, quality control of positioning during land surveys, simultaneous shooting technologies and on-site processing, which together increase the accuracy and efficiency of such surveys.

The difficulty of access to survey sites is a major factor in determining the number of personnel required to carry out a survey. A full crew for a land or transition zone survey is highly variable and may range from a total of less than one hundred to a few thousand members (principally composed of local employees in the latter case), and the monthly cost of a survey can range from several hundred thousand to several million dollars per month, depending on the size of the team and the type and difficulty of the survey.

We work closely with clients to plan surveys in accordance with their technical specifications while optimizing the resources required. The contracts concluded to perform such surveys are awarded based on competitive bids or directly negotiated agreements with the clients.

In Saudi Arabia, our land seismic acquisition activities were conducted up to December 31, 2013 through Arabian Geophysical & Surveying Co. ( Argas ), a joint venture owned 49% by us and 51% by TAQA, our local partner. Operations in the Middle East (outside Saudi Arabia) are conducted through Ardiseis FZCO, a joint venture owned 51% by us and 49% by TAQA. On December 31, 2013, we agreed with TAQA to combine at a future date all Middle East land activities under a single joint venture, which will be 51% owned by TAQA.

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Since February 2013, seabed acquisitions, previously part of the Land acquisition business line, are now operated through Seabed Geosolutions BV, a joint venture owned 60% by Fugro and 40% by us.

Airborne activity encompasses the collection, processing and interpretation of data related to the earth's surface and the soils and rocks beneath, and provides advice based on the results to clients in the mineral, oil and gas, governmental, engineering and environmental management sectors. We also offer advanced geophysical data processing, interpretation and consulting services in order to provide fully integrated services for our natural resource sector clients.

These services are offered on a global basis. Local knowledge, regulatory understanding, and proximity to the data collection sites are important factors in efficient aircraft operations, so the business line has operational units with complete aviation management facilities and expertise in Canada, Brazil, South Africa, and Australia, supporting data collection activities in their regions. Professional project management standards, ISO 9001:2000 certified quality management system standards and OHSAS 18001 safety management system standards form the operational basis for Airborne services.

We acquire electromagnetic, magnetic, radiometric and gravity data using fixed-wing airplanes and helicopter platforms. We own and operate a fleet of 29 airplanes that have been modified with integrated geophysical measurement systems incorporating elements of internal design and manufacture. Helicopter projects are supported using subcontracted or chartered helicopters, as the geophysical instrument systems designed for use on helicopters can be installed without significant modifications to the aircraft. The Airborne Business Line employs approximately 380 staff world-wide, many of whom are highly experienced geophysicists, geologists, electronics engineers or technicians, field survey operators and aviation professionals.

The geophysical measurement system technology is an important differentiator for some of the airborne geophysical techniques. We maintain a significant commitment to a number of major research and development projects, with particular focus and emphasis on electromagnetic and gravity technologies, through which we continue to develop and improve measurement systems to provide competitive advantage.

In order to ensure our clients are able to extract maximum value from the geophysical measurements, Airborne Business Line provides advanced data processing and interpretation services routinely as part of the contracted activities.

In Land and Airborne acquisition, we operate under two business models:

The first business model consists of working on an exclusive contractual basis with the client. The contract usually stipulates that we will receive a fixed remuneration per acquired kilometer or square kilometer, on client specifications. The client owns the acquired data and pays us on the agreed basis. Our operating income is the difference between the cost to us and the final price of the survey.

The second business model consists of operating under a multi-client model, with multiple clients prefunding the acquisition.

In this case, the surveying and recording activities are performed by the Acquisition Division as an internal service for the Multi-Client & New Ventures Business Line, which among other things develops and sells a library of geophysical surveys. We remain the owner of the data thus acquired. This activity was fully integrated into our GGR Division in 2013. See *Geology, Geophysics & Reservoir (GGR) Division*.

### ***Competition and market***

The land acquisition market is fragmented and extremely competitive with the presence of both international and local players. In addition to CGG, the other significant service providers in the land seismic market are WesternGeco, Global Geophysical Services, BGP, and Geokinetics, and for the shallow water and ocean bottom surveys segments, Seabed Geosolutions BV, our joint venture with Fugro. We have chosen a selective position in the high end of the market, and, when the conditions are appropriate, in partnerships with local players.

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In this market, we believe that technology, quality of the crews, services provided and prices are the main differentiators, while the relationship with local suppliers and the expertise of personnel in complex areas are additional advantages.

Our offerings are based on a technology and geographical focus with high-end activities often operated through local partnerships. We have developed a unique expertise in North America's arctic regions (Canada and Alaska) and in the Middle-Eastern and North African deserts.

Those regions hold a strong potential for growth, driven by shale gas, shale oil and heavy oil market trends in North America and the demand for high-end seismic and high-channel count crews in the Middle East and North Africa.

The airborne acquisition market is fragmented and extremely competitive with the presence of a handful of international players, as well as many smaller and regionally focused competitors. In general, primarily due to technical specialization, most competitors have their primary focus and activity in either the mining, oil & gas, or government sectors, but not in all. CGG is the only market player with a strong position in all major market sectors and geographic regions. The diversified market sector and geographic region presence lessens the impact of the historically significant fluctuations in airborne market activity by sector and region.

In the mining and oil & gas sectors, technology, service capability and prices are the main differentiators. For governmental sector work, price and capacity are the main differentiators on projects which are typically large in size and require commoditized technologies.

In 2013, Land activities were affected by several key factors:

After a strong winter season in the beginning of 2013, the North American market experienced a slowdown that impacted our activity levels;

Very bad weather conditions in Oman (including flooding, storms, etc);

In North Africa, despite resilient activity levels, operations were severely impacted by the consequences of the In Amenas (Algeria) terrorist attack and social unrest in the region; and

In the Middle East, most of the targeted high-channel count crews were delayed while the unstable political situation in Egypt disrupted our local activity.

Activities for Airborne in the mining sector were limited in 2013, due to low levels of overall expenditure on exploration by both smaller mining companies, who are struggling with an inability to raise capital, and major mining companies, who have been reducing or deferring capital investments and limiting their exploration activities. The oil and gas sector provided a moderate level of airborne activity on a regional basis, with frontier exploration plays in Africa and the Australasia region providing the most significant opportunities. Governmental sector activities for airborne were significant in South America, with low levels elsewhere.

Total Land and Airborne production (both contract and multi-client surveys) accounted for US\$440 million in 2013, representing 20% of Acquisition operating revenues.

### ***2014 outlook***

Our Land Acquisition services occupy a good position in the high-end market and in active regions through strong local partnerships. Our strategy in Land Acquisition remains focused on differentiation and operational excellence rather than market share, avoiding as much as possible commoditized markets. We intend to further reinforce this focus on differentiation and partnerships in 2014.

Our strategy for the Land Acquisition Business Line is therefore to:

focus its direct presence in certain geographic market niches and core markets, where we have a competitive advantage;

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serve the increasing demand for high-resolution land seismic acquisition and high-end technology specifically visible in the Middle East, through expanded use of UltraSeis broadband solutions;

reinforce and accelerate the partnership approach, especially in high-end markets, where technology and expertise, combined with the footprint of strong local partners, is seen as a winning strategy, such as in the Middle East with TAQA;

accelerate, after being awarded the first commercial project in Canada in 2013, the development of our permanent active monitoring solutions (SeisMovie, our patented buried source / receiver technology) allowing oil companies to efficiently and continuously monitor steam injection to optimize production of heavy oil plays; and

continue to introduce new technologies that allow efficient high resolution acquisition and that leverage the full geoscience portfolio of the Company.

In Airborne Acquisition, we are geographically and technologically well placed, and benefit from our strong presence in the mining, oil and gas and government sectors, positioned to take advantage of any regional opportunities that may arise. Mining sector activity levels are expected to remain relatively low and projects will be subject to price pressure when technological capabilities do not provide differentiation. We believe that our diverse portfolio of electromagnetic measurement systems on fixed-wing and helicopter platforms will allow for differentiation opportunities in some exploration plays.

Airborne activities in the oil and gas sector are expected to be primarily focused on areas of frontier exploration. Our ability to offer both low and high resolution gravity measurement system technologies will allow us to present a range of options on projects, allowing clients to determine the most cost effective technique appropriate for the geological model in their exploration play.

Our Airborne Business Line strategy is focused on differentiation and exploiting advantages of geographic and technological diversity. Areas of focus in 2014 will be to:

grow oil and gas sector revenue by leveraging the market presence of other business lines, offering a full spectrum of gravity technologies and providing interpretation services to ensure the geological utility of the results;

exploit differentiation opportunities offered by fixed-wing and helicopter electromagnetic measurement systems in the mining sector; and

commence a program of aircraft fleet rationalization, with the goal of reducing aircraft types in order to maximize efficiency and maintain consistent global standards.

### ***Geology, Geophysics & Reservoir ( GGR ) Division***

#### *Overview*

With its worldwide footprint, our GGR Division encompasses several activities ranging from developing and licensing multi-client seismic surveys, to processing seismic data, selling seismic data processing and reservoir characterization software (under the *geovation*, Hampson-Russell and Jason brands), providing geoscience and petroleum engineering consulting services, collecting, developing and licensing geological data (through Robertson) and providing data management services and software to our clients. With an extended scope of competencies, our GGR Division plays a key role in identifying and developing integrated services that we can offer to our clients as a full geoscience company.

On January 31, 2013, we acquired the Geoscience Division of Fugro, adding the Robertson, Jason and Data Management Services Business Lines to the GGR Division.

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Robertson is a leading geologic consulting company, and perhaps most well known throughout the petroleum and mineral exploration fields for its subscription library of databases and reports. Robertson s



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offering includes Plate Wizard, its plate tectonics modeling package, its widely used Tellus petroleum play and basin report database and CHEMSCAN and RoqSCAN, which provide mineralogical analyses through electron microscopy. Robertson operates globally in virtually every significant petroleum basin.

Jason is a geophysical software company well known for its advanced software suite that includes solutions for petrophysics, interpretation and analysis, model building, seismic inversion and geostatistical inversion. Clients using the Jason tools in an integrated fashion can perform seismic to simulation studies using accurate and predictive reservoir models. Jason also provides reservoir consultancy and software support through its globally distributed employee base.

Data Management Services ( DMS ) is a global business providing a continuum of products and services helping its clients maximize the value of their data. DMS offers individual and integrated services in all areas of data asset management and data transformation to clients in or associated with the petroleum business, such as agencies maintaining government petroleum data repositories.

During 2013, the GGR Division integrated these businesses into its offering, bringing them under CGG's systems of control and promoting them under the CGG brand. During the fourth quarter of 2013, the GGR Division began to reorganize in order to maximize efficiency and realize synergies offered by the new businesses, culminating in a new internal structure fully functioning on January 1, 2014. One facet of the reorganization is the combination, within the GeoConsulting and GeoSoftware Business Lines, of the Jason, Robertson and Hampson-Russell consulting operations and software licensing, enabling the GGR Division to bring employees with a wider range of skills to its clients.

After the reorganization, the GGR Division is composed of two Business Lines, the multi-client and new ventures business ( MCNV ) and the subsurface imaging and reservoir business ( SIR ).

### *General description of activities*

#### ***Multi-client and New Ventures ( MCNV )***

The MCNV Business Line utilizes the resources of our other business lines as well those of sub-contractors to acquire and process seismic data for itself and licenses that data to its clients.

The licenses are for lengthy terms, the maximum allowable under local law, typically ranging from 5 to 25 years. The licenses are non-transferable, and the data may not be shared with partners who do not own a license. Partnerships of various forms are a common arrangement in difficult and expensive exploration plays. The business model works well in venues where there is one or more of the following: significant levels of competition between oil companies exploring for assets; frequent lease turnover due to government lease rounds or lease trading activity between oil companies; frequent partnering between oil companies; and relatively high costs for seismic data.

The costs of the multi-client surveys are capitalized in our balance sheet. The surveys are then amortized as per our accounting policies in compliance with the industry practices and IFRS rules. Each survey is evaluated separately following the accounting principles described in the note 1 to our consolidated financial statements included in this report.

MCNV operates in marine and land environments on a worldwide basis. Our significant investments were made in the Gulf of Mexico, offshore Brazil, the North Sea and onshore North America. Maps and details of all surveys in our data library are available on our website. At the end of 2013, the library of 3D seismic surveys consisted of approximately 540,000 square kilometers of marine surveys, mainly in the Gulf of Mexico and Brazil, and 66,000 square kilometers of land data, all in North America with a recent focus on shale plays within the United States.

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### ***Subsurface Imaging and Reservoir ( SIR )***

SIR transforms marine and land seismic data acquired in the field into high quality images of the subsurface that can then be used by our clients in their efforts to find and produce oil and gas. These images provide a means to understand the structure of the subsurface as well as deduce various qualities of the rocks and fluids in those structures. SIR processes seismic data acquired by our land and marine seismic acquisition crews as well as seismic data acquired by non-affiliated third parties. In addition, SIR reprocesses previously processed data using new techniques to improve the quality of seismic images.

Process capabilities include 2D cross-sections and 3D volumes of data acquired; through repeated acquisition and processing of seismic data in the same location we are also able to deliver a time-lapse (4D) view of changes in the reservoir due to production. Along with conventional processing and reprocessing, SIR is involved in reservoir-applied geophysics, that is integrated reservoir studies from rock property description to full reservoir simulation.

SIR conducts its seismic imaging operations out of five large international centers located in Houston (USA), Massy (France), Crawley (England), Singapore and Calgary (Canada) and from 25 regional and local centers open to all clients. In addition to this open network, SIR operates 12 centers each dedicated to serving a specific client. This geographic spread of centers allows for a great amount of personal collaboration with our clients as we jointly seek to produce the best subsurface images.

Demand for our imaging services, especially our high end services, has grown consistently for many years. Our technology and expertise allow oil companies to explore complex structures such as the subsalt Gulf of Mexico. The industry-wide push toward high resolution acquisition, continuing exploration in regions where the targets are difficult to image, and SIR's continuing advancement of imaging technology should foster that growth trend.

In addition to subsurface imaging, SIR offers geophysical consulting services and software services. Using seismic data in conjunction with other information such as well logs, we are able to determine various rock and fluid properties and generally characterize oil and gas reservoirs for our clients. SIR teams of scientists are made available to perform geophysical and geological interpretations, assisting clients in creating subsurface models used in reservoir exploitation and optimization. SIR also sells seismic data processing software, under the *geovation* brand and sells software for reservoir characterization, interpretation, and modeling under the Hampson-Russell and Jason brands, allowing clients to produce these reservoir studies. Research and development within these commercialized technologies is continuously ongoing.

In addition to geophysical data, SIR, under the Robertson brand, develops and maintains large libraries of various types of geological data covering most geographic areas of interest to petroleum and mining companies. SIR licenses this data to clients, who generally use it in the early stages of their exploration efforts, often as a pre-cursor to seismic exploration. SIR geologists and other geo-professionals also engage in many types of proprietary studies for clients.

Finally, SIR is engaged in the business of providing data storage and retrieval solutions to oil companies and government agencies involved in the storage of oil related data. The explosion in volume of data of all types in recent years makes this activity an interesting area for future growth.

### ***Competition and market***

In the multi-client data arena, GGR's main competition comes from Schlumberger, PGS and TGS. Competition in the multi-client business is focused on location and availability of surveys, technology used in acquisition and processing, and to a lesser degree price.

A particularly noteworthy survey acquired in 2013 is the large IBALT survey designed to image difficult subsalt targets in the Garden Banks area of the Gulf of Mexico. With IBALT, MCNV has utilized StagSeis,

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where full azimuth, long offset, broadband acquisition and high end processing have been combined to create a survey with unparalleled sub-salt image quality. Due to client interest, a contiguous survey will be added to the original IBALT beginning in the first quarter of 2014. When complete, both surveys will cover approximately 20,000 square kilometers and numerous blocks to be auctioned in 2015, 2016 and 2017.

In 2013, MCNV completed the three-year acquisition of its Marcellus survey in Pennsylvania, which we believe to be the largest contiguous land survey ever acquired in the continental United States, covering 2,520 square kilometers. Sercel's UNITE system proved indispensable in acquiring data in the rugged terrain.

MCNV acquired two new BroadSeis / BroadSource surveys, totaling over 7,000 square kilometers, adding to its strategic set of Cornerstone surveys in the United Kingdom sector of the North Sea. Although there are a plethora of companies offering seismic data processing, generally only in a limited market, the main competitors to GGR on a global basis are Schlumberger and PGS.

The subsurface imaging and reservoir sector is led by CGG and WesternGeco. This market is characterized by greater client loyalty than the acquisition sector, as evidenced by the presence of subsurface centers on client premises. Processing capacity has multiplied in recent years as a result of improvements in computing technology. This increase in computing power has allowed improved processing quality and deadlines, as well as the use of more complex and accurate algorithms.

Competition in the high end of seismic imaging, where the GGR Division focuses its business, is almost exclusively based on technology and service level, where we feel we have differentiation. With our focus on reducing processing time as well as using more complex and accurate algorithms, we continue to increase our computing capacities through the use of innovative advances in technology.

GGR occupies a strong position in the relatively narrow market of seismic reservoir characterization software (Hampson-Russell and Jason). The overall seismic and geological interpretation software market is dominated by Schlumberger and Halliburton. Likewise, GGR has no major, global, competitor for its geological database business. In addition, GGR's reservoir consulting business competes head to head with many local players.

In the GeoSoftware business, we compete against Schlumberger and Landmarks who benefit from historical presence. In the GeoConsulting business, we mainly compete against Schlumberger.

GGR revenues in 2013 amounted to US\$1,295 million in 2013, an increase of 36% compared to 2012. GGR revenues represented 34% of the consolidated revenues in 2013. MCNV generated US\$585 million of this revenue (a 24% increase compared to 2012) and SIR generated US\$710 million (a 49% increase compared to 2012).

MCNV made a gross investment in seismic data library of US\$562 million in 2013, with a cash prefunding rate of 69% (58% gross prefunding rate). After sales revenue, revenue from completed surveys, was US\$260 million in 2013. The net book value of the sole multi-client library reached US\$783 million at the end of the year.

*2014 outlook*

We see demand for the products and services of GGR continuing to grow in 2014. New seismic multi-client data is required by our clients to solve complex geological problems offshore Brazil and in the deep sub-salt plays of the Gulf of Mexico. Our clients are also beginning to explore in frontier areas, such as the Arctic, where new 3D seismic data is currently limited, creating new multi-client seismic investment and revenue opportunities.

We believe demand for our high end processing will continue to increase. Growth in this business seems limited only by SIR's ability to identify, hire and train new processors capable of producing the high caliber of

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work expected from us by our clients. To this end, SIR has set high hiring goals for 2014, following a record hiring year in 2013. Our research and development efforts in SIR will remain high and will increase SIR's competitive advantage, but will also result in better multi-client data and enable advances in marine and land acquisition.

We also see growth in our software and consulting businesses, where we are continually launching new products and services. A component of development of the ex-Fugro businesses in this arena will involve expanding their geographic scope throughout the larger breadth of the GGR operations.

Our strategy for the GGR Division in 2014 is to:

Continue to invest significantly in multi-client surveys in the Gulf of Mexico and Brazil where our clients are deeply engaged in exploration and production operations in difficult deep water environments;

Continue to invest in research and development and people to maintain our lead in high end imaging and advance our software offering; and

Develop the recently acquired additions to our reservoir and geological operations.

### ***Equipment Division***

#### *Overview*

We conduct our equipment development and production operations through Sercel and its subsidiaries. Sercel is the market leader in the development and production of seismic equipment in the land and marine seismic markets. Sercel makes most of its sales to purchasers other than CGG. As of December 31, 2013, Sercel operated seven seismic equipment manufacturing facilities, located in Nantes and Saint Gaudens in France, Houston and Tulsa in the United States of America, Alfreton in England, Krimpen aan de Lek in The Netherlands and Singapore. In China, Sercel operates through Hebei Sercel-JunFeng Geophysical Prospecting Equipment Co. Ltd. ( Sercel-Junfeng ), based in Hebei, in which Sercel has a 51% equity stake. In addition, four sites in Toulouse, Les Ulis, Toulon and Brest (France) are dedicated to borehole tools (for the first two sites), marine sources and submarine acoustic instrumentation, respectively.

#### *General description of activities*

Sercel sells its equipment and offers customer support services including training on a worldwide basis. It relates to a complete range of geophysical equipment for seismic data acquisition, including seismic recording equipment, software and seismic sources either for land (vibrators) or marine (air guns). Sercel also supplies its clients with integrated solutions.

With respect to land acquisition equipment, the 428XL was launched on November 2005 as a successor to the 408UL system. This 400 product series represents the market standard. The 428XL continues the characteristics that made the 408 a success, such as an evolutive architecture and the option of mixing different communication media (cable, radio, micro-wave, laser and fiber-optic) to form a true network allowing the user to define data routing and hence avoid obstacles in the field. In addition, the 428XL offers enhanced possibilities in multi-component and in high density, methods which are increasingly required to obtain a high resolution image.

In the fall of 2013, Sercel launched its new 508XT system, which introduces a new paradigm in land seismic acquisition by offering high count channels crews the ability to record up to one million channels in real time, resulting in a new level of image resolution.

The 508XT is the first member of Sercel's new generation of state-of-the-art land seismic acquisition systems designed to drive crew productivity, operating flexibility and data quality to a new level.

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Both the 428 and 508XT systems can be used with the digital sensor unit (DSU) featuring one or three component digital sensors based on MicroElectroMechanicalSystems (MEMS). Sercel also introduced, along with its new acquisition system, QuietSeis, a new, high-performance digital sensor based on next-generation MEMS, allowing seismic signals to be recorded with three times less instrument noise than before.

The 508XT architecture combines the best of both cabled and wireless technologies with the Unite Technology. Sercel launched a new and more compact version of the Unite in 2012 to meet the increasing popularity of wireless systems.

Sercel is also a market leader for vibroseismic vehicles used as seismic source in land and for vibrator electronic systems VE 464. Sercel's latest vibrator family, called Nomad, offers high reliability and unique ergonomic features. Nomad is available with either normal tires or a tracked drive system. The track drive system allows Nomad vibrators to operate in terrain not accessible to vehicles with tires. In sand dunes or arctic conditions, this can improve crew productivity. The Nomad was designed to optimize reliability and maintenance in order to allow an intensive use on the field. Sercel also offers the Nomad 90 which is capable of exerting a peak force of 90,000 pounds and is believed to represent the heaviest vibrator on the market.

In addition to recording systems, Sercel develops and produces a complete range of geophysical equipment for seismic data acquisition and other ancillary geophysical products such as geophones, cables and connectors. The acquisition of a 51% stake in Sercel-JunFeng, based in China, in 2004, reinforced our manufacturing capabilities for geophone, cables and connectors, as well as our presence on the Chinese seismic market. In the fall of 2012, Sercel introduced the SG5 geophone featuring a low natural frequency.

In the down-hole domain, Sercel is offering its latest generation VSP tool, MaxiWave, which has received positive reviews from clients. Sercel built on its diversification into the well environment and more specifically the artificial lift in acquiring Geophysical Research Corporation on January 2012.

With respect to marine equipment, the Seal system capitalizes on the 428 architecture and electronics as well as on the latest streamer manufacturing methods. The Seal is currently the sole system with integrated electronics. In 2005, Sercel launched the Sentinel solid streamer that is the outcome of the technological synergies realized in acquisitions performed in recent years. The Sentinel cables have become a market standard and are used to equip a majority of new seismic vessels. The Sentinel RD is another generation of the Sentinel solid streamer which offers a reduced diameter and lower weight. In June 2013, Sercel introduced the Sentinel MS which is a Sentinel with multi-sensors together with two additional acceleration components, providing directive measurement for both cross line and vertical wave front. This streamer technology delivers multi-sensors data sets for enhanced broadband imaging.

The marine range of products has been further improved recently with the launch of SeaProNav, a navigation software allowing the real-time positioning of streamers, after the launch of the Nautilus in 2009, a totally integrated system for positioning seismic streamers. These two products received a favorable reception from early users.

The SeaRay is an ocean bottom cable offered under several configurations for depth of 100 to 500 meters. This cable is based on the 428 family acquisition systems technology and allows multi-components recording owing to its DSU 3 components.

In 2010, Sercel, through Optoplan, delivered to a client a first permanent seabed recording system with fiber optic cable.

Throughout its recent history, Sercel significantly expanded its product range and increased its market share in the seismic equipment industry, by combining its strong organic growth with a dynamic strategy of external growth, focused on the acquisition of complementary businesses or gaps in technology. Sercel acquired in

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October 2003 Sodera SA, a leading provider of air gun sources used mainly in marine seismic data acquisition and in 2004 with the acquisitions of a division of Thales Underwater Systems Pty Ltd. that developed and manufactured surface marine seismic acquisition systems, particularly solid streamers, and seabed marine seismic acquisition systems, Orca Instrumentation specialized in sub marine acoustics and of Createch in the borehole tools domain. In September 2006, Sercel acquired Vibration Technology Ltd, a Scottish company specialized in wireless systems. In May, 2008, Sercel acquired Metrolog, specialized in down-hole gauges, and in December 2008, Sercel acquired Quest Geo Solutions, a UK company focusing on navigation software. Early in 2009, Sercel acquired Optoplan, the Norwegian subsidiary of Wavefield specialized in permanent seabed recording systems using fiber optic technology. In January 2012, Sercel acquired the assets of Geophysical Research Corporation, a company specialized in downhole sensors and gauges for the oil and gas industry. Following the Geoscience Acquisition, De Regt, a manufacturer of marine cables, also entered Sercel's perimeter. In November 2013, Sercel acquired the assets of Schindler SynTec GmbH & Co. KG, part of the Schlinder group, which is specialized in the development of ropes based on synthetic fiber impregnated with resin for cables.

As a result of these acquisitions, Sercel is a market leader in the development and production of both marine and land geophysical equipment. It is a global provider for the seismic acquisition industry with a balanced industrial position in terms of both product range and geographical presence on the shores of the Atlantic and in Asia Pacific.

### *Competition and market*

We estimate that the worldwide demand for geophysical equipment decreased by 3% in 2013. This decrease was mainly due to a weakness of demand for land seismic equipment due to delays in high-channel count supercrews operating in the Middle East. Marine demand decreased slightly with a lower number of new build vessels partly offset by the increase of the replacement market. Sercel's market share is estimated at around 55%.

The principal competitor for the manufacture of marine seismic equipment is Ion Geophysical Inc. For land products, the main competitors are Inova (a joint venture between BGP and Ion Geophysical Inc) and Geospace Technologies Corporation. The market for seismic survey equipment is highly competitive and is characterized by continual and rapid technological change. We believe that technology is the principal basis for competition in this market, as oil and gas companies have increasingly demanded new equipment for activities such as reservoir management and data acquisition in difficult terrain. Oil and gas companies have also become more demanding with regard to the quality of data acquired. Other competitive factors include price and customers' support services.

The total production of the Equipment Division (Sercel), including internal and external revenues, amounted to US\$1,045 million, a 13% decrease compared to 2012.

Sercel external revenue amounted to US\$834 million, a decrease of 13% compared to 2012, and representing 22% of our consolidated revenue in 2013.

### *2014 outlook*

Sercel plans to use continuous and intensive research and development efforts, combined with dedicated business acquisitions, to expand Sercel's range of seismic acquisition equipment with advanced technology. Seismic equipment market estimates are deeply impacted by the weight of the high channel count crews (from US\$50 million to US\$150 million for a given crew depending upon the relevant client configuration). Without these mega-crews we estimate that the land market should remain stable in 2014. The marine market should face a decrease due to a reduction in capital investments from certain clients. The market for ocean bottom cables should decrease with the expected reduction of new permanent systems. Globally, the seismic equipment market is expected to be stable or to grow depending upon the deployment of high channel count crews. In addition, the

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geophysical market has been characterized by an increasing demand for technology intensity both in land and in marine for high resolution imaging and we anticipate that this trend should continue in 2014. This should be favorable to Sercel due to its strong installed base. Therefore, based on our internal assumptions related to the seismic equipment market, Sercel estimates that it should maintain its leading position in the seismic data equipment market by capitalizing on growth opportunities resulting from the strength of its current product base, the application of new technologies in all of its products as well as from its diversified geographical presence, including in emerging markets.

### **Seasonality**

Our land activity tends to increase in North America in the first quarter of the year due to the Alaskan and Canadian winter season (frozen grounds) but significantly decreases thereafter.

Our marine seismic acquisition activities are seasonal in nature. We generally experience decreased revenues in the first and fourth quarter of each year due to the effects of weather conditions in the Northern Hemisphere and to the fact that our principal clients are generally not prepared to fully commit their annual exploration budget to specific projects during that period.

We have historically experienced higher levels of activity in our equipment manufacturing operations in the fourth quarter as our clients seek to fully deploy annual budgeted capital. The same happens in our multi-client activity with oil and gas companies that seek to fully deploy their exploration budget in the last quarter of the year.

### **Intellectual property**

We continually seek the most effective and appropriate protection for our products, processes and software and, as a general rule, will file for patent, copyright or other statutory protection whenever possible. Our patents, trademarks, service marks, copyrights, licenses and technical information collectively represent a material asset to our business. However, no single patent, trademark, copyright, license or piece of technical information is of material importance to our business when taken as a whole. These patents last up to 20 years, depending upon the date filed and the duration of protection granted by each country.

### **Competition**

Most contracts are obtained through a competitive bidding process, which is standard for the industry in which we operate. Important factors in awarding contracts include service quality, technological capacity, performance, reputation, experience of personnel, customer relations and long-standing relationships, as well as price. While no single company competes with us in all of our segments, we are subject to intense competition with respect to each of our segments. We compete with large, international companies as well as smaller, local companies. In addition, we compete with major service providers and government-sponsored enterprises and affiliates. Some of our competitors operate more data acquisition crews than we do and have substantially greater financial and other resources. See - Business Overview for a discussion of the competitive factors in each of our business segments.

**Table of Contents****Organizational structure**

CGG SA is the parent company of the CGG Group. Its principal subsidiaries are as follows:

Subsidiary	Jurisdiction of Organization	Head office	% of interest
Sercel SA	France	Carquefou, France	100.0
CGG Services SA	France	Massy, France	100.0
CGG Holding B.V.	Netherlands	Amsterdam, the Netherlands	100.0
CGG Marine Resources Norge AS	Norway	Oslo, Norway	100.0
CGG Marine B.V.	Netherlands	Amsterdam, the Netherlands	100.0
Sercel Inc.	United States	Oklahoma, USA	100.0
CGG Holding (U.S.) Inc.	United States	Delaware, USA	100.0
CGG Services (U.S.) Inc.	United States	Delaware, USA	100.0
CGG Land (U.S.) Inc.	United States	Delaware, USA	100.0
CGGVeritas Services de Mexico SA de CV	Mexico	Mexico City, Mexico	100.0
CGG do Brasil Participações Ltda.	Brazil	Rio de Janeiro, Brazil	100.0
CGG Services (UK) Ltd	UK	Crawley, UK	100.0
CGG Services (Singapore) Pte. Ltd	Singapore	Singapore	100.0
Ardiseis FZCO	Dubai	Dubai, UAE	51.0

**Property, plant & equipment**

The following table sets forth certain information relating to the principal properties of CGG Group as of December 31, 2013:

Location	Type of facilities	Size (sq.m.)	Owned/ Leased	Lease expiration date
France, Paris	Headquarters of CGG SA	1,655	Leased	2016
<b>GEOPHYSICAL SERVICES (ACQUISITION AND GGR DIVISIONS)</b>				
Angola, Luanda	Offices of CGG Explo Branch and Data processing center	300	Leased	2015
Australia, Perth	Registered office of CGG Services (Australia) Pty Ltd and Data processing center	1,580	Leased	2014
Australia, Perth	Offices	1,562	Owned	N/A
Australia, Jandokot Airport, Perth	Warehouse	6,276	Leased	2014
Brazil, Rio de Janeiro	Registered office of CGG Do Brazil Participacoes LTDA and Data processing center	1,522	Leased	2016
Brazil, Rio de Janeiro	Warehouse	470	Leased	2015
Canada, Calgary	Registered office of Hampson Russell Ltd Partnership and Data processing center	9,268	Leased	2015
Canada, Calgary	Land Operation offices (Canada)	21,800	Leased	2014
Canada, Calgary	Warehouse	5,070	Leased	2015
Canada, Ottawa	Offices and warehouse	2,555	Owned	N/A
Canada, Toronto	Offices and warehouse	3,448	Leased	2018



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Location	Type of facilities	Size (sq.m.)	Owned/ Leased	Lease expiration date
China, Beijing	Office of CGG Services Technology (Beijing) Co, Ltd and Research and development center	533	Leased	2014
China, Beijing	Offices	677	Leased	2015
England, Redhill	Administrative offices and Operations computer hub	1,884	Leased	2029
England, Crawley	Crompton Way Offices of CGG Services (UK) Ltd. and Data processing center	9,290	Leased	2028
England, Swanley	Offices	1,381	Leased	2014
England, Wallingford	Offices and warehouse of Robertson	1,323	Leased	2022
France, Massy	Registered office of CGG Services SA and Data processing center	17,850	Leased	2020
France, Massy	CGG University	1,488	Leased	2020
France, Arpajon	Offices and warehouse	8,000	Leased	2015
India, Mumbai	Registered office of CGG Services India			
	Pvt Ltd and Data processing center	1,675	Leased	2018
Indonesia, Jakarta	Registered office of PT Veritas Mega Pratama and Data processing center	967	Leased	2016
Malaysia, Kuala Lumpur,				
	Registered office of CGG Services (Malaysia) Sdn Bhd and Data processing center	1,328	Leased	2014
Kuching				
Mexico, Villahermosa	Data processing center and offices	1,700	Leased	2015
Mexico, Mexico City	Registered office of CGG Veritas Services de Mexico SA de CV	570	Leased	2014
Netherlands, Amsterdam	Offices	487	Leased	2017
Netherlands, La Hague	Offices	3,160	Leased	2022
Nigeria, Lagos	Registered office of CGG (Nigeria) Ltd and offices of Veritas Geophysical (Nigeria) Ltd	800	Leased	2015
North Wales, Anglesey	Data management Solutions	4,362	Owned	N/A
North Wales, Llanfairfechan	Data management Solutions	1,768	Leased	2014
North Wales, Llanrhos	Offices and laboratories	78,785	Leased	2016
North Wales, Conwy	Offices/storage facility	2,829	Owned	N/A
Norway, Oslo, Høvik	Offices of CGG Marine Resources Norge AS, CGG Services Norge (branch) and Data processing center	2,250	Leased	2014
Norway, Skoyen, Oslo	Offices and Data Processing Center	9,320	Leased	2020
Norway, Bergen	Offices of CGG Services (Norway) AS, Wavefield Inseis AS, Exploration Vessel Resources and Exploration Investment Resources II AS	7,648	Leased	2019
Russia, Moscow	Registered office of CGG Vostok and			
	Data processing center	760	Leased	2015
Russia, Moscow	Offices	951	Leased	2015
Scotland, Aberdeenshire	Birchmoss offices	3,065	Leased	2016
Scotland, Aberdeenshire	Inverurie offices	2,348	Leased	2014
Singapore	Registered office of CGG Services (Singapore) Pte. Ltd. and Data Processing Center	8,183	Leased	2019

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Location	Type of facilities	Size (sq.m.)	Owned/ Leased	Lease expiration date
Singapore	Logistic Marine Warehouse	6,550	Leased	2022
South Africa	Warehouse and offices	1,928	Leased	2015
Switzerland, Geneva	Registered office of CGG International	606	Leased	2017
Thailand, Bangkok,	Offices of CGG Services SA (branch)	567	Leased	2016
USA, Houston, Texas	Principal executive offices of CGG Services (US) Inc. and data processing center	29,805	Leased	2020
USA, Okanella Street, Houston	Offices	2,415	Leased	2015
USA, Hillcroft, Houston	Offices	74,712	Leased	2014
USA, Schulenburg	Warehouse	28,230	Owned	N/A
Venezuela, Caracas	Head office of EXGEO CA	315	Leased	2015
Vietnam, Vung Tau City	Offices	300	Leased	2015
<b>EQUIPMENT</b>				
Canada, Calgary	Offices and warehousing premises of Sercel	3,995	Owned	N/A
China, Xu Shui	Manufacturing and research and development facilities	59,247	Owned	N/A
France, Carquefou	Sercel manufacturing and research and development facilities recording equipment (land and marine)	25,005	Owned	N/A
France, Saint Gaudens	Sercel manufacturing and research and development facilities	23,051	Owned	N/A
USA, Houston, Texas,	Offices and manufacturing			
(ParkRow, Fallstone A)	premises of Sercel	33,932	Owned	N/A
USA, Houston, Texas	Offices and manufacturing premises of Sercel	14,256	Owned	N/A

We also lease other offices worldwide to support our operations. We believe that our existing facilities are adequate to meet our current requirements.

Information concerning our seismic vessels is set out under [Business Overview](#) [Acquisition Division](#) [Marine Acquisition Business Line](#) above.

**Environmental matters and safety**

CGG has a structured approach to Health, Safety, Security and Environment (HSE), built on our HSE management system. The HSE management system is consistent with the Oil & Gas Producers (OGP) Guidelines for the Development and Application of Health, Safety and Environment management systems which has become a de facto industry standard. The HSE management system is implemented across our activities; it has a wide scope including the health, safety and security of our permanent employees, our seasonal employees and our sub-contractors working on our projects, as well as the environmental impact of all of our projects and facilities.

A dedicated HSE organization comprising 140 professionals supports the operating divisions in all aspects of the management system, from risk identification and control through training and communication to emergency response in the event of an incident. This professional staff, which is widely distributed across our business, monitors the local regulatory environment in HSE and assists our line management in putting the necessary compliance measures in place.

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### **Legal proceedings**

From time to time we are involved in legal proceedings arising in the normal course of our business. We do not expect that any of these proceedings, either individually or in the aggregate, will result in a material adverse effect on our consolidated financial condition or results of operations.

#### *Requests for information made by the US Department of Commerce's Bureau of Industry and Security:*

Following a request for information made by representatives of the US Department of Commerce's Bureau of Industry and Security (BIS), we conducted an internal review of the facts surrounding shipments to our vessels operating in or near Cuba. During the course of our review, we discovered that, despite our precautions, some shipments may not have complied fully with our internal policies and possibly violated applicable export controls and sanctions laws. We have provided BIS with all of the information it has requested to date and are cooperating fully with it in this matter. We have also informed on a voluntary basis the US Office of Foreign Assets Control.

We do not expect this matter to have any material impact on our results of operation, financial position, or cash flows.

#### *ONGC arbitration*

On March 18, 2013, CGG Services SA, 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 the two entities between 2008 and 2010. We believe that this arbitration proceeding will allow us to recover the receivables that are recorded on our balance sheet as unpaid receivables as of December 31, 2013.

### **Item 4A: UNRESOLVED STAFF COMMENTS**

None.

### **Item 5: OPERATING AND FINANCIAL REVIEW AND PROSPECTS**

#### **Introduction**

Until February 1, 2013, we organized ourselves and presented our financial results on the basis of two segments: Geophysical Services and Geophysical Equipment. As a result of the acquisition of Fugro's Geoscience Division in January 31, 2013, we changed our organization, as well as the way management measures our performance. Since February 1, 2013, we have been organized in three divisions, which we also used as segments for our financial reporting. These segments are:

**Acquisition**, which comprises the following business lines:

Marine: offshore seismic data acquisition that we undertake either on behalf of a specific client, or for our Multi-Client Business Line (internal activity);

Land and Airborne: other seismic data acquisition that we undertake either on behalf of a specific client, or for our Multi-Client Business Line (internal activity).

**Geology, Geophysics & Reservoir** ( GGR ). This operating segment comprises the Multi-Client Business Line (development and management of seismic surveys that we undertake and license to a number of clients on a non-exclusive basis) and the Subsurface Imaging and Reservoir Business Line (processing and imaging of geophysical data, reservoir characterization, geophysical consulting and software services, geological data library and data management solutions). Both business lines regularly combine their offers, generating overall synergies between their respective activities.



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**Equipment**, which comprises manufacturing and sales of seismic equipment used for data acquisition, both on land and marine. We carry out the activity in the Equipment segment through our subsidiary Sercel.

Financial information by segment is reported in accordance with our internal reporting system to our chief operating decision maker, which uses it to manage and measure our performance.

In 2013, in addition to our reorganization into three segments, we also changed our main performance indicator from operating income to earnings before interest and tax ( EBIT ). We define EBIT as operating income plus our share of income from companies accounted for under the equity method. Management uses EBIT as a performance indicator because we believe it captures the contribution to our results of the significant businesses that we manage through our joint ventures.

Prior period segment disclosure has been restated to reflect the new segments.

### **Operating results**

The following operating and financial review and prospects should be read in conjunction with our consolidated annual financial statements and the notes thereto included elsewhere in this annual report, which have been prepared in accordance with IFRS (International Financial Reporting Standards) as issued by the IASB (International Accounting Standards Board) and as adopted by the European Union on December 31, 2013.

### **Factors affecting our results of operations**

Our operating results are generally affected by a variety of factors, including changes in foreign exchange rates, particularly the value of the euro against the dollar, changes in oil prices, which are also generally denominated in dollars, and changes in our scope of consolidation. See also Trend Information herein.

#### ***Foreign exchange fluctuations***

As a company that derives a substantial amount of its revenues from international sales, which are often denominated or linked to the US dollar but with costs that are to a certain extent denominated in euros, our results of operations are affected by fluctuations in currency exchange rates. Variations between the US dollar and euro or other currencies may adversely affect our business by negatively impacting our results of operations and earnings.

The US dollar/euro exchange rates as of December 31, 2011, 2012 and 2013 were US\$1.2939, US\$1.3194, and US\$1.3791 respectively, per euro, and the average exchange rates for the years 2011, 2012 and 2013 were US\$1.4025, US\$1.2900 and US\$1.3254 respectively, per euro.

See Trend information Currency fluctuations below.

#### ***Geophysical market environment***

Overall demand for geophysical services and equipment is dependent on spending by oil and gas companies for exploration, development and production and field management activities. We believe the level of spending of such companies depends on their assessment of their ability to efficiently supply the oil and gas market in the future and the current balance of hydrocarbon supply and demand.

The geophysical market has historically been extremely cyclical. We believe many factors contribute to the volatility of this market, such as the geopolitical uncertainties that can harm the confidence and visibility that are essential to our clients' long-term decision-making processes and the expected balance in the mid- to long-term between supply and demand for hydrocarbons. Exploration & Production companies have budgeted an overall

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increase in exploration and production spending, with a strong focus on international activity in 2014, although at a slower pace than in previous years. We believe these decisions are the result of funding constraints imposed by payments of dividends and share buy-backs on one hand, and capital expenditures driven by inflation and non-conventional exploration on the other hand. We expect this increase in exploration and production spending to sustain marine prices and overall volume in 2014.

See Item 4: Information on the Company Industry Conditions for a discussion of developments in the geophysical Industry.

***Acquisitions and divestitures***

Acquisitions and divestitures have had a significant impact on our year-on-year revenues. Recent acquisitions and disposals have included:

***During 2013***

***Closing of the Acquisition of Fugro Geoscience Division***

Pursuant to the terms of a Sale and Purchase Agreement (the SPA) between the Company and Fugro NV (Fugro) dated September 24, 2012, we agreed to acquire (the Acquisition) most of the Geoscience Division of Fugro, i.e.:

Fugro-Geoteam (specializing in marine streamer seismic data acquisition);

Fugro Seismic Imaging (specializing in seismic data processing services);

Fugro Geophysical and Geological Services (specializing in geographical exploration services);

De Regt Marine Cables (specializing in high-end cables and umbilicals),

as well as all related entities and assets, but excluding Fugro's multi-client library and ocean bottom nodes (OBN) activity (the acquired activities are referred to herein as the Geoscience Division).

The Parties have also agreed to establish certain strategic partnerships, in particular, to:

Establish a joint venture with Fugro, Seabed Geosolutions BV, to which Fugro would contribute its OBN activity and we would contribute our shallow water, ocean bottom cable (OBC) and OBN activities (the Seabed JV); and

Enter into certain commercial agreements with Fugro, including (i) a non-exclusive selling and marketing agreement with respect to Fugro's multi-client library, (ii) a technological and commercial agreement providing reciprocal preferred supplier status and (iii) a transitional services agreement (together, the Commercial Agreements).

On January 31, 2013, we completed the acquisition with the exception of the Airborne activity and certain minor assets for which the acquisition took place on September 2, 2013, upon obtaining the main administrative authorizations.

The total purchase price, amounted to US\$1,572 million, leading to a goodwill of US\$721 million.

This transaction was financed with the net proceeds of a 414 million capital increase with the rights issue we conducted in October 2012, with the net proceeds of the 360 million convertible bonds we issued in November 2012, and with a vendor loan from Fugro which was agreed upon

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to achieve a rapid closing. This vendor loan amounted to 125 million at the closing date, and was extended to 225 million at the date of effective acquisition of the airborne activity.

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As of December 31, 2013, we paid a total net consideration of US\$933.0 million for the whole Fugro transaction, after final adjustments, notably for actual levels of working capital, indebtedness and cash position. Moreover, half of the vendor loan is repaid.

Based on the financial information related to entities we acquired (Fugro Geoscience Division, excluding multi-client survey), group operating revenues would have been US\$3,875.8 million if the acquisition had taken place on January 1, 2013. The impact on the net income (loss) would have been not significant.

The amounts of net assets acquired and liabilities assumed recognized at the acquisition date are as follows:

	<b>Fair value (In millions of US dollars)</b>
Cash & cash equivalents	28
Current assets (liabilities), net	39
Vessels and fixed assets, net <sup>(1)</sup>	625
Other non-current assets, net	12
Intangible assets, net <sup>(1)</sup>	94
Customer relationships (weighted-average life of 14 years)	53
Multi-client geological data library (maximum life of 7 years) <sup>(2)</sup>	39
Financial debt	(4)
Non-current liabilities	(35)
<b>Total identifiable net assets acquired</b>	<b>851</b>
<b>Goodwill</b>	<b>721</b>
<b>Purchase price consideration</b>	<b>1,572</b>

<sup>(1)</sup> The fair values of two vessels and their related equipment and technologies were determined by using comparable market data.

<sup>(2)</sup> The fair value of the Robertson's geological data library was determined by using a relief from royalty approach.

The goodwill recognized includes intangible assets that do not qualify for separate recognition such as assembled workforce and synergies expected between the business lines of our GGR segment that resulted from the acquisition (see note 19).

None of the goodwill recognized is expected to be deductible for income tax purposes.

*Creation of the Seabed Geosolutions BV joint venture*

On February 16, 2013, we and Fugro launched the joint venture Seabed Geosolutions BV (the Seabed JV), in which we hold a 40% stake and Fugro holds the other 60%. We have accounted for the Seabed JV using the equity method since then.



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The following table summarizes the consideration we received for the contribution of our shallow water and OBC businesses to the Seabed JV and the carrying value of the assets contributed:

	(In millions of US dollars)
<b>Consideration received</b>	
Credit note <sup>(1)</sup>	281
Fair value of our shares in Seabed Geosolutions BV <sup>(2)</sup>	217
<b>Total consideration received</b>	<b>498</b>
<b>Carrying value of the contributed assets and liabilities</b>	
Cash	9
Goodwill	313
Other assets and liabilities	91
<b>Total carrying value of the contributed assets and liabilities</b>	<b>413</b>
<b>Net gain realized</b>	<b>85</b>

<sup>(1)</sup> This relates to the amount due by Fugro and was deducted from the cash amount we paid for the acquisition of the Fugro Geoscience Division (see above).

<sup>(2)</sup> The fair value of our shares in Seabed Geosolutions BV has been assessed using a multi-criteria approach based on the present value of discounted cash flows and market multiples derived from a set of comparable transactions.

The net gain of US\$85 million, realized from our contribution to this entity was recorded in the line item Other revenues (expenses) net in our statement of operations.

As of December 31, 2012, in accordance with the terms of the SPA and especially the establishment of the Seabed JV, we reclassified the contributed assets for US\$76.4 million in assets held for sale in our balance sheet. We also reclassified the goodwill corresponding to contributed businesses for US\$300 million.

*Sale of interest in Spectrum ASA*

On February 20, 2013, we sold all of the remaining shares we held in Spectrum ASA at NOK 47.50 per share. We recognized a US\$19.8 million gain recorded in the line item Other revenues (expenses) net in our statement of operations.

*Creation of a ship management joint venture with Louis Dreyfus Armateurs group (LDA)*

On April 16, 2013, we and LDA created a ship management joint venture, GeofieLD Ship Management Services SAS, in which we each own 50%. The new joint venture provides maritime ship management services for CGG's high-capacity 3D seismic vessels. We have accounted for this entity using the equity method since then.

*Purchase option over Geomar with Louis Dreyfus Armateurs group (LDA)*

On November 27, 2013, we agreed with LDA to exercise a purchase option on the shares held by LDA in Geomar the company owning the CGG Alizé vessel. This purchase will be effective on April 1, 2014.

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This transaction has no impact on the consolidation method of this subsidiary which remains fully consolidated. The change of ownership interests has been accounted as an equity transaction as of December 31, 2013.

### *Framework agreement with Industrialization & Energy Services Company (TAQA)*

On December 31, 2013, we and TAQA signed a Framework Agreement that strengthens and extends our historical and long-term partnership in the Middle East.

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CGG and TAQA are currently shareholders of two joint ventures in the Middle East: the first, Argas, is a Saudi company established in 1966, covering geophysical activities in the Kingdom of Saudi Arabia, of which TAQA owns 51% and CGG owns 49%; the second, Ardiseis FZCO, is a company established in 2006 in Dubai, covering land and shallow water data acquisition activities in the rest of the Middle East, of which CGG owns 51% and TAQA 49%. Through the Framework Agreement, Argas will become the sole shareholder of Ardiseis FZCO, with Argas and Ardiseis FZCO pooling all their resources to create a more efficient and powerful combined Argas Group. The new Argas group will have a stronger capital base, cover a larger business scope, and will be 51% owned by TAQA and 49% owned by CGG.

In relation with this agreement, net assets of Ardiseis FZCO have been reclassified in Assets held for sales for an amount of US\$22 million.

***During 2012***

*Acquisition of Geophysical Research Corporation*

On January 17, 2012, Sercel acquired the assets of Geophysical Research Corporation, LLC ( GRC ). Headquartered in Tulsa, Oklahoma (USA), and established in 1925 by Amerada Petroleum Corporation, GRC is a leading provider of downhole sensors and gauges for the oil and gas industry. The purchase price amounted to US\$66 million, including an earn-out of US\$17 million, and after allocation of the purchase price, we recorded final goodwill in the amount of US\$23 million.

GRC has been fully consolidated in our financial statements since January 17, 2012.

*PTSC CGGV Geophysical Survey Company Limited joint venture*

On March 27, 2012, we contributed the seismic vessel *Amadeus*, a high capacity 3D seismic vessel, to our newly established joint venture PTSC CGGV Geophysical Survey Company Limited while PTSC contributed the *Binh Minh II*, a 2D seismic vessel. The joint venture is 51% owned by PTSC and 49% owned by CGG. We account for this entity using the equity method.

*Sale of interest in Spectrum ASA*

During the year ended December 31, 2012, we sold a 18.82% stake in Spectrum ASA and recognized a gain of US\$15 million in the line item Other revenues (expenses) of our statement of operations. Our remaining shareholding interest as of December 31, 2012 represented 10.14% of Spectrum ASA. We accounted for Spectrum ASA under the equity method in our financial statements as we had one member on the Board of Directors.

***During 2011***

*Asset exchange with Norfield AS*

On January 13, 2011, the exchange of assets between certain subsidiaries of CGG and the Norwegian group Norfield was completed. As a result of this transaction, we acquired Voyager AS (renamed Exploration Vessel Resources II AS), the owner of the seismic vessel *Geowave Voyager*; and sold the seismic vessel *Venturer* to Norfield AS. CGG is no longer a shareholder of Norfield AS.

CGG owns 100% of Exploration Vessel Resources II AS. This company has been consolidated in our financial statements since January 13, 2011.

We recorded a gain of US\$10.9 million in the line item Other revenues (expenses) in our statement of operations from the disposal of our assets in relation to this transaction.

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On the date we acquired it, Exploration Vessel Resources II AS entered into a US\$45 million credit facility secured by a pledge over the *Geowave Voyager*.

*Acquisition of Petrodata Consulting LLC*

On March 17, 2011, we purchased for US\$2.5 million Petrodata Consulting LLC, a Moscow-based company offering static and dynamic reservoir modeling, reserve estimation and risking, and field development services to the international oil and gas industry. CGG owns 100% of the company. Petrodata Consulting LLC is fully consolidated in our financial statements.

*PT Elnusa-CGGVeritas Seismic joint venture*

On April 7, 2011, we signed an agreement with PT Elnusa Tbk (Elnusa) to create a marine joint venture company in Indonesia, PT Elnusa-CGGVeritas Seismic. The company's intention was to deliver 2D and 3D marine seismic acquisition services to oil and gas company clients operating mainly in Indonesia and to operate the first Indonesian-owned and flagged seismic vessel, the *Pacific Finder*.

PT Elnusa-CGGVeritas Seismic, under joint control, is 51% owned by Elnusa and 49% owned by CGG. This company has been accounted under the equity method in our financial statements since July 5, 2011.

*PTSC CGGV Geophysical Survey Company Limited joint venture*

On April 19, 2011, we entered into an agreement with PetroVietnam Technical Services Corporation (PTSC) to create a marine joint venture company, PTSC CGGV Geophysical Survey Company Limited. The company delivers 2D and 3D marine seismic acquisition services to oil and gas company clients mainly operating in Vietnamese waters and the region.

*CGG Eidesvik Ship Management AS joint venture (formerly named CGGVeritas Eidesvik Ship Management AS)*

On June 27, 2011, we signed a joint venture agreement with Eidesvik Offshore to create a joint venture to manage ten high-capacity 3D vessels in the CGG fleet, including the two new X-BOW vessels, *Oceanic Vega* and *Oceanic Sirius*.

The joint venture, CGG Eidesvik Ship Management AS, is 51% owned by Eidesvik and 49% owned by CGG. This company has been accounted under the equity method in our financial statements since June 27, 2011.

*Spectrum ASA investment*

On July 28, 2011, we signed a strategic agreement with Spectrum ASA, a Norwegian multi-client company, for the contribution of our 2D multi-client marine library for consideration comprising cash and a 25% equity stake in Spectrum ASA, which together amounted to a value of US\$40 million. The transaction was finalized on September 15, 2011. We recognized a gain of US\$18.8 million presented in the line item "other revenues (expenses)" in our statement of operations.

On October 3, 2011, in conjunction with this transaction, Spectrum ASA issued convertible bonds for an aggregate amount of US\$13.6 million (NOK77 million). The conditions of this issue are described in the prospectus issued by Spectrum ASA on September 14, 2011. In this issuance, CGG was allocated 27,682,970 convertible bonds representing US\$4.9 million (NOK27.7 million). On December 30, 2011, we converted these bonds and received 1,977,355 shares of Spectrum ASA.

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As a result, we held 10,840,181 shares of Spectrum ASA representing 29% of its share-capital. The investment had a net book value of US\$26.7 million as of December 31, 2011. We have accounted for this entity using the equity method since September 15, 2011.

### *Sale of Cybernetix*

During 2011, we sold all of our shareholding in Cybernetix. The gain of US\$4.2 million from this disposal was recorded in the line item Other revenues (expenses) in our statement of operations.

### *Seismic vessels*

On October 3, 2011, we took delivery of the seismic vessel *Oceanic Sirius*. We have accounted for Oceanic Seismic Vessels AS, the owner of the vessel, using the equity method since the delivery date.

## ***Backlog***

Backlog estimates are based on a number of assumptions and estimates, including assumptions as to exchange rates between the euro and the US dollar and estimates of the percentage of completion contracts. Contracts for services are occasionally modified by mutual consent and in certain instances are cancelable by the customer on short notice without penalty. The historical relationships we have with many of our clients (most of which are large, well established companies) tends to reduce our exposure to the risk of early termination. Nevertheless, backlog as of any particular date may not be indicative of actual operating results for any succeeding period.

Backlog for our Acquisition and GGR segments represents the revenues we expect to receive from commitments for contract services we have with our customers and, in connection with the acquisition of multi-client data, represents the amount of pre-sale commitments for such data. Backlog for our Equipment segment represents the total value of orders we have received but not yet fulfilled.

Our backlog for our Acquisition, GGR and Equipment segments was US\$1.35 billion as of January 1, 2014.

## **Critical Accounting Policies and Estimates**

Our significant accounting policies, which we have applied consistently, are fully described in note 1 to our consolidated financial statements included elsewhere in this document. However, certain of our accounting policies are particularly important to the portrayal of our financial position and results of operations, and these are described below.

In applying our accounting policies, management makes estimates, assumptions and judgment about uncertain matters that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements. Actual results could differ materially from those estimates under different assumptions or conditions.

Our significant estimates relate mainly to the expected cash flows used to measure the recoverability of certain intangible assets such as deferred tax assets, our multi-client data library and goodwill and to determine the amortization rate of our multi-client surveys. To calculate the recoverable amount of our goodwill, we use estimates that are based on our outlook for the seismic industry, as well as the expected cash flows in our three-year plan and what we consider to be normative cash flows for the years thereafter. See note 11 to our consolidated financial statements included elsewhere in this document for the key assumptions used in our determination of asset recoverability and the sensitivity in changes in assumptions. Changed assumptions, in particular the discount rate and the normative cash flow, could significantly affect our impairment result.

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### *Operating revenues*

Operating revenues are recognized when they can be measured reliably, and when it is likely that the economic benefits associated with the transaction will flow to the entity, which is at the point that such revenues have been realized or are considered realizable.

### *Multi-client surveys*

Revenues related to multi-client surveys result from (i) pre-commitments and (ii) licenses after completion of the surveys ( after-sales ).

*Pre-commitments* Generally, we obtain commitments from a limited number of customers before a seismic project is completed. These pre-commitments cover part or all of the survey area blocks. In return for the commitment, the customer typically gains the right to direct or influence the project specifications, advance access to data as it is being acquired, and favorable pricing. We record payments that it receives during periods of mobilization as advance billing in the balance sheet in the line item Advance billings to customers .

We recognize pre-commitments as revenue when production has started based on the physical progress of the project, as services are rendered.

*After sales* Generally, we grant a license entitling non-exclusive access to a complete and ready for use, specifically defined portion of our multi-client data library in exchange for a fixed and determinable payment. We recognize after sales revenue upon the client executing a valid license agreement and having been granted access to the data.

In case after sales agreements contain multiple deliverable elements, the revenue is allocated to the various elements based on specific objective evidence of fair value, regardless of any separate allocations stated within the contract for each element. Each element is appropriately accounted for under the applicable accounting standard.

*After sales volume agreements* We enter into a customer arrangement in which we agree to grant licenses to the customer for access to a specified number of blocks of the multi-client library. These arrangements typically enable the customer to select and access the specific blocks for a limited period of time. We recognize revenue when the blocks are selected and the client has been granted access to the data and if the corresponding revenue can be reliably estimated.

### *Exclusive surveys*

In exclusive surveys, we perform seismic services (acquisition and processing) for a specific customer. We recognize proprietary/contract revenues as the services are rendered. We evaluate the progress to date, in a manner generally consistent with the physical progress of the project, and recognize revenues based on the ratio of the project cost incurred during that period to the total estimated project costs as far as they can reliably be assessed.

The billings and the costs related to the transit of seismic vessels at the beginning of the survey are deferred and recognized over the duration of the contract by reference to the technical stage of completion.

In some exclusive survey contracts and a limited number of multi-client survey contracts, we are required to meet certain milestones. We defer recognition of revenue on such contracts until all milestones that provide the customer a right of cancellation or refund of amounts paid have been met.

### *Equipment sales*

We recognize revenues on equipment sales upon delivery to the customer when risks and rewards are fully transferred. Any advance billings to customers are recorded in current liabilities.

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### *Software and hardware sales*

We recognize revenues from the sale of software and hardware products following acceptance of the product by the customer at which time we have no further significant vendor obligations remaining. Any advance billings to customers are recorded in current liabilities.

If an arrangement to deliver software, either alone or together with other products or services, requires significant production, modification, or customization of software, the entire arrangement is accounted for as a production-type contract, i.e. using the percentage of completion method.

If the software arrangement provides for multiple deliverables (e.g. upgrades or enhancements, post-contract customer support such as maintenance, or services), the revenue is allocated to the various elements based on specific objective evidence of fair value, regardless of any separate allocations stated within the contract for each element. Each element is appropriately accounted for under the applicable accounting standard.

Maintenance revenues consist primarily of post contract customer support agreements and are recorded as advance billings to customers and recognized as revenue on a proportional performance basis over the contract period.

### *Other geophysical sales/services*

Revenues from our other geophysical sales/services are recognized as the services are performed and, when related to long-term contracts, using the proportional performance method of recognizing revenues.

### *Customer loyalty programs*

We may grant award credits to our main clients. These award credits are contractually based on cumulative services provided during the calendar year and attributable to future services.

These credits are considered as a separate component of the initial sale and measured at their fair value by reference to the contractual rates and the forecasted cumulative revenues for the calendar year. These proceeds are recognized as revenue only when the obligation has been fulfilled.

### *Multi-client surveys*

Multi-client surveys consist of seismic surveys to be licensed to customers on a non-exclusive basis. All costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized into the multi-client surveys (including transit costs when applicable). The value of our multi-client library is stated on our balance sheet at the aggregate of those costs less accumulated amortization or at fair value if lower. We review the library for potential impairment at each balance sheet date at the relevant level (independent surveys or groups of surveys).

We amortize the multi-client surveys over the period during which the data is expected to be marketed using an amortization rate applied to recognized revenues.

Multi-client surveys are classified into a same category when they are located in the same area with the same estimated sales ratio, such estimates generally relying on the historical patterns.

Depending on the category of the survey, we generally use amortization rates from 50.0% to 83.3% corresponding to the ratio of total estimated costs over total estimated sales, unless specific indications lead to apply a different rate.

For all categories of surveys and starting from data delivery, a minimum straight-line depreciation scheme is applied over a five-year period, if total accumulated depreciation from the applicable amortization rate is below

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this minimum level. However, for the surveys of our offshore Brazilian multi-client library directly impacted by repeated delays of new licensing rounds, we adjusted our estimate, as of April 1, 2012 with prospective effect, by applying a minimum straight-line depreciation over 7 years.

### ***Development costs***

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 less accumulated amortization and impairment losses.

We amortize capitalized development costs over five years.

Research and development expenses in our income statement represent the net cost of development costs that are not capitalized, of research costs, offset by government grants acquired for research and development.

### ***Impairment***

The carrying values of our assets (excluding inventories, deferred tax assets, assets arising from employee benefits and financial assets) are reviewed at each balance sheet date or if any indication exists that an asset may be impaired, in accordance with IAS 36 Impairment of assets. Factors we consider important that could trigger an impairment review 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 acquired 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 net 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. We estimate the recoverable amount of these cash generating units at each balance sheet closing date and whenever any indication exists that the



cash generating unit may be impaired.

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 a discount rate that reflects the expected return on invested capital given the characteristics and risks attached to the asset. When the recoverable value retained is a fair value less cost of disposal, the fair value is determined by reference to an active market.

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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 income statement. 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 then, 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 (when determinable).

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, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the income statement unless the asset is carried at a revalued amount, in which case the reversal is treated as a revaluation increase.

Impairment losses recognized on goodwill cannot be reversed.

**Year ended December 31, 2013 compared to year ended December 31, 2012*****Operating revenues***

The following table sets forth our operating revenues by business lines and division for each of the periods stated:

	<b>Year ended December 31,</b>	
	<b>2013</b>	<b>2012</b>
	<b>(restated)</b>	
	<b>(In millions of US dollars)</b>	
Marine acquisition	1,786	1,310
Land and Airborne acquisition	440	568
<b>Acquisition Division Production</b>	<b>2,226</b>	<b>1,878</b>
Multi-client data	585	472
Subsurface Imaging and Reservoir	711	478
<b>GGR Division Revenues</b>	<b>1,296</b>	<b>950</b>
<b>Equipment Division Production</b>	<b>1,045</b>	<b>1,204</b>
Eliminated production and others	(801)	(621)
<b>Total consolidated</b>	<b>3,766</b>	<b>3,411</b>

Our consolidated operating revenues in 2013 increased 10% to US\$3,766 million from US\$3,411 million in 2012, mainly as a result of the acquisition of Fugro Geoscience Division on January 31, 2013 and despite the contribution of our seabed activities to our new joint venture.

**Acquisition**

Total production of our Acquisition segment (including internal and external sales), increased 19% to US\$2,226 million in 2013 compared to US\$1,878 million in 2012, mainly due to the integration of Fugro's fleet, which is composed of four C-Class seismic vessels and two other seismic vessels *Geo Barents* and *Geo Atlantic* from February 1, 2013. External revenues increased 9% to US\$1,636 million in 2013, from US\$1,507 million in 2012.

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### *Marine acquisition*

Total production of our Marine Acquisition Business Line (including internal and external sales) increased 36% to US\$1,786 million in 2013 compared to US\$1,310 million in 2012, mainly due to the integration of Fugro's fleet and good marine production, but was partially offset by weaker pricing during the second half of 2013.

### *Land and Airborne acquisition*

Total production of our other acquisition businesses (including internal and external sales) decreased 23% to US\$440 million in 2013 compared to US\$568 million in 2012. Our seabed activities were contributed in 2013 to the Seabed JV we launched with Fugro, while airborne activities were only included in our results of operations for four months in 2013, but were negatively impacted by weak demand in the mining market. With respect to land acquisition, the winter campaign in North America was significantly weaker in 2013 as in 2012 and the land acquisition business in North Africa was progressively recovering in still challenging safety conditions.

## **Geology, Geophysics & Reservoir**

Operating revenues from our GGR segment in 2013 increased 36% to US\$1,296 million from US\$950 million in 2012 as a result of the acquisition of Fugro's geology, geophysics and reservoir activities and to a strong performance in both GGR business lines.

### *Multi-client data*

Multi-client revenues increased 24% to US\$585 million in 2013 from US\$472 million in 2012 mainly due to the increase in prefunding revenues and higher after-sales.

Prefunding revenues increased 23% to US\$325 million in compared to US\$264 million in 2012, mainly focused in the Gulf of Mexico (with the continuation of our IBALT program), offshore Angola, Australia and the North Sea. The cash prefunding rate was 69% in 2013 compared to 72% in 2012. After-sales increased 25% to US\$260 million in 2013 from US\$208 million for 2012, notably following several large transfer fees.

### *Subsurface Imaging & Reservoir*

Operating revenues from our other GGR business lines increased 49% to US\$711 million in 2013 from US\$478 million in 2012 with the addition of activities from Fugro and a strong demand for high-end imaging. Reservoir and geology activities continued to perform well, driven by complex geologies.

## **Equipment**

Total production of our Equipment segment (including internal and external sales) decreased 13% to US\$1,045 million in 2013, with land representing 57% of sales, from US\$1,204 million in 2012, mainly due to lower demand for marine equipment and the absence of Land mega-crew sales in 2013. Internal sales represented 20% of total revenue in 2013, compared to 21% in 2012.

External revenues for our Equipment segment decreased 13% to US\$834 million in 2013, from US\$954 million in 2012.

### *Operating expenses*

Cost of operations, including depreciation and amortization, increased 11% to US\$2,977 million in 2013, from US\$2,685 million in 2012, mainly due to the integration of Fugro Geoscience Division. The multi-client amortization expenses correspond to 65% of multi-client revenues in 2013, compared to 72% in 2012. As a percentage of operating revenues, cost of operations remains at 79% for both 2013 and 2012. Gross profit increased 9% to US\$791 million in 2013, from US\$729 million in 2012, representing 21% of operating revenues for both periods.

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Research and development expenditures increased 14% to US\$106 million in 2013, from US\$93 million in 2012, representing 3% of operating revenues for both periods.

Marketing and selling expenses increased 24% to US\$119 million in 2013 from US\$96 million in 2012, as a consequence of the integration of Fugro Geoscience Division.

General and administrative expenses increased 18% to US\$216 million in 2013, from US\$183 million in 2012 mainly due to integration costs and non-recurring items related to the Fugro transaction. As a percentage of operating revenues, general and administrative expenses represented 5.7% in 2013, and 5.4% in 2012.

Other revenues and expenses amounted to a net expense of US\$745 million in 2013, mainly due to (i) the Marine business for US\$(721) million, out of which US\$(139) million related to assets impairment and provisions for onerous contracts and US\$(582) million related to goodwill depreciation as a consequence of the 25% fleet downsizing plan and change of market outlook; (ii) the Land business for US\$(79) million of goodwill and assets impairment as a consequence of more overall difficult Land market conditions; (iii) a US\$20 million gain on the sale of our remaining 10% stake in Spectrum ASA; (iv) a US\$85 million gain related to the contribution of our shallow water and OBC assets to the Seabed JV; and (v) other non-recurring expenses for US\$21 million which mainly correspond to acquisition costs related to the Fugro Geoscience transaction. Other net expenses of US\$27 million in 2012 were mainly related to a US\$30 million impairment loss on the Veritas trade name due to the rebranding of our Group as CGG and also Fugro's acquisition costs.

***Equity in income of affiliates***

Income from investments accounted for under the equity method was US\$1 million in 2013 compared to US\$37 million in 2012. The decrease was mainly due to the slow start of our Seabed JV and a lower contribution from Argas.

***Earnings before interest and tax ( EBIT )***

EBIT, as disclosed in note 19 to our consolidated financial statements, amounted to US\$(394) million in 2013 compared to US\$368 million in 2012 as a result of the factors described above. EBIT before non-recurring items linked to Fugro and to Acquisition impairment and write-off amounted to US\$423 million, an increase of 5% compared to US\$404 million in 2012.

EBIT from our Acquisition segment was US\$(744) million in 2013, compared to US\$21 million in 2012. Excluding non-recurring items linked to Fugro and to Acquisition impairment and write-off, EBIT from our Acquisition segment was US\$56 million in 2013, compared to US\$21 million in 2012.

EBIT from our GGR segment was US\$317 million in 2013 compared to US\$183 million in 2012. EBIT margin was 24% in 2013.

EBIT from our Equipment segment was US\$293 million in 2013 from US\$380 in 2012. EBIT margin was 28% in 2013.

***Financial income and expenses***

Cost of net financial debt increased 22% to US\$192 million in 2013 from US\$157 million in 2012 due to the convertible bonds ( OCEANE ) issued in November 2012, the accelerated amortization of issuance costs related to the early partial repayment of our US\$350 million 9 1/2% Senior Notes due 2016 and our borrowings under the vendor loan from Fugro.

Other financial expenses amounted to US\$22 million in 2013 compared to US\$20 million in 2012, mainly due to a US\$6 million call premium paid for the early partial repayment of our US\$350 million 9 1/2% Senior Notes due 2016.

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***Income taxes***

Income taxes decreased to US\$83 million in 2013 from US\$99 million in 2012. Before deferred taxes on currency translation and before US\$(800.0) million of non-recurring items described above and related to the Marine and Land businesses, the effective tax rate was 48% in 2013 compared to 64% in 2012, with both rates being affected by foreign deemed taxation.

***Net income***

Net income was a loss of US\$691 million in 2013 compared to a gain of US\$92 million in 2012 as a result of the factors discussed above. Earnings per share were a loss of US\$3.95 in 2013 compared to a gain of US\$0.46 in 2012.

Net income attributable to the shareholders of CGG SA was a loss of US\$699 million ( 527 million) in 2013 compared to a gain of US\$75 million ( 58 million) in 2012 and a loss of US\$27 million ( 19 million) in 2011.

***Corporate financial statements of CGG SA***

Operating revenues of CGG SA in 2013 were 84 million compared to 78 million in 2012. The level of services provided by the Company to its subsidiaries of the Acquisition and GGR segments slightly increased in 2013.

Operating loss in 2013 amounted to 77 million compared to 57 million in 2012.

Financial income in 2013 amounted to 170 million compared to 154 million in 2012. The increase is the mixed consequence of the main following effect: dividends received for 187 million in 2013 compared to 153 million in 2012, financial income on loans to affiliates of 104 million in 2013 compared to 61 million in 2012, and change in provision on investments in affiliates of 17 million loss in 2013 compared to 51 million profit in 2012.

Extraordinary loss in 2013 amounted to 776 million mainly due to the full depreciation of CGG Services SA shares for 780 million following the write-offs related to certain vessels and as a consequence of the 25% fleet downsizing plan. Extraordinary income in 2012 amounted to 13 million, mainly due to the partial disposal of our investment in Spectrum ASA.

Net loss in 2013, after a tax credit of 20 million due to the French tax group effect, was 664 million compared to a net income of 150 million in 2012 (embedding a tax credit of 39 million).

The shareholders' equity as of December 31, 2013 amounted to 2.4 billion compared to 3.1 billion as of December 31, 2012.

No dividends have been distributed in the last three fiscal years.

**Table of Contents****Year ended December 31, 2012 compared to year ended December 31, 2011*****Operating revenues***

The following table sets forth our operating revenues by business lines and division for each of the periods stated:

	Year ended December 31, 2012 (restated)	Year ended December 31, 2011 (restated)
	(In millions of US dollars)	
Marine acquisition	1,310	1,073
Land and Airborne acquisition	568	445
<b>Acquisition Division Production</b>	<b>1,878</b>	<b>1,518</b>
Multi-client	472	497
Subsurface Imaging and Reservoir	478	442
<b>GGR Division Revenues</b>	<b>950</b>	<b>939</b>
<b>Equipment Division Production</b>	<b>1,204</b>	<b>1,142</b>
Eliminated Production and others	(621)	(418)
<b>Total consolidated</b>	<b>3,411</b>	<b>3,181</b>

Our consolidated operating revenues in 2012 increased 7% to US\$3,411 million from US\$3,181 million in 2011, attributable to growth in all our segments but particularly the Acquisition segment.

**Acquisition**

Total production of our Acquisition segment increased 24% to US\$1,878 million in 2012 from US\$1,518 million in 2011 mainly due to better fleet operational performance.

***Marine acquisition***

Total production of our Marine contract business line in 2012 increased 22% to US\$1,310 million from US\$1,073 million in 2011 due to better operational performance and marine price increase in the second half of the year, partly offset by the fact that more vessels were allocated to multi-client surveys. Our vessel availability and production rates were both 90% in 2012 compared to 86% in 2011, and our 3D vessels were allocated 77% to contract in 2012 compared to 91% in 2011.

***Land and Airborne acquisition***

Total production of our Land contract activities increased 28% to US\$568 million in 2012 from US\$445 million in 2011 mainly due to a strong increase in activity in North America during the summer.

**Geology, Geophysics & Reservoir (GGR)**

Operating revenues from our GGR segment in 2012 increased 1% to US\$950 million from US\$939 million in 2011 mainly due to a sustained activity in Subsurface Imaging and Reservoir.

***Multi-client data***

Multi-client revenues decreased 5% to US\$472 million in 2012 from US\$497 million in 2011.

Prefunding revenues were US\$264 million in 2012 compared to US\$162 million in 2011, up 63% mainly due to a reduced allocation of our 3D fleet to contract activity in 2012, but also due to our activity in the US with the *Marcellus* shale plays program. The cash prefunding rate was 72% in 2012 compared to 80% in 2011.



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### *Subsurface Imaging & Reservoir*

Operating revenues from our Subsurface Imaging & Reservoir business line increased 8% to US\$478 million for the year ended December 31, 2012 from US\$442 million in 2011, driven by sustained demand in high-end imaging and by high levels of activity in our large data processing centers.

### **Equipment**

Total production of our Equipment segment, including intra-group sales, increased 5% to US\$1,204 million in 2012 from US\$1,142 million in 2011, driven by the high level of land equipment sales.

External revenues for our Equipment segment increased 7% to US\$954 million in 2012 from US\$891 million in 2011.

### ***Operating expenses***

Cost of operations, including depreciation and amortization, increased 1% to US\$2,685 million in 2012 from US\$2,649 million in 2011. As a percentage of operating revenues, cost of operations decreased to 79% in 2012 from 83% in 2011. Gross profit increased 36% to US\$729 million in 2012 from US\$535 million in 2011, representing 21% and 17% of operating revenues, respectively.

Research and development expenditures increased 21% to US\$93 million in 2012 compared to US\$77 million in 2011, representing 3% and 2% of operating revenues, respectively.

Marketing and selling expenses increased 16% to US\$96 million in 2012 from US\$83 million in 2011.

General and administrative expenses decreased 10% to US\$183 million in 2012 from US\$202 million in 2011. As a percentage of operating revenues, general and administrative costs represented 5% in 2012 compared to 6% in 2011.

Other expenses, amounting to US\$27 million in 2012, were mainly related to a US\$30 million impairment loss on the Veritas trade name due to the rebranding of our Group from CGGVeritas to CGG and also Fugro's acquisition costs. Other revenues in 2011 amounted to US\$34 million, mainly due to a US\$11 million gain on disposal of assets in relation to the Norfield transaction completed on January 13, 2011 and a US\$19 million gain on the sale of our 2D marine data library in relation to the Spectrum transaction completed on September 15, 2011.

### ***Share of income (loss) in Companies under equity method***

Income from investments accounted for under the equity method was US\$37 million in 2012 compared to US\$16 million in 2011. This increase was mainly attributable to our share in the income of Argas, our joint venture in Saudi Arabia.

### ***Earnings before interest and tax ( EBIT )***

EBIT, as disclosed in note 19 to our consolidated financial statements, amounted to US\$368 million in 2012 compared to US\$224 million in 2011 as a result of the factors described above.

EBIT from our Acquisition segment amounted to US\$21 million in 2012, compared to a loss of US\$179 million in 2011. EBIT margin was 1% in 2012.

EBIT from our GGR segment amounted to US\$183 million in 2012 compared to US\$229 million in 2011. EBIT margin was 19% in 2012.



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EBIT from our Equipment segment amounted to US\$380 million in 2012 from US\$354 million in 2011. EBIT margin was 32% in 2012.

***Financial Income and Expenses***

Cost of net financial debt decreased 10% to US\$157 million in 2012 from US\$175 million in 2011, mainly due to an accelerated amortization for US\$22 million in issuing fees recognized in 2011 related to the redemption of US\$530 million principal amount of our 7<sup>1</sup>/<sub>2</sub>% Senior Notes due 2015 and repayment of the US\$508 million outstanding under our Term Loan B facility.

Other financial expenses were US\$20 million in 2012 compared to an income of US\$1 million in 2011, principally due to a US\$12 million arrangement fee related to a 700 million bridge loan that was available to finance part of the acquisition the Fugro Geoscience Division (though it was not ultimately drawn) and unfavorable currency fluctuations.

***Income taxes***

Income taxes increased to US\$99 million in 2012 from US\$63 million in 2011, mainly due to the increase of our profit before tax. The effective tax rate was 64% in 2012 compared to 187% in 2011, with both rates being affected by foreign deemed taxation.

***Net income (loss)***

Net income was US\$92 million in 2012 compared to a net loss of US\$13 million in 2011, as a result of the factors discussed above.

**Liquidity and capital resources**

Our principal capital needs are for the funding of ongoing operations, capital expenditures (particularly repairs and improvements to our seismic vessels), investments in our multi-client data library and acquisitions.

We intend to fund ongoing operations and debt service requirements through cash generated by operations. Our ability to make scheduled payments of principal, or to pay the interest or additional amounts, if any, on, or to refinance our indebtedness, or to fund planned capital expenditures will depend on our future performance, which, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. Based upon the current level of operations and our near-to mid-term debt repayment schedule, we believe that cash flow from operations, available cash and cash equivalents, together with liquidity available under our new US\$165 million US revolving facility and our new US\$325 million French revolving facility will be adequate to meet our liquidity needs for the next twelve months.

**Cash flows*****Operating activities***

Net cash provided by operating activities was US\$908 million in 2013 compared to US\$921 million in 2012, and US\$790 million in 2011. Before changes in working capital, net cash provided by operating activities in 2013 was US\$964 million compared to US\$860 million in 2012 and US\$673 million in 2011. Changes in working capital had a negative impact on cash from operating activities of US\$56 million in 2013 compared to a positive impact of US\$61 million in 2012, and a positive impact of US\$117 million in 2011.

***Investing activities***

Net cash used in investing activities was US\$1,720 million in 2013 compared to US\$745 million in 2012 and US\$539 million in 2011.

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On January 31, 2013, based on a 703 million gross payment, we paid a total consideration of US\$938 million (including US\$9 million of cash contributed to our Seabed JV), net of US\$24 million of cash acquired, for Fugro Geoscience Division, with the exception of the airborne activity and certain minor assets. The Airborne activity was acquired on September 2, 2013 and was financed by the vendor loan granted by Fugro. Final adjustments, notably for actual levels of working capital, indebtedness and cash position led to a subsequent cash refund of US\$5 million from Fugro to CGG. We paid a total net consideration of US\$933 million for the entire Fugro transaction.

On January 17, 2012, Sercel acquired the assets of Geophysical Research Corporation, LLC with a net investment of US\$53 million, after an initial payment of US\$50 million and an additional payment of US\$3 million in April 2012.

In 2013, our capital expenditures of US\$347 million (including capitalized development costs) were mainly related to marine equipment with notably the purchase of RD sentinel streamers. In 2012, our capital expenditures amounted to US\$369 million (including capitalized development costs) and were mainly related to the upgrade of the seismic vessel *Oceanic Champion* and the purchases of land equipment. In 2011, we upgraded our seismic vessels *Oceanic Phoenix* and *Oceanic Endeavour* and equipped the *Pacific Finder* and the *Oceanic Sirius* with Sentinel streamers, delivered in June and October 2011, respectively.

In 2013, we invested US\$479 million in multi-client data, primarily offshore Brazil and Gulf of Mexico, in the North Sea and onshore US. In 2012, we invested US\$364 million, principally offshore Brazil and Angola, and onshore US. In 2011, we invested US\$203 million.

As of December 31, 2013, the net book value of our multi-client seismic and geologic data library was US\$818 million compared to US\$604 million as of December 31, 2012, and US\$527 million as of December 31, 2011.

***Financing activities***

Our net cash used in financing activities in 2013 was US\$197 million compared to net cash generated of US\$795 million in 2012, and a use of US\$162 million in 2011.

In 2013, a maximum of 110 million from our French revolving facility was drawn, which was also the amount outstanding at the end of the year.

On July 1, 2013, we entered into a 5-year US\$200 million vessel financing, split into two tranches of US\$100 million each, the proceeds of which were used to reimburse on August 21, 2013, the 2013 tranche (in an amount of 112.5 million) of the vendor loan granted by Fugro in connection with the acquisition of the Geoscience Division.

On August 21, 2013, we also redeemed US\$125 million aggregate principal amount of our US\$350 million 9 1/2% Senior Notes due 2016.

In October 2012, we concluded a share capital increase through the distribution of preferential subscription rights to existing shareholders to partially fund the acquisition of Fugro Geoscience Division. The final gross proceeds amounted to 413,609,320, corresponding to the issuance of 24,329,960 new shares.

In November, 2012, we issued bonds convertible into and/or exchangeable for new or existing shares of our company to be redeemed on January 1, 2019 for a total nominal amount of 360 million. We used the net proceeds of the issuance to partially fund the acquisition of Fugro Geoscience Division.

On January 27, 2011, we issued 12,949,640 bonds convertible into and/or exchangeable for new or existing shares of our company to be redeemed on January 1, 2016.

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On March 1, 2011, we redeemed US\$460 million aggregate principal amount of our US\$530 million 7 1/2% Senior Notes due 2015 at a price of 103.75% plus accrued interest, and on June 30, 2011, we redeemed the remaining US\$70 million aggregate principal amount of such notes at a price of 102.5% plus accrued interest. The first redemption was financed through the issuance of convertible bonds described above and the second redemption was financed through the issuance of Senior Notes described immediately below.

On May 31, 2011, we issued US\$650 million principal amount of 6 1/2% Senior Notes due June 1, 2021. The Senior Notes were issued at a price of 96.45% of their principal amount, resulting in a yield of 7%. We used the net proceeds of the issuance to redeem the remainder of our US\$530 million 7 1/2% Senior Notes due May 2015 and to repay in full the US\$508 million outstanding under our Term Loan B facility.

### ***Financing arrangements***

The following is a description of the terms of our material financing arrangements.

#### ***US\$165 million revolving credit agreement (US revolving facility)***

On July 15, 2013, we entered into a new US revolving credit facility of up to US\$165 million with a 5-year maturity. The borrower is CGG Holding (U.S.) Inc. with Credit Suisse acting as administrative agent and collateral agent. This facility was undrawn as of December 31, 2013.

Proceeds of loans under the US revolving facility may be used for the general corporate purposes of the borrower and other subsidiaries of CGG. Revolving loans may be made at any time prior to the final maturity of the US revolving facility.

The obligations of CGG Holding (U.S.) Inc. as borrower under the US revolving facility are guaranteed by us and certain of our subsidiaries. We have pledged first-priority security in the shares of CGG Holding (U.S.) Inc. and certain of our other first-tier subsidiaries. In addition, certain guarantors have provided first-priority security interests in certain of their respective tangible and intangible assets, including (without limitation) certain marine equipment, deposit accounts and intellectual property.

In addition, the US revolving credit facility agreement contains affirmative and negative covenants that affect our ability, among other things, to borrow money, incur liens, dispose of assets and acquisitions and pay dividends or redeem shares. Events of default under the US revolving credit facility include, among other things, payment and covenant breaches, insolvency of us or our subsidiaries, the occurrence of certain events constituting a change of control and certain defaults in respect of other material financial indebtedness.

The US revolving credit facility agreement was amended on July 31, 2013 in order to insert a clause related to anti-corruption law and the EBITDA to total interest costs financial covenant described below.

Pursuant to this agreement, including above amendment, we are required to adhere to certain financial covenants defined as follows:

a maximum ratio of total net financial debt to EBITDA of 3.00:1 for each rolling 12-month period tested at the end of each quarter between September 30, 2013 and June 30, 2018;

and a minimum ratio of EBITDA to total interest costs of 4.00:1 for each rolling 12-month period tested at the end of each quarter September 30, 2013 and June 30, 2018.

Borrowings under US revolving facility bear interest, at the option of the borrower, at the rate of adjusted LIBOR plus 2.50% or the Alternate Base Rate plus 1.50%. The Alternate Base Rate is the higher of Credit Suisse's Prime Rate, the Federal Funds Effective Rate plus one half of 1.00% and the adjusted LIBOR rate for a one-month interest period plus 1.00%.

**Table of Contents*****US\$325 million revolving credit agreement (French revolving facility)***

On July 31, 2013, we entered into a new French revolving credit facility of up to US\$325 million with a 3-year maturity with two extension options of one year each. The borrower is CGG SA with Natixis as Agent. The proceeds of the French revolving facility may be drawn in dollars or in euros, and may be used for the general corporate purposes of the borrower. 110 million was drawn and outstanding as of December 31, 2013.

Pursuant to this agreement, we are required to adhere to certain financial covenants defined as follows:

a maximum ratio of total net financial debt to EBITDA of 3.00:1 for each rolling 12-month period tested at the end of each quarter between September 30, 2013 and June 30, 2016;

and a minimum ratio of EBITDA to total interest costs of 4.00:1 for each rolling 12-month period tested at the end of each quarter between September 30, 2013 and June 30, 2016.

Each cash advance under the French revolving facility must be repaid in full at the end of the relevant interest period of one month to twelve months and is available for redrawing during the availability period. All drawings under the French revolving facility must be repaid on the final maturity date.

Our obligations under the French revolving facility are guaranteed by the same guarantors that guarantee the US revolving credit facility (including CGG Holding (U.S.) Inc.), and are secured by the same security interests granted to secure the obligations under the US revolving credit facility.

The rate of interest on each loan for each interest period is the percentage rate per annum which is the aggregate of the applicable margin and the higher of zero and in relation to any loan in US dollars, LIBOR or in relation to any loan made in euros, EURIBOR.

The applicable margin ranges from 0.70% to 2.80% for loans made in euros and 1.10% to 3.20% for loans made in US dollars, depending on the corporate rating of CGG by Standard & Poor's and the corporate family rating of CGG by Moody's.

**Other Debt Securities*****OCEANE convertible bonds***

On January 27, 2011, we issued 12,949,640 bonds convertible into and/or exchangeable for new or existing shares of our company (the 2016 OCEANE convertible bonds) maturing on January 1, 2016. The 2016 OCEANE convertible bonds' nominal value was set at 27.80 per bond, representing an issue premium of 25% of the CGG reference share price on the regulated market of NYSE Euronext in Paris. The 2016 OCEANE convertible bonds bear interest at a rate of 1.75% payable semi-annually in arrears on January 1 and July 1 of each year. The bonds entitle the holders to receive new and/or existing CGG's shares at the ratio of one share per one bond, subject to adjustments. Under certain conditions, the bonds may be redeemed prior to maturity at our option. We used the net proceeds of the issuance to redeem US\$460 million principal amount of our US\$530 million 7<sup>1</sup>/<sub>2</sub>% Senior Notes due 2015.

On November 20, 2012, we issued 11,200,995 OCEANE convertible bonds maturing on January 1, 2019 for a total nominal amount of 360 million. The 2019 OCEANE convertible bonds' nominal value was set at 32.14 per bond, representing an issue premium of 40% of the CGG reference share price on the regulated market of NYSE Euronext in Paris. The 2019 OCEANE convertible bonds bear interest at a rate of 1.25% payable semi-annually in arrears on January 1 and July 1 of each year. Under certain conditions, the bonds may be redeemed prior to maturity at our option. We used the net proceeds of the issuance to finance part of the purchase price of the Geoscience Acquisition.

**Table of Contents****High yield bonds 7<sup>3</sup>/<sub>4</sub>% Senior Notes due 2017**

On February 9, 2007, we issued US\$400 million in aggregate principal amount of 7<sup>3</sup>/<sub>4</sub>% Senior Notes due 2017. These notes are guaranteed on a senior basis by the same guarantors that guarantee our senior facilities (including CGG Holding (U.S.) Inc.). We used the net proceeds from the notes to repay part of the US\$700 million outstanding under the bridge loan facility used to finance the Veritas acquisition.

**High yield bonds 9<sup>1</sup>/<sub>2</sub>% Senior Notes, due 2016**

On June 9, 2009, we issued US\$350 million principal amount of 9<sup>1</sup>/<sub>2</sub>% Senior Notes due 2016. The Senior Notes were issued at a price of 97.0% of their principal amount, resulting in a yield of 10<sup>1</sup>/<sub>8</sub>%. The Senior Notes will mature on May 15, 2016.

We used the proceeds from the notes to replace cash used to repay US\$100 million of our former Term Loan B facility on May 21, 2009, and to fund the three quarterly US\$27.5 million amortization payments due during the remainder of 2009 under our former Term Loan B facility. The remaining amount enabled Norway subsidiaries CGG Marine Resources Norge AS and CGG Services (Norway) AS (ex Exploration Resources) to reimburse financial debts on seismic vessels amounting to US\$50 million, and to fund ongoing operations. On January 5, 2010, these notes were exchanged for identical notes registered with the SEC.

On August 21, 2013, we redeemed US\$125 million aggregate principal amount of our US\$350 million 9<sup>1</sup>/<sub>2</sub>% Senior Notes due 2016 at a price of 104.75% plus accrued interest. Accelerated amortization of deferred expenditures and penalties for early repayment were recorded for US\$4.3 million and US\$5.9 million, respectively.

**High yield bonds 6<sup>1</sup>/<sub>2</sub>% Senior Notes due 2021**

On May 31, 2011 we issued US\$650 million in aggregate principal amount of 6<sup>1</sup>/<sub>2</sub>% Senior Notes due 2021. These notes are guaranteed on a senior basis by the same guarantors that guarantee our senior facilities (including CGG Holding (U.S.) Inc.). We used the proceeds from the notes to repay the US\$508 million remaining outstanding under the Term Loan B facility of our US senior facilities and to redeem the US\$70 million principal amount remaining outstanding under our 7<sup>1</sup>/<sub>2</sub>% Senior Notes due 2015. On December 8, 2011, these notes were exchanged for identical notes registered with the SEC.

**Other credit facilities****Geomar secured term loan facility**

On April 30, 2007, Geomar entered into a US\$25 million credit facility to refinance the purchase price of the seismic vessel *CGG Alizé*. The facility is secured by a pledge over the vessel. At December 31, 2013, the amount outstanding under this facility was US\$1.8 million. This facility matures on June 5, 2014.

**Fugro vendor loan agreement**

Fugro granted to us a 125 million vendor loan with a 5-year maturity and bearing an interest rate of 5.50% per annum, which was extended to 225 million on the effective date of the acquisition of the airborne business. As of December 31, 2013, we had repaid 112.5 million of the vendor loan, and 112.5 million remained outstanding.

Interest is payable on outstanding principal under the vendor loan agreement at the rate of 5.50% per annum. Scheduled repayment of the first and second vendor loan installments will occur according to an amortization schedule beginning on December 31, 2013 with the final repayment set to occur on January 31, 2018.

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The vendor loan agreement contains customary events of default as well as mandatory prepayment obligations, in certain circumstances, with the proceeds of certain disposals, insurance claims and debt financings. The occurrence of an event of default would allow Fugro to exercise warrants to acquire additional shares of the Seabed Geosolutions BV joint venture, thereby diluting our shareholding in it, with a corresponding decrease in the principal amount due under the vendor loan agreement. We have agreed that our obligations under the vendor loan agreement are to be guaranteed by certain of our subsidiaries that are also guarantors of our Senior Notes.

***Voyager AS (renamed Exploration Vessel Resources II AS) secured term loan facility***

On January 13, 2011, Exploration Vessel Resources II AS entered into a US\$45 million credit facility secured by a pledge over the seismic vessel *Geowave Voyager* and subject to substantially the same covenants as our US revolving credit facility. This facility matures on August 31, 2016.

On December 18, 2013, we amended this facility, in order to align covenant levels with our US\$200 million term loan and revolving facilities described immediately below. The outstanding value at December 31, 2013, was US\$22.2 million.

***US\$200 million term loan and revolving facilities***

On July 1, 2013, CGG Geo Vessels AS entered into a 5-year US\$200 million financing secured by vessel assets (*Geo Coral*, *Geo Caribbean*, *Oceanic Challenger*) split into two tranches of US\$100 million each, the proceeds of which were used in part to reimburse a portion of the vendor loan granted by Fugro, and in part to redeem US\$125 million aggregate principal amount of our US\$350 million 9<sup>1</sup>/<sub>2</sub>% Senior Notes due 2016. We entered into an interest rate swap to fix the annual effective rate at 4.4%.

Pursuant to this agreement, we are required to adhere to certain financial covenants defined as follows:

a minimum of Cash plus Cash Equivalents of not less than US\$75 million, at all times;

a maximum ratio of total net financial debt to EBITDA of 3.00:1.00; and

and a minimum ratio of EBITDA to total interest costs of 3.00:1.00.

As of December 31, 2013, US\$95 million of the revolving facility tranche was drawn and US\$95 million was outstanding under the term loan tranche.

***US\$25 million streamers financing***

On December 19, 2013, we signed a loan agreement to be reimbursed over five years after the deadline for drawing for a maximum amount of US\$25 million with multiple drawings. This loan may be used to finance the acquisition of marine equipment to be delivered in up to twelve monthly installments over a period of one year. This line was undrawn as of December 31, 2013.

***Financial Debt***

Gross financial debt was US\$2,747.6 million as of December 31, 2013, US\$2,305.2 million as of December 31, 2012, and US\$1,942.1 million as of December 31, 2011. Net financial debt was US\$2,217.6 million as of December 31, 2013, US\$785.0 million as of December 31, 2012, US\$1,410.7 million as of December 31, 2011. The ratio of net debt to equity for the years ended December 31, 2013, 2012 and 2011 was 47%, 17% (36% before the impact of the Fugro transaction) and 37%, respectively.

Gross financial debt is the amount of bank overdrafts, plus current portion of financial debt, plus financial debt, and net financial debt is gross financial debt less cash and cash equivalents. Net financial debt is



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presented as additional information because we understand that certain investors believes that netting cash against debt provides a clearer picture of the financial liability exposure. However, other companies may present net financial debt differently than we do. 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.

The following table presents a reconciliation of net financial debt to financing items of the balance sheet at December 31, 2013, 2012 and 2011:

	Year ended December 31,		
	2013	2012	2011
	(In millions of US dollars)		
Bank overdrafts	4.5	4.2	6.0
Current portion of financial debt	247.0	47.8	64.5
Financial debt	2,496.1	2,253.2	1,871.6
<b>Gross financial debt</b>	<b>2,747.6</b>	<b>2,305.2</b>	<b>1,942.1</b>
Less cash and cash equivalents	(530.0)	(1,520.2)	(531.4)
<b>Net financial debt</b>	<b>2,217.6</b>	<b>785.0</b>	<b>1,410.7</b>

**EBIT AND EBITDAS**

EBIT for the years ended December 31, 2013, 2012 and 2011 was US\$(394) million, US\$368 million and US\$224 million, respectively.

EBITDAS for the years ended December 31, 2013, 2012 and 2011 was US\$1,140 million, US\$1,006 million and US\$826 million, respectively.

EBIT is defined as operating income plus our share of income in companies accounted for equity method. EBIT is presented as additional information because our management uses it to capture the contribution to our results of the significant businesses that we manage through our joint ventures.

EBITDAS is defined as earnings before interest, tax, depreciation, amortization net of amortization expense capitalized to multi-client, and share-based compensation cost. 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 one measure used by certain investors to determine our operating cash flow and historical ability to meet debt service and capital expenditure requirements.

However, other companies may present EBIT and EBITDAS differently than we do. EBIT and EBITDAS are not a measure of financial performance under IFRS and should not be considered as an alternative to cash flow from operating activities or as a measure of liquidity or an alternative to net income as indicators of our operating performance or any other measures of performance derived in accordance with IFRS.

The following table presents a reconciliation of EBIT to operating income for the periods indicated:

Unaudited	Year ended December 31,		
	2013	2012	2011
In millions of US\$		(restated)	(restated)
<b>EBIT</b>	<b>(394.3)</b>	<b>368.0</b>	<b>223.6</b>
Less share of income in companies accounted for under equity method	0.6	37.4	16.4
<b>Operating income</b>	<b>(394.9)</b>	<b>330.6</b>	<b>207.2</b>





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The following table presents a reconciliation of EBITDAS to net cash provided by operating activities, according to our cash flow statement, for the periods indicated:

	2013	Year ended December 31, 2012 (restated)	2011 (restated)
	((In millions of US dollars))		
<b>EBITDAS</b>	<b>1,139.7</b>	<b>1,006.2</b>	<b>826.1</b>
Other financial income (loss)	(22.3)	(19.7)	0.8
Variance on Provisions	39.6	(20.1)	(22.6)
Net gain on disposal of fixed assets	(90.3)	(9.4)	(23.6)
Dividends received from affiliates	10.0	48.2	6.9
Other non-cash items	4.5	(0.5)	(22.2)
Income taxes paid	(117.3)	(145.1)	(92.3)
Change in trade accounts receivables	46.5	(49.3)	60.3
Change in inventories and work-in-progress	(46.8)	(46.7)	(14.4)
Change in other current assets	25.5	7.1	40.2
Change in trade accounts payables	(76.9)	113.8	(13.4)
Change on other current liabilities	0.5	37.8	54.3
Impact of changes in exchange rate	(5.0)	(1.4)	(10.2)
<b>Net cash provided by operating activities</b>	<b>907.7</b>	<b>920.9</b>	<b>789.9</b>

**Free cash flow**

We define free cash flow as cash flow from operations minus (i) total net capital expenditures and investments in multi-client surveys set out in our consolidated statement of cash flows under Investing, and (ii) financial expenses paid set out in our consolidated statement of cash flows under Financing.

Free cash flow amounted to outflows of US\$56 million in 2013, inflows of US\$63 million in 2012 and inflows of US\$94 million in 2011.

**Contractual obligations**

The following table sets forth our contractual obligations as of December 31, 2013:

	Payments due by period				Total
	Less than 1 year	2-3 years	4-5 years	After 5 years	
	((In millions of US dollars))				
<b>Long-term debt obligations:</b>					
Repayments: fixed rates	60.7	879.1	547.6	1,146.5	2,633.8
Repayments: variables rates <sup>(9)</sup>	161.5	14.6			176.2
Bonds and facilities interests	126.8	225.6	117.7	108.7	578.8
<b>Total Long-term debt obligations</b>	<b>349.0</b>	<b>1,119.3</b>	<b>665.3</b>	<b>1,255.2</b>	<b>3,388.8</b>
<b>Finance leases:</b>					
Finance lease Obligations: fixed rates	15.2	30.2	30.0	44.9	120.3
Finance lease Obligations: variables rates <sup>(9)</sup>					
<b>Total Finance lease obligations</b>	<b>15.2</b>	<b>30.2</b>	<b>30.0</b>	<b>44.9</b>	<b>120.3</b>

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*Operating leases*<sup>(b)</sup>

Bareboat agreements	227.9	250.4	177.0	152.1	807.4
Other operating lease agreements	84.7	112.4	78.5	128.1	403.7
<b>Total Operating lease obligations</b>	<b>312.6</b>	<b>362.8</b>	<b>255.5</b>	<b>280.2</b>	<b>1,211.1</b>
<b>Total Contractual Obligations</b> <sup>(c)</sup>	<b>676.8</b>	<b>1,512.3</b>	<b>950.8</b>	<b>1,580.3</b>	<b>4,720.2</b>

<sup>(a)</sup> Payments are based on the variable rates applicable as of December 31, 2013.

<sup>(b)</sup> Includes the five-year marine charter agreement signed on June 28, 2011 with Bourbon for six new support vessels of which three were delivered in 2013.

<sup>(c)</sup> Payments in foreign currencies are converted in US\$ at December 31, 2013 exchange rates.

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***Off-balance sheet arrangements***

We have not entered into any other off-balance sheet arrangements that have or are reasonably likely to have a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to investors.

**Trend information**

***Currency fluctuations***

We face foreign exchange risks because a large percentage of our revenues and cash receipts are denominated in US dollars, while a significant portion of our operating expenses and income taxes accrue in euro and other currencies. Movements between the US dollar and euro or other currencies may adversely affect our operating results. More than 75% of our revenue was denominated in US dollars in 2013 and 2012. To a limited extent, the other Western European currencies are principally Euro, British pounds and Norwegian kroner.

Fluctuations in the exchange rate of the US dollar against such other currencies, particularly the euro, have had in the past and will have in the future a significant effect upon our results of operations, which are reported now in US dollars. Since we participate in competitive bids for data acquisition contracts that are denominated in US dollars, the depreciation of the US dollar against the euro harms our competitive position against companies whose costs and expenses are denominated to a greater extent in US dollars. While we attempt to reduce the risks associated with such exchange rate fluctuations through our hedging policy, we cannot assure you that we will maintain our profitability level or that fluctuations in the values of the currencies in which we operate will not materially adversely affect our future results of operations. As of December 31, 2013, we estimated our annual fixed expenses in euros to be approximately 500 million and as a result, an unfavorable variation of US\$0.1 in the average yearly exchange rate between the US dollar and the euro would reduce our operating income and our shareholders equity by approximately US\$50 million.

As of December 31, 2013, we and our subsidiaries whose functional currency is the euro had dollar denominated assets and liabilities of 1,989.0 million and 1,055.9 million, respectively. Our net exchange rate exposure was 933.1 million before hedging and 15.7 million after taking into account hedging arrangements of 923.7 million. As a result of our compliance with IAS 12 Income Taxes, our results of operation are also exposed to the effect of exchange rate variations on our deferred taxes when the functional currency for an entity that owns an asset is not the same as the currency used for tax purposes. This is the case for several Norwegian subsidiaries that own offshore assets (vessels and equipment) for which the functional currency is the US dollar, whereas the taxable currency is the Norwegian kroner.

We attempt to match foreign currency revenues and expenses in order to balance our net position of receivables and payables denominated in foreign currencies. For example, charter costs for our vessels, as well as our most important computer hardware leases, are denominated in US dollars. Nevertheless, during the past five years such dollar-denominated expenses have not equaled dollar-denominated revenues principally due to personnel costs payable in euros.

In addition, to be protected against the reduction in value of future foreign currency cash flows, we follow a policy of selling US dollars forward at average contract maturity dates that we attempt to match with future net US dollar cash flows (revenues less costs in US dollars) expected from firm contract commitments, generally over the ensuing three to six months. At December 31, 2013, 2012, and 2011, we had US\$5 million, US\$35 million and US\$158 million respectively, of notional amounts outstanding under euro/US dollar forward exchange contracts.

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

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### ***Interest rates***

Drawings under our credit facilities incur interest at variable rates that are reset at each interest period (generally between one and 12 months). As a result, our interest expenses vary in line with movements in short term interest rates. However, as of December 31, 2013, 94% of our debt consisted of fixed-rate bonds, and our fixed rate vendor loan from Fugro, along with some fixed-rate finance leases and fixed-rate medium-term bank credit facilities with variable maturities. This debt is not exposed to interest rate fluctuations.

As of December 31, 2013, our net variable-rate assets due in less than one year totaled US\$183 million. Our variable interest rate indebtedness carried an average interest rate of 2.2% in 2013 and our investments and other financial assets earned interest at an average rate of 0.8%. As a result, a 0.8% increase in interest rates would increase our income before tax and shareholders' equity by US\$1.3 million, whereas a 0.8% decrease in interest rates would decrease our income before tax and shareholders' equity by US\$1.3 million.

### ***Inflation***

Inflation has not had a material effect on our results of operations during the periods presented. We operate in, and receive payments in the currencies of, certain countries with historically high levels of inflation, such as Mexico, Brazil and Venezuela. We attempt to limit such risk by, for example, indexing payments in the local currency against, principally, the US dollar exchange rate at a certain date to account for inflation during the contract term.

### ***Income taxes***

We conduct the majority of our activities outside of France and pay taxes on income earned or deemed profits in each foreign country pursuant to local tax rules and regulations.

We have significant tax losses carried forward that are available to offset future taxation on income earned in certain OECD countries. We recognize deferred tax assets when a history of recent taxable profit exists and when the recovery is considered as probable.

### ***Seasonality***

Our land and marine seismic acquisition activities are usually seasonal in nature as a consequence of weather conditions in the Northern Hemisphere and of the timing chosen by our principal clients to commit their annual exploration budget to specific projects. We have historically experienced higher levels of activity in our equipment manufacturing and multi-client operations in the fourth quarter as our clients seek to fully deploy annual budgeted capital.

## **Item 6: DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES**

### **Directors and Senior Management**

#### ***Board of Directors***

Under French law, the Board of Directors determines our business strategy and monitors its implementation. The Board of Directors deals with any issues relating to our affairs, pursuant to the powers granted to it by the Ordinary Shareholders' Meeting. In particular, the Board of Directors prepares and presents our year-end accounts to our Ordinary General Shareholders' Meeting. Our Board of Directors consists of between six and fifteen members elected by our shareholders. Under French law, a director may be an individual or a legal entity for which an individual is appointed as permanent representative.

Our *statuts* (memorandum and articles of association) provide that each director is elected for a four-year term by the Ordinary General Shareholders' Meeting. There is no obligation for directors to be French nationals. According to French corporate law, a physical person may simultaneously hold the office of director in no more than five *sociétés anonymes* whose registered offices are located on French territory, subject to certain exceptions. Pursuant to the Board's internal regulations each director is required to own at least 500 of our shares.

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Directors are required to comply with applicable law and our *statuts*. Under French law, directors are responsible for actions taken by them that, *inter alia*, are contrary to the Company's interests. They may be held liable for such actions both individually and jointly with the other directors.

The following table sets forth the names of our current Directors, their positions, the dates of their initial appointment as Directors and the respective expiry dates of their current term.

Name	Position	Initially appointed	Term expires <sup>(8)</sup>	Number of shares/ ADS held as of December 31, 2013
Robert Brunck <sup>(1)(2)</sup>	Chairman	1998	2016	192,772 shares
Jean-Georges Malcor	Chief Executive Officer & Director	2011	2015	37,360 shares
Olivier Appert <sup>(1)(3)</sup>	Director	2003	2016	2,677 shares
Loren Carroll <sup>(4)</sup> <i>(independent director)</i> <sup>(6)</sup>	Director	2007	2017	500 ADS
Rémi Dorval <sup>(2)(3)(4)(7)</sup> <i>(independent director)</i> <sup>(6)</sup>	Director	2005	2014	580 shares
Agnès Lemarchand <sup>(3)(4)(5)</sup> <i>(independent director)</i> <sup>(6)</sup>	Director	2012	2017	595 shares
Gilberte Lombard <sup>(4)</sup> <i>(independent director)</i> <sup>(6)</sup>	Director	2011	2015	583 shares
Hilde Myrberg <sup>(2)(3)</sup> <i>(independent director)</i> <sup>(6)</sup>	Director	2011	2015	500 shares
Robert Semmens <sup>(1)(3)</sup>	Director	1999	2015	2,992 shares & 965 ADS
Kathleen Sendall <sup>(2)(5)(7)</sup> <i>(independent director)</i> <sup>(6)</sup>	Director	2010	2014	500 ADS
Daniel Valot <sup>(1)(4)(5)</sup>	Director	2001	2016	2,243 shares
Terence Young <sup>(2)(5)</sup> <i>(independent director)</i> <sup>(6)</sup>	Director	2007	2017	500 ADS

<sup>(1)</sup> Member of Strategic Committee.

<sup>(2)</sup> Member of Technology Committee.

<sup>(3)</sup> Member of Appointment-Remuneration Committee.

<sup>(4)</sup> Member of Audit Committee.

<sup>(5)</sup> Member of Health, Safety, Environment & Sustainable Development Committee.

<sup>(6)</sup> Independent director within the meaning of the governance Code of the Association Française des Entreprises Privées – Mouvement des Entreprises de France. See Item 6: Directors, Senior Management and Employees – Board Practices .

<sup>(7)</sup> Renewal of this term of office will be proposed to the Annual General Meeting to be held on June 4, 2014.

<sup>(8)</sup> All current Directors have been appointed pursuant to article L.225-17 of French Commercial Code.

**Mr. Robert Brunck**, 64, has been the Chairman of our Board of Directors since May 1999 and served as Chief Executive Officer until June 30, 2010. From September 1998 to May 1999, Mr. Brunck served as Vice Chairman and President and from February 1995 to September 1998, as President and Chief Operating Officer. Mr. Brunck also served as Vice President of Administration and Development from 1991 to 1995 and Chief Financial Officer from 1989 to 1991. He is Chairman of the *Association pour la Recherche et le Développement des Méthodes et Processus Industriels*, Director of the *Centre Européen d'Éducation Permanente*, Director of the *Ecole Nationale Supérieure de Géologie*, Director of the *Bureau of Geological and Mining Research*, Director of the *Groupement des Entreprises Parapétrolières et Paragazières Association Française des Techniciens du Pétrole (GEP – AFTP)*, and Director and a member of the Appointment and Remuneration Committee of Nexans.

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**Mr. Jean-Georges Malcor**, 57, has been Chief Executive Officer of CGG SA since June 30, 2010 and a Director of CGG SA since May 4, 2011. From January 1, 2010 to June 30, 2010, he served as President of CGG. Mr. Malcor began his career at the Thales group as an acoustic engineer (1983-1987) in the Underwater Activities division, where he was in charge of hydrophone and geophone design and towed streamer programs. He then moved to Sydney-based Thomson Sintra Pacific Australia, becoming Managing Director of the company in 1990. Mr. Malcor became Director of Marketing & Communications (1991), then Director, Foreign Operations of Thomson Sintra Activités Sous-Marines (1993). In 1996, he was appointed Managing Director of Thomson Marconi Sonar Australia which was, in addition to its military activities, the lead developing company for the solid geophysical streamer. In 1999, he became the first Managing Director of the newly formed joint venture Australian Defense Industry. During this time he operated the Sydney based Woolloomooloo Shipyard (the largest dry dock in the southern hemisphere). In 2002, he became Senior Vice President, International Operations at Thales International. From 2004 to 2009, he was Senior Vice President in charge of the Naval Division, supervising all naval activities in Thales, including ship design, building and maintenance. In January 2009, he became Senior Vice President in charge of the Aerospace Division. In June 2009, he moved to the position of Senior Vice President, Continental Europe, Turkey, Russia, Asia, Africa, Middle East, and Latin America. He also serves as Chairman of the Board of Directors of Sercel Holding SA, a member of the Board of Directors of Ardiseis FZCO, of the Arabian Geophysical and Surveying Company (ARGAS) and of Seabed Geosolutions B.V. He is also a Director, member of the Audit Committee and member of the Supervisory Board of STMicroelectronics, a member of the Supervisory Board of Fives SA, General Manager of SCI 1 Australe, Chairman of the Board of Directors of *Universcience Partenaires*, and a Director of Oceanides association.

**Mr. Olivier Appert**, 64, has been Chairman and Chief Executive Officer of IFP Energies Nouvelles (previously named the French Petroleum Institute (Institut Français du Pétrole, or IFP)) since April 2003. Mr. Appert was President for long-term co-operation and energy policy analysis within the International Energy Agency until October 1999. He is also a Director, a member of the Strategic Committee and a member of the Ethics & Governance Committee of Technip, and a Director, a Member of the Audit Committee, a Member of the Strategic Committee and a Member of the Nuclear Commitments Monitoring Committee of EDF.

**Mr. Loren Carroll**, 70, joined our Board of Directors on January 12, 2007. Until that date, Mr. Carroll had been a Director of Veritas since 2003. Mr. Carroll is currently a financial and strategic business consultant. Until his retirement in April 2006, Mr. Carroll was President and Chief Executive Officer of M-I Swaco LLC. and was also Executive Vice President of Smith International, Inc. Mr. Carroll joined Smith International in December 1984 as Vice President and Chief Financial Officer. In January 1988, he was appointed Executive Vice President and Chief Financial Officer of Smith International and served in that capacity until March 1989. Mr. Carroll then rejoined Smith International in 1992 as Executive Vice President and Chief Financial Officer. Smith International held a 60% interest in M-I Swaco L.L.C. Until 2010, he was a Director of Smith International and a member of the Supervisory Board of CGG Holding BV. Mr. Carroll currently serves as a Director, a member of the Audit Committee, a member of the Compensation Committee and Chairman of the Nominating and Corporate Governance Committee of Forest Oil Corporation and Lead Director, member of the Compensation Committee and a Chairman of the Nominating and Corporate Governance Committee of KBR Inc.

**Mr. Rémi Dorval**, 62, is Chairman of *La Fabrique de la Cité*. Until 2010, he was Chief Executive Officer and Director of Soletanche-Bachy Entreprise, Senior Executive Vice President of Soletanche Freyssinet, Director, Chairman and Chief Executive Officer of Solétanche Bachy France, Chairman of Forsol, Chairman of SB 2007, a Director of SHPIC, Bachy Soletanche Holdings, SBUSA, Soldata Iberia and Nicholson. He was also a member of the Supervisory Board of CGG Holding BV. As of December 31, 2013, he was Executive Vice President of VINCI, a company listed on Euronext Paris.

**Ms. Agnès Lemarchand**, 59, joined our Board of Directors on September 21, 2012. She graduated from ENSCP (French engineering school), obtained a Master degree from MIT (chemical engineering) and an MBA from INSEAD. She started her career as a development engineer and production manager within Rhone-Poulenc Santé. In 1986, she was appointed Chief Executive Officer of Industrie Biologique Française, a company of the Rhone Poulenc Group in the US. In 1992, she joined the group Ciments Français as Chief Executive Officer of

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Prodical. In 1997, she joined the Lafarge Group. From 1999 to 2004, she was Chief Executive Officer of Lafarge Lime, the lime business worldwide for Lafarge. In 2005, she led an MBO on the UK lime business and founded Steetley Dolomite Ltd of which she still is Executive Chairman. She currently serves as member of the Supervisory Board, member of the Appointment-Remuneration Committee, member of the Strategy and Investments Committee of Areva, as well as Director and member of the Financial Statements Committee of Saint Gobain, member of the Supervisory Board (two companies listed on Euronext Paris). She is also member of the Supervisory Board, representative of the *Banque Publique d' Investissement (ex-Fonds Stratégique d' Investissement)*, member of the Audit Committee, member of the Appointment and Remuneration Committee of SICLAE and Member of the French *Conseil Economique, Social et Environnemental*.

**Ms. Gilberte Lombard**, 69, joined our Board of Directors on May 4, 2011. She held various financial positions within HSBC France (formerly Credit Commercial de France) from 1990 until her retirement in February 2011. She began her career as a financial analyst and then joined the M&A department of Credit Commercial de France. After Credit Commercial de France was privatized in 1987, she became the investor relations officer in charge of relationships with financial analysts and institutional investors. She also coordinated the information policy for both major bank shareholders and individual bank shareholders from 1987 to 2000. In 2000, she was appointed as head of financial transactions in charge of structuring and implementing sales, acquisitions and mergers for HSBC France (which by now had taken over Credit Commercial de France) and managing its industrial and financial portfolio. She was appointed as Secretary of the Board of Directors in 1990. She was also appointed a member of the board and the Audit Committee of several companies within the HSBC group in France. Ms. Lombard continues to serve as a member of the Supervisory Board, Chairman of the Audit Committee and member of the Remuneration Committee of Zodiac Aerospace, and Director, Chairman of the Remuneration Committee and member of the Audit Committee of Robertet SA, two Euronext Paris-listed companies. Ms. Lombard holds a Masters degree in Economic Sciences and is a graduate of the INSEAD Advanced Management Program.

**Ms. Hilde Myrberg**, 56, joined our Board of Directors on May 4, 2011. Until her retirement in 2012, she held the positions of Senior Vice President of Corporate Governance and Compliance at Orkla ASA, as well as Secretary of the Board, a Norwegian company listed on the Oslo Stock Exchange and operating in branded consumer goods, aluminum solutions, materials, renewable energy and financial investments, where she also served as Secretary of the Board until her retirement in 2012. From 2006 to 2011, she was Executive Vice President at Orkla ASA as the head of corporate functions, including HR, communication, legal and internal audit. Previously, she served as head of the markets sector, including activities ranging from platform to market oil & gas and the power and renewable energy business, at Hydro Oil & Energy until 2006. From 2005 to 2007, she was a Board member of Kongsberg Automotive ASA. From 2006 to 2011, she served as Board member of Borregaard AS, Sapa AB and Orkla Brands AS (Orkla subsidiaries). She had also served as a Director of Renewable Energy Corporation ASA from 2009 to 2012 and as a member of the Supervisory of Jotun AS. She has been a Director and Vice-Chairman of the Board of Petro AS since 2006. She also serves as a Director of Norges Bank AS and Nordic Mining ASA (listed on the Oslo Stock Exchange) and is a member of the Nomination Committee of Det Norske Oljeselskap ASA and NBT AS. Ms. Myrberg holds a law degree from the University of Oslo and an MBA from INSEAD.

**Mr. Robert Semmens**, 56, is an independent consultant, a private investor and adjunct professor of finance at the Leonard N. Stern School of Business (New York University). He was co-founder and General Partner of The Beacon Group LLC from 1993 to 2001. Until 2010, Mr. Semmens was a member of the Supervisory Board of Sercel Holding SA He currently serves as a Director of MicroPharma Ltd., a Director of Bronco Holdings LLC and a Director of DeBusk Holdings LLC.

**Ms. Kathleen Sendall**, 60, joined our Board of Directors on May 5, 2010. She is a mechanical engineering graduate of Queen's University (Ontario), holds an Honorary Doctorate from the University of Calgary and is a graduate of the Western Executive Program. She began her career as a junior process engineer for Petro-Canada in 1978, and then was a project engineer for compressor station design and construction at Nova, an Alberta



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corporation for two years. Mrs. Sendall held various positions within Petro-Canada between 1984 and 1996. From 1996 to 2000, she was Vice President Engineering & Technology, and was Vice President, Western Canada Development & Operations until 2002. Mrs. Sendall was appointed Senior Vice President, North American Natural Gas of Petro-Canada from 2002 to 2009. She was also a Governor on the Board of Governors of the University of Calgary until 2010 and Governor and Chair of the Board of the Canadian Association of Petroleum Producers. Mrs. Sendall is a member of the Association of Professional Engineers and Geoscientists of Alberta (APEGA). She is a member of the Board of Directors and Vice-Chairman of Alberta Innovates - Energy & Environment Solutions, and she also serves as a Director of ENMAX and of the Ernest C. Manning Awards Foundation. She is a member of the Advisory Board of Hatch (Canada). Ms Sendall was invested as a member of the Order of Canada in 2011 and was awarded the Queen's Jubilee Medal in 2012.

**Mr. Daniel Valot**, 69, was Chairman and Chief Executive Officer of Technip from September 1999 until April 2007. Mr. Valot was President of Total Exploration and Production, and was a member of the Total Group Executive Committee from 1995 to 1999. Until 2010, he was a member of the Supervisory Board of CGG Holding B.V. Mr. Valot is a Director, Chairman of the Audit Committee, a member of the Strategy Committee, the Compensation & Nomination Committee and the Risk Committee of SCOR, Director of Dietswell, and a Director, Chairman of the Audit Committee, and a member of the Nomination and Remuneration Committee of Albioma.

**Mr. Terence Young**, 67, joined our Board of Directors on January 12, 2007. Until that date, Mr. Young had been a Director of Veritas since 2005. Mr. Young is currently a professor and head of the Department of Geophysics at the Colorado School of Mines and has served as such since 2000. From 1983 until 2000, Mr. Young was employed by Mobil Research and Development Corporation in a variety of roles, the last of which was as a visiting scholar at the Institute for Statistics and Its Applications, Carnegie Mellon University. From 1982 to 1983, he served as a research geophysicist with Compagnie Générale de Géophysique, from 1979 to 1982, he served as assistant professor, Colorado School of Mines, and from 1969 to 1974 was a pilot and flight instructor in the United States Navy.

### ***Executive Officers***

Under French law and our current *statuts*, the Chief Executive Officer has full executive authority to manage our affairs. The Board of Directors has the power to appoint and remove the Chief Executive Officer at any time. Under French law and our current *statuts*, the Chief Executive Officer has full power to act on our behalf and to represent us in dealings with third parties, subject only to (i) the corporate purpose of the Company, (ii) those powers expressly reserved by law to the Board of Directors or our shareholders and (iii) limitations that the Board of Directors may resolve, such limitations not being binding on third parties. The Chief Executive Officer determines and is responsible for the implementation of the goals, strategies and budgets for our different businesses, which are reviewed and monitored by the Board of Directors. In accordance with French corporate law, our current *statuts* provide for either the election by the Board of Directors of one person to assume the position of Chairman and Chief Executive Officer or the division of such functions between two different persons. In its session of June 30, 2010, the Board of Directors decided to separate the roles of Chairman and Chief Executive Officer. Since that date, Mr. Brunck has held the position of Chairman and Mr. Malcor has held the position of Chief Executive Officer, with both positions to be held until the General Meeting convened to approve the financial statements for the financial year ended December 31, 2013. Our current *statuts* provide also that the Board of Directors may appoint up to five corporate officers (*Directeurs Généraux Délégués*) upon proposal of the Chief Executive Officer, whether or not this person is also the Chairman of the Board. Stéphane-Paul Frydman and Pascal Rouiller were appointed to this position by our Board of Directors on February 29, 2012.

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The following table sets forth the names of members of our Corporate Committee and their current positions with us.

Name	Current position
Jean-Georges Malcor	Chief Executive Officer
Stéphane-Paul Frydman	Senior Executive Vice President, Acquisition Division Corporate Officer
Pascal Rouiller	Senior Executive Vice President, Finance Corporate Officer
Benoît Ribadeau-Dumas	Senior Executive Vice President, Equipment Division Senior Executive Vice President, Acquisition Division
Sophie Zurquiyah	Senior Executive Vice President, Geology, Geophysics & Reservoir

**Mr. Stéphane-Paul Frydman**, 50, was appointed Corporate Officer on February 29, 2012. He is also Group Chief Financial Officer since January 2007. Before that time, he had been Group Controller, Treasurer and Deputy Chief Financial Officer since September 2005, Deputy Chief Financial Officer of the CGG group since January 2004 and Vice President in charge of corporate financial affairs reporting to the Chief Financial Officer since December 2002. Prior to joining CGG, Mr. Frydman was, from April 2000 to November 2002, an Investor Officer of Butler Capital Partners, a private equity firm and from June 1997 to March 2000, Industrial Advisor to the French Minister of the Economy and Finances. Mr. Frydman is currently a Director of Sercel SA, Sercel Holding SA, CGG Services SA, CGG Holding (U.S.) Inc., CGG Eidesvik Ship Management AS and Chairman of the Board of Directors of CGG International SA.

**Mr. Pascal Rouiller**, 60, was appointed Corporate Officer on February 29, 2012. He is also Senior Executive Vice President, Equipment Division since 2010 and Chairman and Chief Executive Officer of Sercel since September 2005 after having served as Chief Operating Officer of the Sercel group since December 1999. Mr. Rouiller was Vice President of our Product segment from October 1995 to December 1999 and Vice President for the Asia-Pacific region from May 1992 to September 1995. Mr. Rouiller is Chief Executive Officer of Sercel Holding, Chairman of the Board of Directors of Sercel (Beijing) Technological Services Co. Ltd. and of Sercel Australia Pty. Ltd., Chairman of the Board of Sercel Canada Ltd., Vice President of Sercel-GRC, Chairman of the Board of Directors of Hebei Sercel Junfeng Geophysical Prospecting Equipment Co. Ltd. and of Sercel Singapore Private Ltd., and Director and Chief Executive Officer of Sercel Inc.

**Mr. Benoît Ribadeau-Dumas**, 41, has been Senior Executive Vice President, Acquisition Division since January 1, 2014. He began his career as a civil servant in French Public Administration. He held a variety of roles including two years as a member of the French Prime Minister's private staff, in charge of administrative reforms and decentralization. In 2004, he joined the aerospace and defense group Thales as Corporate Development Director, in charge of group strategy, mergers and acquisitions and relationships with shareholders. He was then appointed as Head of two operational business lines, first as Managing Director of the Air Traffic Management Systems in 2007, and since 2009, as Chief Executive Officer of Thales Underwater Systems. In September 2010, Mr. Ribadeau-Dumas joined CGG as Executive Vice President, Marine Division. He serves as Chairman and Chief Executive Officer of CGG Services SA, Director of CGG Services (Norway) AS, CGG Marine (Norway) AS, CGG Eidesvik Ship Management AS and CGG Marine Resources Norge AS, as Managing Director of CGG Marine BV and as member of the Management Committee of GeoField Ship Management Services SAS.

**Ms. Sophie Zurquiyah**, 48, has been Senior Executive Vice President, Geology, Geophysics & Reservoir (GGR) since February 4, 2013. She joined CGG after 21 years in the oilfield services industry, working for Schlumberger in P&L and in positions covering R&D and Operations, in France, the United States and Brazil. Her most recent roles include Chief Information Officer (CIO), President of Data and Consulting Services that provided Processing, Interpretation and Consulting services for most of Schlumberger's business lines, and Vice President of Sustaining Engineering that included all support and improvements to commercial products, services and technologies worldwide. She serves as Senior Executive Vice President of CGG Services (U.S.) Inc.

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### Compensation

Pursuant to article L.225-37 of the Commercial Code, the compensation of the Chief Executive Officer and the two corporate officers (*Directeurs Généraux Délégués*) is defined by the Board of Directors upon proposal from the Appointment-Remuneration Committee. The aggregate compensation of the Chief Executive Officer and the two corporate officers (*Directeurs Généraux Délégués*) consists of a fixed element, a bonus and benefits in kind (company car). The bonus for a given fiscal year is determined and paid during the first semester of the following fiscal year.

Since January 1, 2012, the Chairman of the Board of Directors no longer receives variable compensation, Director's fees, stock options or performance shares. His compensation is composed of a fixed element and benefits in kind (company car).

The Chairman of the Board of Directors, the Chief Executive Officer and the two corporate officers (*Directeurs Généraux Délégués*) will be hereinafter referred to as the Executive Officers.

#### *Annual fixed and variable compensation*

##### Chairman of the Board

The gross fixed and variable compensation earned by and paid by the Company and its subsidiaries to Mr. Robert Brunck, Chairman of the Board of Directors, for fiscal years 2012 and 2013 is set forth in the table below:

	2012		2013	
	Amounts earned	Amounts paid	Amounts earned	Amounts paid
<b>Robert Brunck</b>				
<b>Chairman of the Board of Directors</b>				
Fixed compensation	275,000.00	275,000.00	275,000.00	275,000.00
Annual variable compensation	N/A <sup>(*)</sup>	103,125.00 <sup>(1)</sup>	N/A <sup>(*)</sup>	N/A <sup>(*)</sup>
Multi-annual variable compensation	N/A	N/A	N/A	N/A
Exceptional compensation	N/A	N/A	N/A	N/A
Retirement Indemnity	N/A	N/A	N/A	N/A
Director's fees	N/A <sup>(*)</sup>	49,997.56 <sup>(2)</sup>	N/A <sup>(*)</sup>	N/A <sup>(*)</sup>
Benefits in kind	10,412.00	10,412.00	10,440.00	10,440.00
<b>Total</b>	<b>285,412.00</b>	<b>438,534.56</b>	<b>285,440.00</b>	<b>285,440.00</b>

<sup>(1)</sup> Paid in March 2012 for 2011 fiscal year.

<sup>(2)</sup> Paid in January 2012 for 2011 fiscal year.

<sup>(\*)</sup> As from January 1, 2012, Mr. Brunck does not receive any variable compensation or Director's fee.

##### Chief Executive Officer

The variable part of the Chief Executive Officer's compensation is based on the achievement of individual objectives (accounting for a third of the variable compensation) and financial objectives (accounting for two-thirds of the variable compensation). His target amount was set as 100% of his fixed compensation.

For fiscal year 2013, the individual objectives of Mr. Jean-Georges Malcor related to Group governance, integration of Fugro's Geoscience Division, relations with our major customers, shareholders and financial market our promotion and development in the industry, operational performance and human resources.

The financial objectives were related to net earnings per share (25% weighting), Group free cash flow (15% weighting), Group external revenues (20% weighting), Group EBIT (20% weighting) and EBITDA minus tangible and intangible investments made in the course of the fiscal year (20% weighting). His target amount was set as 100% of his fixed compensation.

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In 2013, Mr. Jean-Georges Malcor's objectives were achieved at 41% of the target amount of his variable compensation.

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The gross fixed and variable compensations paid by the Company and its subsidiaries to Mr. Jean-Georges Malcor in fiscal years 2012 and 2013 are set forth below:

Jean-Georges Malcor	2012		2013	
	Amounts earned	Amounts paid	Amounts earned	Amounts paid
<b>Chief Executive Officer</b>				
Fixed compensation	600,000.00	600,000.00	630,000.00	630,000.00
Annual variable compensation	385,795.00	608,502.00 <sup>(1)</sup>	257,040.00	385,795.00 <sup>(2)</sup>
Multi-annual variable compensation <sup>(3)</sup>	N/A	N/A	N/A	N/A
Exceptional compensation	N/A	N/A	N/A	N/A
Director's fees	N/A	N/A	N/A	N/A
Benefits in kind	12,050.00	9,360.00	11,880.00	11,880.00
<b>Total</b>	<b>997,845.00</b>	<b>1,217,862.00</b>	<b>898,920.00</b>	<b>1,027,675.00</b>

<sup>(1)</sup> Paid in March 2012 for fiscal year 2011.

<sup>(2)</sup> Paid in March 2013 for fiscal year 2012.

<sup>(3)</sup> Additional details on the multi-annual variable compensation implemented on June 24, 2014 are provided below. No compensation was earned or paid pursuant to this mechanism in 2013.

Corporate Officers (Directeurs Généraux Délégués)

*Stéphane-Paul Frydman*

The variable part of Mr. Stéphane-Paul Frydman's compensation is based on the achievement of individual objectives (accounting for a third of the variable compensation) and financial objectives (accounting for two-thirds of the variable compensation). His target amount was set as 75% of his fixed compensation.

For fiscal year 2013, the individual objectives of Mr. Stéphane-Paul Frydman related to Group governance, internal control, management of our Financial resources, relations with investors and the financial market as a whole, strategy and management of our capital employed and human resources.

The financial objectives were related to net earnings per share (25% weighting), Group free cash flow (15% weighting), EBITDA minus tangible and intangible investments made in the course of the fiscal year (20% weighting), Group external revenues (20% weighting) and Group EBIT (20% weighting).

In 2013, Mr. Stéphane-Paul Frydman's objectives were achieved at 46% of the target amount of his variable compensation.

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The gross fixed and variable compensations paid by the Company and its subsidiaries to Mr. Stéphane-Paul Frydman, appointed Corporate Officer on February 29, 2012, in fiscal years 2012 and 2013 are set forth below:

Stéphane-Paul Frydman	2012		2013	
	Amounts earned	Amounts paid	Amounts earned	Amounts paid
<b>Corporate Officer</b>				
Fixed compensation	320,000.00	320,000.00	336,000.00	336,000.00
Fixed compensation as Executive Officer	80,000.00	66,660.00	80,000.00	80,000.00
Profit sharing <sup>(1)</sup>	4,022.00	N/A	N/A <sup>(2)</sup>	4,022.00 <sup>(3)</sup>
Annual variable compensation	174,538.00	194,952.00 <sup>(1)</sup>	142,896.00	174,538.00 <sup>(4)</sup>
Multi-annual variable compensation <sup>(5)</sup>	N/A	N/A	N/A	N/A
Exceptional compensation	N/A	N/A	N/A	N/A
Director's fees	N/A	N/A	N/A	N/A
Benefits in kind	4,800.00	4,800.00	4,800.00	4,800.00
<b>Total</b>	<b>579,338.00</b>	<b>586,412.00</b>	<b>563,696.00</b>	<b>599,360.00</b>

<sup>(1)</sup> Paid pursuant to the profit sharing agreement dated June 20, 2012. Corporate officers benefit from this profit sharing agreement by virtue of their employment agreement.

<sup>(2)</sup> The amount of profit sharing is known in June of the following year.

<sup>(3)</sup> Paid in July 2013 for fiscal year 2012.

<sup>(4)</sup> Paid in March 2012 for fiscal year 2011.

<sup>(5)</sup> Paid in March 2013 for fiscal year 2012.

<sup>(3)</sup> Additional details on the multi-annual variable compensation implemented on June 24, 2014 are provided below. No compensation was earned or paid pursuant to this mechanism in 2013.

*Pascal Rouiller*

The variable part of Mr. Pascal Rouiller's compensation is based on the achievement of individual objectives (accounting for a third of the variable compensation) and financial objectives (accounting for two-thirds of the variable compensation). His target amount was set as 75% of his fixed compensation.

For fiscal year 2013, the individual objectives of Mr. Pascal Rouiller related to HSE, our group performance plan, technology, strategic development of the Equipment Division and human resources.

The financial objectives were related to net earnings per share (25% weighting), Group free cash flow (15% weighting), Group EBITDA minus tangible and intangible investments made during the fiscal year (10% weighting), Equipment EBITDA minus tangible and intangible investments made during the fiscal year (10% weighting), Equipment Division production (20% weighting), Group EBIT (10% weighting) and Equipment Division EBIT (10% weighting).

In 2013, Mr. Pascal Rouiller's objectives were achieved at 56% of the target amount of his variable compensation.

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The gross fixed and variable compensations paid by the Company and its subsidiaries to Mr. Pascal Rouiller, appointed Corporate Officer on February 29, 2012, in fiscal years 2012 and 2013 are set forth below:

Pascal Rouiller	2012		2013	
	Amounts earned	Amounts paid	Amounts earned	Amounts paid
<b>Corporate Officer</b>				
Fixed compensation	320,000.00 <sup>(1)</sup>	320,000.00 <sup>(1)</sup>	336,000.00 <sup>(1)</sup>	336,000.00 <sup>(1)</sup>
Fixed compensation as Executive Officer	80,000.00	66,660.00	80,000.00	80,000.00
Profit sharing <sup>(2)</sup>	3,845.00	N/A	N/A <sup>(3)</sup>	3,845.00 <sup>(4)</sup>
Annual variable compensation	175,084.00	251,013 <sup>(5)</sup>	162,448.00	175,084.00 <sup>(6)</sup>
Multi-annual variable compensation <sup>(7)</sup>	N/A	N/A	N/A	N/A
Exceptional compensation	N/A	N/A	N/A	N/A
Director's fees	N/A	N/A	N/A	N/A
Benefits in kind	5,280.00	5,280.00	5,280.00	5,280.00
<b>Total</b>	<b>592,364.00</b>	<b>654,953.00</b>	<b>583,728.00</b>	<b>600,209.00</b>

<sup>(1)</sup> Including 12,000 paid pursuant to his position as Executive Officer in Sercel SA.

<sup>(2)</sup> Paid pursuant to the profit sharing agreement dated June 20, 2012. Corporate officers benefit from this profit sharing agreement by virtue of their employment agreement.

<sup>(3)</sup> The amount of profit sharing is known in June of the following year.

<sup>(4)</sup> Paid in July 2013 for fiscal year 2012.

<sup>(5)</sup> Paid in March 2012 for fiscal year 2011.

<sup>(6)</sup> Paid in March 2013 for fiscal year 2012.

<sup>(7)</sup> Additional details on the multi-annual variable compensation implemented on June 24, 2014 are provided below. No compensation was earned or paid pursuant to this mechanism in 2013.

**Multi-annual bonus plan in the form of performance units**

On June 24, 2013, the Board of Directors of the Company, upon the Appointment-Remuneration Committee's proposal, implemented a multi-annual bonus system in the form of performance units, replacing the performance shares plans with a twofold objective:

Implement a globally harmonized remuneration mechanism consistent with the growing internalization of our Group, and

Establish a closer link between the remuneration of the main senior executives and the share price performance and the economic performance of the Group taken as a whole on a mid-term basis (3 years).

The Corporate Committee members (including the Chief Executive Officer and the Corporate Officers) along with the senior executives of the Group and certain employees contributing to the Group performance or with a strong evolution potential within the Group are eligible to the plan.

The performance units vest upon the expiry of a 3-year period from the allocation date subject to a presence condition in the Group at the time of vesting and achievement of certain performance conditions. These performance conditions are based on the achievement of Group objectives related to the return on capital employed and balance sheet structure along with achievement of Divisions' financial objectives aligned with the Group strategic orientations over a 3-year period.

The number of vested 2013 performance units is based on achievement of the Group objectives up to 60% of the global allocation. The balance is allocated based on the achievement of the Divisions' objectives.

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The valuation of each vested 2013 performance unit shall be equal to the average closing price of CGG shares on Euronext over the five trading days prior to the vesting date. The vested performance units will be paid half in cash and half in existing CGG shares.



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The performance units allocated to the Chief Executive Officer and the Corporate Officers by the Board of Directors on June 24, 2013, are set forth below:

Name of the Executive Officer	Date of Board Meeting	Maximum number of Performance Units	Valuation of performance units pursuant to the method used for consolidated financial statements ( )	Acquisition date
Jean-Georges MALCOR	06.24.2013	27,500	462,000	06.24.2016
<i>Chief Executive Officer</i>				
Stéphane-Paul FRYDMAN	06.24.2013	12,500	210,000	06.24.2016
<i>Corporate Officer</i>				
Pascal ROUILLER	06.24.2013	12,500	210,000	06.24.2016
<i>Corporate Officer</i>				
<u>Corporate Committee</u>				

The compensation of members of Corporate Committee, as of December 31, 2013, consists of a fixed element and a bonus.

The variable part of this compensation is based on the achievement of Group's financial objectives such as the operating income, free cash flow and external revenues of the Group, as well as on the achievement of commercial and financial objectives within the Division headed by the related member of the Corporate Committee. This variable part is also based on the achievement of qualitative individual objectives.

Considering the importance of this variable part, the amount of the Corporate Committee members' compensation may significantly vary from one year to another. The variable part is set and paid the following year, in March.

The aggregate compensation of our Corporate Committee, including the Executive Officers paid in fiscal year 2013 was 3,842,586 including the benefits in kind but excluding Directors' fees, if any.

**Contractual indemnity in case of termination**Chief Executive Officer

The Board of Directors of May 10, 2012, having renewed the term of office of Mr. Jean-Georges Malcor for a two-year period, i.e. until the General Meeting convened to approve the financial statements for the financial year ended December 31, 2013, also renewed for the duration of this office, the terms and conditions of the advantages granted to Mr. Jean-Georges Malcor in case of termination of its term of office as they had been approved by the Board of Directors of February 24, 2011 and ratified by the General Meeting of May 4, 2011. These benefits were ratified by the General Meeting of May 3, 2013.

These advantages are the following:

Mr. Jean-Georges Malcor does not benefit from any contractual termination indemnity, except in case of a forced departure relating to a change of control or a change of strategy. Such indemnity shall be equal to the difference between:

- (i) a gross amount of 200% of the gross fixed compensation paid by the Company to Mr. Jean-Georges Malcor during the twelve-month period preceding his departure date, to which is added the annual average of the variable compensation paid by the Company to

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Mr. Jean-Georges Malcor over the thirty-six-month period preceding his departure date, (hereinafter the Reference Annual Compensation ), and

- (ii) any sum to which Mr. Jean-Georges Malcor may be entitled as a result of such termination, including any sums to be paid further to the application of his non-competition commitment.

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The indemnity global amount shall not exceed 200% of the Reference Annual Compensation.

Pursuant to article L.225-42-1 of the Commercial Code, the payment of the special termination indemnity referred to hereinabove shall remain subject to the achievement of the following performance conditions, related to the Company's performance:

The average, calculated over the 60 trading days preceding the departure date, of the ratio of the CGG ADS price over the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index shall equal at least two-thirds of the same average ratio over the same 60-day period four years before the date on which Mr. Malcor leaves the Group;

The average, calculated over the 60 trading days preceding the departure date, of the ratio of the CGG share price over the SBF 120 index shall equal at least two-thirds of the same average ratio over the same 60-day period four years before the date on which Mr. Malcor leaves the Group;

The average margin rate of the Group EBITDAS over the four years preceding the date on which Mr. Malcor leaves the Group shall be at least 25%.

Payment of the full amount of the special termination indemnity is subject to the fulfillment of two conditions out of three. In case only one condition is fulfilled, then Mr. Jean-Georges Malcor will be entitled to receive only 50% of the said special termination indemnity.

Finally, pursuant to said article L.225-42-1 of the Commercial Code in particular, the Board of Directors shall verify prior to the payment of the special severance payment (i) that the performance conditions described above are duly fulfilled and (ii) that the payment of such special termination indemnity complies with the corporate governance code applicable at the date of departure.

**Corporate Officers** (*Directeurs Généraux Délégués*)

The benefits granted to Messrs. Frydman and Rouiller in case of their departure from the Group were approved by the Board of Directors on February 29, 2012 and ratified by the General Meeting on May 10, 2012. They include the following:

Messrs. Frydman and Rouiller will benefit from a special termination indemnity in the event of a forced departure relating to a change of control or a change of strategy. The amount of this indemnity is set at the difference between (i) a gross amount equal to 200% of their reference annual compensation and (ii) any amounts to which they may claim entitlement in case of departure from the Group, particularly, the indemnities that could be paid in connection with their non-compete agreement referred to below. The global amount of such special termination indemnity shall not exceed 200% of the reference annual compensation.

In accordance with Article L.225-42-1 of the French Commercial Code, payment of the special termination indemnity is subject to performance conditions to be assessed with regard to the Company's performance based on the fulfillment of at least two of the following three objectives:

The average of the ratio between the CGG ADS price over the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index over the 60 trading days preceding the date of departure shall equal at least two-thirds of the same average ratio assessed over the same period of 60 trading days four years before the beneficiary leaves the Group;

The average of the ratio of the CGG share price over the SBF 120 index over the 60 trading days preceding the date of departure shall equal at least two-thirds of the same average ratio assessed over the same period of 60 trading days four years before the beneficiary leaves the Group;

The average Group EBITDAS margin over the 4 years preceding the date of departure shall be at least 25%.



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Payment of the full amount of the special termination indemnity is subject to the fulfillment of two conditions out of three. Should only one of the objectives be fulfilled, then the Beneficiary would only be entitled to 50% of his special termination indemnity.

Finally, pursuant to said article L.225-42-1 of the Commercial Code in particular, the Board of Directors shall verify prior to the payment of the special severance payment (i) that the performance conditions described above are duly fulfilled and (ii) that the payment of such special termination indemnity complies with the corporate governance code applicable at the date of departure.

### **Non-compete agreement**

#### **Chief Executive Officer**

On June 30, 2010, the Board of Directors approved, in accordance with procedures applicable to related party agreements and provided for by section L.225-38 et seq. of the French Commercial Code, the signature of a non-compete agreement between the Company and Mr. Jean-Georges Malcor. This agreement was ratified by the General Meeting held on May 4, 2011.

This non-compete agreement applies to any geophysical data acquisition, processing or interpretation services or the provision of equipment or products designed for the acquisition, processing or interpretation of geophysical data. Mr. Jean-Georges Malcor has agreed that he will not contribute to projects or activities in the same field as those in which he was involved at CGG for period of eighteen months starting on the date on which he leaves the Group.

In consideration for this undertaking, Mr. Jean-Georges Malcor will be entitled to receive compensation corresponding to 100% of his annual reference compensation as defined in the protection letters related to payment of the contractual indemnity in case of termination of his office.

#### **Corporate Officers (Directeurs Généraux Délégués)**

On February 29, 2012, the Board of Directors approved, in accordance with procedures applicable to related party agreements and provided for by section L.225-38 et seq. of the French Commercial Code, the signature of a non-compete agreement between the Company and Messrs. Frydman and Rouiller.

This non-compete agreement applies to any geophysical data acquisition, processing or interpretation services or the provision of equipment or products designed for the acquisition, processing or interpretation of geophysical data. Messrs. Frydman and Rouiller have agreed that they will not contribute to projects or activities in the same field as those in which they were involved within the Group.

In consideration of this non-compete agreement, for a period of 18 months starting on the day on which they leave the Group, Messrs. Frydman and Rouiller would receive compensation corresponding to 100% of their annual reference remuneration as defined in their protection letter. This agreement was ratified by the General Meeting on May 10, 2012.

### **General benefits plan**

#### **Chief Executive Officer**

On June 30, 2010, the Board of Directors approved, in accordance with procedures applicable to related party agreements and provided for by section L.225-38 et seq. of the French Commercial Code, the extension to Mr. Robert Brunck and Mr. Jean-Georges Malcor of the benefit of the Group's general benefits plan applicable to all employees. This agreement was ratified by the General Meeting held on May 4, 2011.

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### **Corporate Officers (Directeurs Généraux Délégués)**

On February 29, 2012, the Board of Directors, in accordance with procedures applicable to related party agreements and provided for by section L.225-38 et seq. of the French Commercial Code, the application of the collective benefit plan applicable to all employees of the Group to Messrs. Frydman and Rouiller. This agreement was ratified by the General Meeting on May 10, 2012.

### **Individual benefits plan**

On June 30, 2010, the Board of Directors approved, in accordance with procedures applicable to related party agreements and provided for by section L.225-38 et seq. of the French Commercial Code, the execution of a supplementary individual benefits plan benefiting to Mr. Jean-Georges Malcor. In this respect, the Board of Directors authorized the Company to pay an initial amount of 43,000. This agreement was ratified by the General Meeting held on May 4, 2011. This plan took effect in September 2011, for a period ending on December 31, 2014.

In addition, on November 30, 2011, and pursuant to the procedure applicable to related-parties agreement set forth by section L.225-38 and seq. of the French Commercial, the Board of Directors authorized the final execution of this agreement as per the final conditions proposed by the insurer and authorized as well the Company to pay an additional amount of 40,000 for the whole duration of the agreement. This agreement was ratified by the General Meeting on May 10, 2012. This new agreement was concluded on December 20, 2011. It replaces the agreement that took effect in September 2011 and which had been authorized on June 30, 2010.

### **Individual insurance covering loss of employment**

Pursuant to the procedure applicable to related-parties agreement set forth by section L.225-38 and seq. of the French Commercial Code, the Board of Directors authorized, on June 30, 2010, the Company to subscribe with GSC Gan, as from July 1, 2010, an individual insurance policy covering loss of employment, in favor of Mr. Jean-Georges Malcor. The annual subscription fee payable by the Company amounts to 10,137 for 2013. This insurance provides for the payment of a maximum of 13% of his 2013 target compensation (corresponding to 162,941), for a duration of 12 months. This agreement was ratified by the General Meeting held on May 4, 2011.

### **Supplemental Retirement Plan**

A supplemental retirement plan for the members of the Executive Committee of the Group (as composed prior to February 1, 2013) and the Management Board of Sercel Holding (as composed prior to April 19, 2012) (whom we refer to here as the Beneficiaries ) was implemented on January 1, 2005. The Chief Executive Officer and the corporate officers benefit from this plan. It is an additive defined benefit plan with a cap. Accruals are acquired per year of services, with a ceiling of twenty years.

Further, to participate in the plan, the Beneficiaries shall comply with the main following cumulative conditions:

have liquidated their social security pension and all possible other rights to pensions,

have at least 5 years of service as member of the Executive Committee of the Group (as composed prior to February 1, 2013) or of the Management Board of Sercel Holding (as composed prior to April 19, 2012) and until they were 55 years of age, and

end their professional career when leaving the Company.

The conditions relating to the age and length of service are assessed taking into account the service continuity within the new governance bodies of the Group.

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As of December 31, 2013, the Company's commitment under the supplemental retirement plan corresponds for Mr. Jean-Georges Malcor, Chief Executive Officer, Mr. Stéphane-Paul Frydman and Mr. Pascal Rouiller, Corporate Officers, to an annual pension equal to 16%, 27% and 21% of their annual 2013 target compensation, respectively.

The aggregate present benefit value of this supplemental plan as of December 31, 2013 was 14,963,043 of which 1,013,186 has been recorded as an expense for fiscal year 2013. Of such present benefit value, the portions relating to (i) Mr. Jean-Georges Malcor, Chief Executive Officer, are 1,162,351 and 334,336 respectively, (ii) Mr. Stéphane-Paul Frydman, Corporate Officer, are 901,881 and 87,466 respectively and (iii) Mr. Pascal Rouiller, Corporate Officer are 2,536,739 and 104,606 respectively.

**Directors' compensation**

Directors as a group received aggregate compensation of 730,000 in January 2014 for services provided in their capacity as Directors during fiscal year 2013. This amount is divided into a fixed and variable component on the basis of two-thirds of the basic amount for function and one-third for presence as described hereafter. The basic amount is set at 580,000 plus a lump sum, amounting to 150,000 allocated as described hereafter. No amounts were set aside or accrued by us or our subsidiaries to provide pension, retirement or similar benefits to Directors. Directors' service contracts do not provide for benefits upon termination.

Allocation of the basic amount:

The fixed component is calculated on the basis of one share for each Director and an additional share as a committee member. The remuneration of any Director appointed in the course of the year is calculated on a pro-rata temporis basis.

The variable component linked to the participation in committees and Board meetings is calculated on the basis of one share for each meeting of the Board, its committees or the Joint Committees attended, with a 1.5 share for Board or Committee Chairs (this rule will apply as well to a Chairman attending a joint committee meeting of all committees). A Director who participates in a Board committee's meeting as a guest does not receive any fee.

Allocation of the lump sum:

In addition, a lump sum is allocated as follows:

20,000 for each Director residing outside France, i.e. a global amount of 120,000;

10,000 for the Chairman of the Audit Committee;

5,000 for each other Audit Committee's member, i.e. a global amount of 20,000.

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The following table sets forth the amounts CGG paid to its Directors, for the year ended December 31, 2013:

Name	Amount paid to CGG s directors for fiscal year 2013	Amount paid to CGG s directors for fiscal year 2012
Olivier Appert	51,288.34	51,013.79
Loren Carroll	67,515.15	64,085.30
Rémi Dorval	82,539.85	65,854.44
Jean Dunand	25,146.45	55,375.25
Agnès Lemarchand	67,826.40	12,847.76
Gilberte Lombard	54,411.11	46,071.60
Hilde Myrberg	74,141.97	70,447.68
Denis Ranque <sup>(1)</sup>	N/A	38,424.62
Robert F. Semmens	74,141.97	72,337.99
Kathleen Sendall	75,212.08	73,662.19
Daniel Valot	90,768.63	49,289.36
David Work <sup>(2)</sup>	N/A	58,923.12
Terence Young	67,007.90	65,054.89

<sup>(1)</sup> Resigned from his duties as Director of the Company on October 27, 2012.

<sup>(2)</sup> Resigned from his duties as Director of the Company on September 1, 2012.

Pursuant to applicable law, Directors, except the Chief Executive Officer, are not entitled to be allocated stock options and/or performance shares of the Company. As from fiscal year 2012, Mr. Robert Brunck, Chairman of the Board of Directors, is not entitled to any stock options or performance shares.

As of December 31, 2013, our Directors and Executive Officers held an aggregate of 306,681 shares and 2,465 ADS of CGG. As of December 31, 2013, none of our Directors and Executive Officers held, on an individual basis, shares and options representing 1% or more of our outstanding capital.

On March 26, 2014, the Board of Directors decided to revise the allocation method of the Directors' fees to take into account the new provision of the AFEP-MEDEF code, which specifies that the variable part of the Directors' fees must predominate. The Board therefore decided that, starting 2014, this variable part, based on the actual attendance to the meetings, would represent two third of the Directors' fees and would be based on presence.

**Board practices**

The Company complies with the AFEP-MEDEF Code of corporate governance for listed companies (the AFEP-MEDEF Code). This Code is available on the website of the MEDEF ([www.medef.fr](http://www.medef.fr)).

In its meeting held on February 26, 2014, the Board resolved that seven out of the twelve directors who were sitting on the Board at that time qualified as independent (i.e. half of the Board members which is compliant with the recommendation of the AFEP-MEDEF Code). The AFEP-MEDEF Code recommends that independent directors should account for half the members of the Board of Directors in widely-held corporations without controlling shareholders. Those directors are Mrs. Agnès Lemarchand, Gilberte Lombard, Hilde Myrberg and Kathleen Sendall and Messrs. Loren Carroll, Rémi Dorval, and Terence Young.

The Board of Directors carries out any controls and checks it deems appropriate.

In 2013, the Board of Directors of the Company met eight times. The average attendance rate of directors at these meetings was 90%.





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During these meetings, the Board, among others, approved the Company's annual financial statements and the 2012 consolidated annual financial statements and reviewed the interim quarterly and half-year results for fiscal year 2013 and the 2013 forecasts and the 2014 pre-budget.

The Board also convened the General Meeting of shareholders held on May 2013 and approved the reports and resolutions to be submitted to shareholders' approval.

The Board approved the modification of the composition of some committees, appointed the Chairman of the Audit Committee and its Financial Expert, reviewed the qualification of directors as independent, reviewed the HSE-Sustainable Development Committee charter, and acknowledged the presentation relating to the Company's policy relating to the comparative general conditions of employment and training of women and men in the Group (Article L.2323-47 of the French Labor Code) and the plan for gender equality at work.

The Board approved the 2013 variable compensation components of the Senior Executive Officers.

The Board also decided to implement (i) a stock options plan for certain employees of the Group and a specific plan for the three Senior Executive Officers and the members of the corporate committee, subject to performance conditions in conformity with the AFEF-MEDEF Code, and (ii) a performance unit plan for certain employees of the Group and the Senior Executive Officers. The Board also determined that (i) the performance conditions set out in the performance share allocation plan dated March 24, 2011 were partially met and finally allocated such shares and (ii) determined that the performance conditions applicable respectively to the third and second batches of the stock option plans dated March 22, 2010 and March 24, 2011 applicable to the Senior Executive Officers were met.

With respect to financial and strategic transactions, the Board also authorized (i) the signature of the loan agreement and warrant agreement in the context of the acquisition of Fugro's Geoscience Division, (ii) the amendment to the vendor loan agreement with Fugro, (iii) refinancing of the French and US revolving credit agreements, (iv) the implementation of a financing agreement with Nordea, (v) the partial redemption of the 9<sup>1</sup>/<sub>2</sub>% Senior Notes due 2016.

### ***Appointment-Remuneration Committee:***

#### **Responsibilities:**

The responsibilities of this Committee in terms of propositions and/or recommendations to be made to the Board of Directors relate to:

1. the compensation to be paid to the Senior Executive Officers ( *mandataires sociaux* ) to be appointed from time to time, including the procedures for setting the variable part thereof and the grant of possible benefits in kind;
2. all provisions relative to the retirement of the Senior Executive Officers considered as *mandataires sociaux* ;
3. for the *mandataires sociaux* , the deferred elements of the compensation packages (pension, severance payment) to be submitted to the shareholders' annual meeting;
4. the evaluation of financial consequences on the Company's financial statements of all compensation elements for *mandataires sociaux*;
5. the contracts between the Company and a *mandataire social* ;
6. the possible candidacies for filling director's positions, positions as Senior Executive Officer considered as *mandataire social* or positions as a member of a Board Committee.

7. the periodical review of the independence of Board members;

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8. the Directors' fees level and their allocation rules;
9. the realization of capital increases reserved for the employees; and
10. the installation of cash and/or share compensation plans.

In addition to the assignments here above described, this Committee is also in charge of:

1. examining compensation of the Corporate Committee members ( C-Com ) and its evolution;
2. carrying out performance evaluation of the Board and its committees;
3. carrying out performance evaluation of the Chairman of the Board and the Chief Executive Officer;
4. reviewing the succession planning process of C-Com Committee members;
5. ensuring compliance of compensation and benefits policies with all applicable regulations;
6. reviewing the compensation data and other related information to be publicly disclosed by the Company in its annual reports and any other reports to be issued pursuant to applicable laws and regulations; and
7. approving the policy and process of verifying and reimbursing expenses of the directors and the Senior Executive Officers ( *mandataires sociaux* ).

The Committee may also consider any question submitted to it by the Chairman in connection with one of the matters mentioned above.

The work of the Committee is recorded in its minutes. The committee reports to the Board on its proceedings after each meeting.

**Composition:**

As of the date of this report, the members of the Committee are as follows:

Rémi Dorval (Chairman)<sup>(\*)</sup>

Olivier Appert

Robert Semmens

Agnès Lemarchand<sup>(\*)</sup>

Hilde Myrberg<sup>(\*)</sup>

<sup>(\*)</sup> independent director

In compliance with the AFEP-MEDEF Code, this Committee is composed of a majority of independent directors.

Activity:

In 2013, this Committee met seven times. The average meeting attendance rate was 94%.

During these meetings, the Committee examined, inter alia, (i) the remuneration of the Chairman of the Board, of the Chief Executive Officer and of the Corporate Officers ( *Directeurs Généraux Délégués* ) and their 2013 objectives, (ii) the compensation of the other members of the C-Com, (iii) the amount of the Directors' fees and their allocation rules, (iv) the implementation of the new LTI program, (v) the report on the qualification of Directors as independent prior to its submission to the Board of Directors, (vi) the paragraphs in the annual reports (including the management report, *Document de Référence* and our annual report on Form 20-F) regarding the compensation of the *mandataires sociaux*, (vii) the 2013 bonus plans, (viii) the succession planning of E-Com and M-Com members, (ix) the implementation of the evaluation process for the Board, the Chairman and the Chief Executive Officer, (x) the composition of Board committees.

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### ***Strategic Planning Committee:***

#### **Responsibilities:**

The responsibilities of the Strategic Planning Committee relate to the following:

business plans and budgets,

strategic options for the Company,

organic development, and

projects related to financial transactions.

This Committee customarily meets before each Board meeting and more often if necessary.

#### **Composition:**

As of the date of this report, the members of the Committee are as follows:

Robert Brunck (Chairman)

Olivier Appert

Robert Semmens

Daniel Valot

#### **Activity:**

During 2013, the Strategic Planning Committee met nine times. The average attendance rate of Committee members was 86%.

During these meetings, the Committee was consulted regarding, inter alia, (i) the 2013 budget, (ii) the 2013-2014 business plans, (iii) marine pricing evolution and Fugro's fleet integration, (iv) the Group shareholding structure, (v) the economic environment of the seismic industry, (vi) the prospects for the multi-client market and the positioning of the Group on such market, (vii) the 2014 pre-budget, and (viii) the main messages delivered to the financial market during the Capital Market Day of December 16, 2013.

### ***HSE/Sustainable Development Committee***

#### **Responsibilities:**

The Committee's assignments are the following:

Support General Management in developing a strategic approach to Health, Safety, Security and Environment (HSE) & Sustainable Development (SD). Determine the main axes for the improvement of HSE performance on an ongoing basis. Encourage, assist and counsel General Management in maintaining and improving HSE & SD performance.

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Monitor the performance of CGG's HSE & SD systems and programs, and at the Committee's discretion, recommend any changes to the Board.

Review CGG HSE & SD performance at each regularly scheduled meeting. Benchmark CGG performance against its peers in the industry.

Review the Group's high rated HSE & SD operational risks and the controls put in place to manage these risks. Review high impact incidents and near misses such as fatalities and HPIs.

Review the Group's SD programs (principally environmental, social and ethical matters) and provide support and direction concerning the mid-term and long-term direction of CGG efforts in this area.

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Monitor the Group's compliance with applicable laws related to HSE & SD.

Review the Group's crisis management preparedness. Monitor any major crisis and support the Board and General Management team as necessary in the event of such a crisis.

Recommend to the Board and to General Management desirable policies and actions from its review and monitoring activity. The Committee reports to the Board on its proceedings after each meeting, on all matters within its duties and responsibilities.

**Composition:**

As of the date of this report, the members of the Committee are as follows:

Kathleen Sendall<sup>(\*)</sup>, (Chairman)

Agnès Lemarchand<sup>(\*)</sup>

Daniel Valot

Terence Young<sup>(\*)</sup>

<sup>(\*)</sup> independent director

**Activity:**

In 2013, the Committee met twice. The attendance rate of Committee members was 90%.

During these meetings, the committee reviewed the following items: (i) the implementation of the conclusions of the external audit that was launched to assess the quality of the Group's governance in terms of management of industrial risks in order to propose ways of improvement with a continuous progress approach, (ii) the high potential incidents that occurred in the Land and Marine acquisition divisions as well the Group HSE indicators, (iii) the review of specific risks (road transportation, security), (iv) the HSE good practices implemented within the Group and the actions implemented in terms of sustainable development, (iv) the HSE integration of Fugro's Geoscience Division.

***Audit Committee:***

**Responsibilities:**

Pursuant to its charter, the Audit Committee is responsible for assisting the Board of Directors and, as such for preparing its assignments.

In the scope of the duties of the Audit Committee as defined by law, the Audit Committee shall, inter alia:

- a. Monitor the financial reporting process;
- b. Monitor the effectiveness of the Company's internal control and risk management systems;
- c. Monitor the statutory audit of the annual and consolidated accounts;



d. Review and monitor the independence of the statutory auditors.  
In this scope, the Committee is specifically in charge of:

Assignments relating to accounts and financial information:

Reviewing and discussing with General Management and the statutory auditors the following items:

the consistency and appropriateness of the accounting methods adopted for establishment of the corporate and consolidated financial statements,

the consolidation perimeter,

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the draft annual and consolidated accounts, semi-annual and quarterly consolidated financial statements along with their notes, and especially off-balance sheet arrangements,

the quality, comprehensiveness, accuracy and sincerity of the Group's financial statements,

Hearing the statutory auditors report on their review, including any comments and suggestions falling within the scope of their audit,

Examining the draft press releases related to the Group financial results and proposing any modifications deemed necessary,

Reviewing the *Document de Référence* and the annual report on Form 20-F,

Raising any financial and accounting question that appears important to it.

**Assignments relating to risk management and internal control:**

Reviewing with General Management (i) the Company's policy on risk management, (ii) the analysis made by the Company of its major risks (risk mapping) and (iii) the programs put in place to monitor them,

Reviewing with General Management (i) the role and responsibilities with respect to internal control; (ii) the principles and rules of internal control defined by the Company on its general internal control environment (governance, ethics, delegation of authority, information systems, etc.) and on the key processes (treasury, purchase, closing of the accounts, fixed assets, etc.), (iii) the internal control quality as perceived by the Company and (iv) significant deficiencies, if any, identified by the Company or reported by the external auditors (article L.823-16 of the French Commercial Code) as well as the corrective actions put into place,

Reviewing (i) the Report of the Chairman on Board of Directors' Composition, Preparation and Organization of the Board of Directors' Work, and Internal Control and Risk Management and (ii) the conclusions of the external auditors on this report.

**Assignments relating to internal audit:**

Reviewing with General Management:

the organization and operation of the internal audit,

the activities and in particular the missions proposed in the scope of the internal audit plan approved by management and presented to the Committee,

results of internal audit reviews.

Assignments relating to external audit:

Reviewing with the statutory auditors their annual audit plan,

Hearing, if necessary, the statutory auditors without General Management being present,

Monitoring the procedure for selection of the auditors and issuing a recommendation to the Board of Directors on the statutory auditors whose appointment is to be submitted to the Shareholders Meeting,

Monitoring the independence of the statutory auditors on annual basis,

Discussing, possibly individually the audit work with the statutory auditors and General Management and reviewing regularly with management the auditors fees. Within the framework of a procedure that it determines annually, the Committee has sole authority to authorize performance by the auditors and/or by the members of their network of services not directly relating to their auditing mission,

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### Other assignments:

Reviewing with management and (when appropriate) the external auditors the transactions binding directly or indirectly the Company and its Executive Officers,

Anonymously handling feedback concerning possible internal control problems, including accounting or other problems of a financial nature.

Finally, the General Management of the Company must report to the Committee any suspected fraud of a significant amount so that the Committee may proceed with any verification that it deems appropriate.

The following persons attend the Committee meetings: the Chairman of the Board of Directors, the Chief Executive Officer, the Corporate Officers, the relevant members of the E-Com, the Senior Vice President Group Chief Accounting Officer, the auditors, the Senior Vice President Internal Audit who presents an updated on significant missions at least twice a year.

The Audit Committee usually meets before each session of the Board of Directors.

Minutes of each meeting are taken. Furthermore, the Chairman of the Committee reports on its work at every Board of Directors meeting. This report is recorded in the minutes of the Board of Directors meeting.

### Composition:

As of the date of the present report, the members of the Committee are as follows:

Gilberte Lombard (Chairman)<sup>(\*)</sup>

Loren Carroll<sup>(\*)</sup>

Rémi Dorval<sup>(\*)</sup>

Agnès Lemarchand<sup>(\*)</sup>

Daniel Valot

<sup>(\*)</sup> independent director

Gilberte Lombard was appointed as Financial Expert by the Board of Directors in 2013 pursuant to Section 407 of Sarbanes Oxley Act.

Both Ms. Gilberte Lombard and Mr. Loren Carroll qualify as independent members of the Committee with specific competences in financial and accounting matters pursuant to article L.823-19 of the French Commercial Code.

Ms. Gilberte Lombard developed an extensive financial and accounting expertise through the various financial responsibilities she has held within the HSBC Group (previously *Crédit Commercial de France*), where she spent her career. After the privatization of Credit Commercial de France (1987), she was the Investor relations officer, in charge of the relation with financial analysts and institutional investors, and coordinated the information policy vis a vis the shareholders of the bank: major shareholders as well as individual shareholders. After Credit Commercial de France had been taken over by HSBC (2000), she was appointed as head of the financial transactions (*Directeur des Opérations Financières*) in charge of structuring and implementing sales, acquisitions, mergers for HSBC and managing HSBC industrial and financial portfolio. As part of her assignments, she was appointed as member of the Board and the Audit Committee of several companies of the HSBC group in France.

Mr. Loren Carroll, through the positions he held over 15 years within Arthur Andersen, developed an extensive accounting and auditing practice, especially for public companies. He then became Chief Financial Officer of Smith International, a supplier of products and services to the oil

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and gas, petrochemical, and other industrial markets. Within Smith International, he was in charge of investor relations, supervision of financial activities of Public Corporation (NYSE) and merger, acquisitions and strategic development.

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Both Ms. Gilberte Lombard and Mr. Loren Carroll are therefore very familiar with the financial and accounting specificities of our industrial sector and those linked to our international activities.

In compliance with the provisions of the AFEP-MEDEF Code, two thirds of the Committee is composed of independent directors. The committee has relied upon the report issued by the French *Autorité des marchés financiers* on audit committees.

### Activity:

In 2013, the Committee met nine times with an average attendance rate of committee members of 93%.

During these meetings, the Committee reviewed draft versions of the annual consolidated financial statements for 2012, and the consolidated financial statements for the first quarter, the first semester and the third quarter of 2013. It also reviewed the 2013 forecasts. The Committee also provided to the Board its recommendations concerning these financial statements. The Committee reviewed the Chairman's report on Board of Directors' Composition, Preparation and Organization of the Board of Directors' Work and on Internal Control and Risk Management, the annual report on Form 20-F and the *Document de Référence*.

The Committee also met with the external auditors without General Management present. During this meeting, the auditors and the Committee had an overview of the audit work performed for the closing of the 2012 financial statements.

The Committee also approved and implemented the annual review plan of the main risks of the Group and of certain specific risks that it determined. In this scope, in particular, the committee reviewed the insurance policy of the Group, the financial information systems and the information security, the Group policy with respect to ethics and the role and missions of the Ethics committee.

The Audit Committee has monitored the selection and renewal process of the statutory and statutory alternate auditors for fiscal years 2013 to 2018 and finally issued a recommendation to the Board to submit to the Shareholders' Meeting the renewal of the current auditors' term for a period of six fiscal years. This resolution was approved by the Shareholders' Meeting held on May 3, 2013. The committee also examined the work to be performed by the statutory auditors in the scope of their audit on the 2013 financial statements and approved their fee estimates for this work. In compliance with the Committee's procedures for its prior approval of non-audit services provided by the members of our auditors network, the Committee reviewed such services performed in 2013 and approved them as necessary.

The Committee reviewed the activities of the internal audit team, which acts according to a plan established by the E-Com and presented to the Committee. This plan is established in light of perceived operational and financial risks with the goal of systematically reviewing the major entities of each business division on a three-year basis. The Audit Committee also approved the internal audit charter.

The Committee was also kept regularly informed on the assessment of internal control procedures pursuant to Section 404 of the Sarbanes-Oxley Act and of the results thereof. The external auditors and the internal audit presented their respective conclusions.

The Committee also followed the evolution of the Group's legal perimeter and, in particular the rationalization program for the Group's legal structures.

In addition, the Committee was regularly kept informed of the Group's situation with respect to cash, debt, mid-term refinancing, cash flow forecasts and the Group's hedging policy.

Finally, the Committee reviewed the accounting issues related to the Fugro Geoscience Division and the preliminary evaluation performed on ex-Fugro entities with respect to internal control and risks evaluation, as well as the new organization of the Group in terms of cash generating units, in the perspective of goodwill allocation and in order to prepare impairment tests.

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### ***Technology Committee:***

#### **Responsibilities:**

The Committee is responsible for assisting the Board in reviewing:

the technology offer from competitors and other oil service companies,

the Group's development strategy in reservoir imaging including seismic and opportunities in other oilfield services and products,

the main development programs in services and equipment,

research and development budgets,

the protection of intellectual property.

The Technology Committee usually meets twice a year.

#### **Composition:**

As of the date of this report, the members of the Committee are as follows:

Robert Brunck (Chairman)

Rémi Dorval<sup>(\*)</sup>

Hilde Myrberg<sup>(\*)</sup>

Kathleen Sendall<sup>(\*)</sup>

Terence Young<sup>(\*)</sup>

<sup>(\*)</sup> independent director

#### **Activity:**

In 2013, the Committee met twice with an attendance rate of 100%.

During these meetings, the Committee reviewed the strategic actions plans in technology and intellectual property, the latest technological developments of the Group divisions, and certain specific technological projects.

### **Employees**

As of December 31, 2013, we had 9,688 permanent employees worldwide as well as several thousand auxiliary field personnel on temporary contracts. Of the total number of permanent employees, 2,496 belong to the Equipment Division, 2,940 to the Acquisition Division, 3,469 to the

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Geology, Geophysics and Reservoir ( GGR ) Division and 783 to the Group Functions, which includes shared services and corporate. 40 were employed by the holding company CGG SA. We have never experienced a material work stoppage and consider our relations with our employees to be constructive. A significant part of our permanent employees are technicians and persons holding engineering degrees; we have developed significant in-house training programs to sustain this high level of technical skills.

Our workforce of permanent employees increased from 7,560 at December 31, 2012 to 9,688 at December 31, 2013. 2,305 employees came from the acquisition of Fugro Geoscience Division. There was no collective departure plan implemented in 2013 within the Group.

In 2013 we sustained our recruiting efforts to respond to turnover (940 leavers) and facilitate the growth of the Company, with the goal of not only replacing leavers but also reinforcing our competences in strategic areas



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and expanding our activities. The 2013 turnover rate is 11.5%, slightly increasing from 10% (2012) and 11.2% (2011), showing increasing pressure due to a very competitive environment. We hired, integrated or transferred to a permanent employment status a total of 3,411 employees worldwide compared to 1,238 in 2012 (including Fugro Geoscience Division integration). The competences required for our activities continue to evolve, requiring an even more elaborate hiring process. This is particularly true for our GGR Division, which maintains a strong focus on candidates with Ph-Ds.

The Company continues to implement targeted recruitment programs, including geophysicists for our GGR centers, specialists for our research & development departments in all Divisions, maritime specialists for our Marine Business Line and high-potential managers for all Divisions. To cope with this demand, we continue to reinforce our partnership and collaboration with universities, schools and professional associations. We also maintain efforts through our own CGG University to develop trainings adapted to our needs: managerial, expert, individual soft skills, HSE and technical trainings.

In accordance with French law each of our French subsidiaries (representing a total of 1,945 employees) has an Employee Representation Committee (Work Council *Comité d'Entreprise*) consisting of representatives elected by our employees. The Work Council reports regularly to employees, represents employees in relations with management, is consulted on significant matters relating to working conditions and is regularly informed of economic developments. Elections held in November 2012 within the scope of the UES CGG SA and CGG Services SA have led to the composition of a new *Comité d'Entreprise* as of December 2012. Elections in the Sercel Group of Companies in France have been conducted in 2013 and all the Employee Representation Committees have been renewed.

Similarly elected employee representatives are in place for our field and expatriate staff employed by CGG International, set up under the specifications of the Swiss *Code des Obligations*. Marine Commission election took place in December 2012 and led to the formation of a new commission in 2013. Election for the Land commission in September 2013 confirmed existing representatives for another 3 years.

In Singapore, 37 people were represented under the collective agreement as of December 31, 2012. This represents 23% of our Singaporean workforce. These employees are represented by the Singapore Industrial and Services Employees Union (SISEU), an affiliated union of the National Trade Union Congress.

Offshore crews on Norwegian contracts (260 people, 122 living outside Scandinavia) are under a collective agreement. Salaries and other conditions are negotiated with their shop steward and a representative is nominated to represent the union. For office employees there are 3 different agreements in place organizing a total of 75 employees out of approximately 291. Salaries are decided on an individual basis. For all of Norway (employees on Norwegian contract), excluding Sercel, 47% of the personnel are covered under collective agreements.

### **Share ownership**

In accordance with French law, we are authorized annually by our shareholders at the extraordinary General Meeting to issue ordinary shares for sale to our employees and employees of our affiliates who elect to participate in our Group Employee Savings Plan (*Plan d'Épargne Entreprise Groupe*) instituted in 1997 (the Group Plan). Our shareholders, at the extraordinary General Meeting held on May 3, 2013, renewed our authorization to issue up to 6,250,000 ordinary shares in sales to employees and affiliates who participate in the Group Plan. We may offer ordinary shares pursuant to the Group Plan at a price neither higher than the average market price for the 20 business days preceding the date on which the Board of Directors sets the commencement date for the offering, nor lower than 80% of such average market price. As of December 31, 2013, Group employees held 78,000 shares corresponding to 0.04% of the share capital and 0.08% of the voting rights.

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**Stock options**

Pursuant to resolutions adopted by our Board of Directors on May 11, 2006, March 23, 2007, March 14, 2008, March 16, 2009, January 6, 2010, March 22, 2010, October 21, 2010, March 24, 2011, June 26, 2012 and June 24, 2013, our Board of Directors has granted options to certain of our employees and Executive Officers to subscribe for an aggregate of 10,942,462 ordinary shares taking into account the various adjustment made to the number of stock options issued pursuant to French law. Options with respect to 10,151,820 ordinary shares remained outstanding as of December 31, 2013.

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The following table sets forth certain information relating to these stock options plans as of December 31, 2013:

Date of Board of Directors resolution	Options granted <sup>(1)</sup>	Number of beneficiaries	Options exercised (ordinary shares) at December 31, 2013	Options outstanding at December 31, 2013	Exercise price per ordinary share <sup>(1)</sup>	Expiration date
May 11, 2006 <sup>(4)(2)</sup>	1,012,500	171	2,500	1,001,048	24.95	May 11, 2014
March 23, 2007 <sup>(5)(3)</sup>	1,308,750	145	2,000	1,220,109	28.89	March 23, 2015
March 14, 2008 <sup>(6)(3)</sup>	1,188,500	130	0	1,117,594	30.95	March 14, 2016
March 16, 2009 <sup>(7)(3)</sup>	1,327,000	149	452,950	828,039	8.38	March 16, 2017
January 6, 2010 <sup>(8)(3)</sup>	220,000	1	0	231,538	13.98	January 6, 2018
March 22, 2010 <sup>(9)(3)</sup>	1,548,150	339	38,382	1,415,977	18.47	March 22, 2018
October 21, 2010 <sup>(10)(3)</sup>	120,000	3	0	126,291	16.05	October 21, 2018
March 24, 2011 <sup>(11)(3)</sup>	1,164,363	366	0	1,130,380	24.21	March 24, 2019
June 26, 2012 <sup>(12)(3)</sup>	1,410,625	413	0	1,458,208	17.84	June 26, 2020
June 24, 2013 <sup>(13)(3)</sup>	1,642,574	672	0	1,622,636	18.47	June 24, 2021
<b>Total</b>	<b>10,942,462</b>		<b>495,832</b>	<b>10,151,820</b>		

<sup>(1)</sup> Pursuant to French law and the terms of the stock option plans, the numbers of options initially granted and the exercise price were adjusted following (i) our share capital increase in December 2005, (ii) our five-for-one stock split in June 2008 and (iii) our share capital increase in October 2012. The figures shown are after adjustment.

<sup>(2)</sup> The stock option plans provide for the cancellation of the non-vested options if the holder is no longer our employee, Director or Executive Officer.

<sup>(3)</sup> The stock option plans provide for the cancellation of the options whether vested or not if the holder is no longer our employee, Director or Executive Officer.

<sup>(4)</sup> Options under the 2006 plan vest by one-fourth each year from May 2006 and can be exercised at any time. However the resulting shares cannot be sold by French tax residents before May 12, 2010.

<sup>(5)</sup> Options under the 2007 plan vest by one-third each year from March 2007 and can be exercised at any time. However the resulting shares cannot be sold by French tax residents before March 24, 2011.

<sup>(6)</sup> Options under the 2008 plan vest by one-third each year from March 2008 and can be exercised at any time. However the resulting shares cannot be sold by French tax residents before March 17, 2012.

<sup>(7)</sup> Options under the 2009 plans vest by one-third each year from March 2009 and can be exercised at any time. However the resulting shares cannot be sold by French tax residents before March 17, 2013. The 2009 plans consist of a plan granting 200,000 options to the Chairman and Chief Executive Officer and 125,000 options to the Chief Operating Officer (subject to certain performance conditions and a plan granting 1,002,000 options to certain other officers and employees.

<sup>(8)</sup> 110,000 options vest immediately, 55,000 will vest as of January 7, 2011 and 55,000 as of January 7, 2012. However during the first four years, the resulting shares cannot be sold by French tax residents before January 7, 2013 for the first batch and, January 7, 2014 for the second and third batches.

<sup>(9)</sup> Options under the March 2010 plans vest by one-third each year from March 2010 and can be exercised at any time. However the resulting shares cannot be sold by French tax residents before March 23, 2014. The March 2010 plans consist of a plan granting 200,000 options to the Chief Executive Officer (subject to certain performance conditions) and a plan granting 1,348,150 options to certain other officers and employees.

<sup>(10)</sup> Options under the October 2010 plan vest by one-third each year from October 2010 and can be exercised at any time. However the resulting shares cannot be sold by French tax residents before October 22, 2014. The October 2010 plan consists of a plan granting 120,000 options to three members of the Executive Committee.

<sup>(11)</sup> Options under the March 2011 plans vest by one-third each year from March 2011 and can be exercised at any time. However the resulting shares cannot be sold by French tax residents before March 25, 2015. The March 2011 plans consist of a plan granting 66,667 options to the Chairman and 133,333 options to the Chief Executive Officer (subject to certain performance conditions) and a plan granting 964,363 options to certain other officers and employees.

<sup>(12)</sup> Options under the June 2012 plans vest in three batches (50% in June 2014, 25% in June 2015 and 25% in June 2016) and can be exercised at any time. However the resulting shares cannot be sold by French tax residents before June 26, 2016. The June 2012 plans consist of a plan granting 200,000 options to the Chief Executive Officer, 100,000 options to each Corporate Officer (subject to certain performance

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conditions) and a plan granting 1,010,625 options to certain other officers and employees.

<sup>(13)</sup> Options under the June 2013 plans vest in three batches (50% in June 2015, 25% in June 2016 and 25% in June 2017) and can be exercised at any time. However the resulting shares cannot be sold by French tax residents before June 24, 2017. The June 2013 plans consist of a plan granting 200,000 options to the Chief Executive Officer, 100,000 options to each Corporate Officer (subject to certain performance conditions) and a plan granting 1,242,574 options to certain other officers and employees.

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The stock options allocated to Mr. Malcor, Chief Executive Officer, Mr. Frydman and Mr. Rouiller, Corporate Officers (the Executive Officers ) under the plans implemented by the Company over the last two years are set forth below:

Name of the Executive Officer	Date of the Plan	Nature of stock options	Valuation of options pursuant to the method used for consolidated financial statements ( )	Number of options allocated during fiscal year <sup>(1)</sup>	Subscription price <sup>(1)(2)</sup>	Exercise period
Jean-Georges Malcor	06.26.2012	Options to subscribe for shares	804,000	210,484 <sup>(3)</sup>	17.84	From 06.27.2014 to 06.26.2020 inclusive
Chief Executive Officer				0.14% <sup>(*)</sup>		
Stéphane-Paul Frydman	06.26.2012	Options to subscribe for shares	402,000	105,243 <sup>(3)</sup>	17.84	From 06.27.2014 to 06.26.2020 inclusive
Corporate Officer				0.07% <sup>(*)</sup>		
Pascal Rouiller	06.26.2012	Options to subscribe for shares	402,000	105,243 <sup>(3)</sup>	17.84	From 06.27.2014 to 06.26.2020 inclusive
Corporate Officer				0.07% <sup>(*)</sup>		
Jean-Georges Malcor	06.24.2013	Options to subscribe for shares	810,000	200,000 <sup>(3)</sup>	18.47	From 06.25.2015 to 06.24.2021 inclusive
Chief Executive Officer				0.11% <sup>(*)</sup>		
Stéphane-Paul Frydman	06.24.2013	Options to subscribe for shares	405,000	100,000 <sup>(3)</sup>	18.47	From 06.25.2015 to 06.24.2021 inclusive
Corporate Officer				0.05% <sup>(*)</sup>		
Pascal Rouiller	06.24.2013	Options to subscribe for shares	405,000	100,000 <sup>(3)</sup>	18.47	From 06.25.2015 to 06.24.2021 inclusive
Corporate Officer				0.05% <sup>(*)</sup>		

<sup>(1)</sup> Number of options and subscription prices adjusted further to the capital increase of October 23, 2012.

<sup>(2)</sup> The subscription price corresponds to the average of the opening share prices of the share on the last twenty trading days prior to the meeting of the Board of Directors granting the options.

<sup>(3)</sup> Subject to the performance conditions described below.

<sup>(\*)</sup> Part of the allocation of stock options on the share capital as of the date of the allocation.

Stock options are allocated without any possible discount.

The conditions of the plans applicable to the Executive Officers are those of the general plans, plus those described below.

The valuation of the options pursuant to the method used to prepare the consolidated financial statements does not necessarily correspond to the actual value that the beneficiary could derive from the exercise of the options. The exercise of the options is subject to the fulfillment of certain performance conditions and supposes a subscription price lower than the stock market price. Moreover, the gain before tax that a stock option beneficiary may derive from the option exercise depends upon the share market price on the exercise date. This gain could be nil if, during the duration of the plan, the exercise price remains above the share market price.

*Performance conditions:*

Stock option plan dated June 26, 2012

The Board of Directors decided, in accordance with the provisions of the AFEP-MEDEF Code that the rights to the options would be acquired in three batches during the first four years of the plan dated June 26, 2012 (50% of the options allocated in June 2014, 25% of the options allocated

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in June 2015 and 25% of the options allocated in June 2016) and that the acquisition of options would be subject to the following performance conditions:

1. The average, over the 60 trading days preceding the date of allocation, of the ratio of the CGG ADS price over the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index shall equal at least two-thirds of the same average ratio over the same period of sixty trading days three years before the vesting date;
2. The average, over the 60 trading days preceding the date of allocation, of the ratio of the CGG share price over SBF 120 index shall equal at least two-thirds of the same average ratio over the same period of sixty trading days three years before the vesting date;

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3. Over the vesting period, the market price of the CGG share shall have increased at least by 8% on an annual basis;
4. The Group results in average over a period of three years preceding the vesting date shall reach at least 90% of the average EBITDAS annual targets as determined by the Board of Directors.

**Stock option plan dated June 24, 2013**

The Board of Directors decided, in accordance with the provisions of the AFEP-MEDEF Code that the rights to the options would be acquired in three batches during the first four years of the plan dated June 24, 2013 (50% of the options allocated in June 2015, 25% of the options allocated in June 2016 and 25% of the options allocated in June 2017) and that the acquisition of options would be subject to the following performance conditions:

1. The average, over the 60 trading days preceding the date of allocation, of the ratio of the CGG ADS price over the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index shall equal at least two-thirds of the same average ratio over the same period of sixty trading days three years before the vesting date;
2. The average, over the 60 trading days preceding the date of allocation, of the ratio of the CGG share price over SBF 120 index shall equal at least two-thirds of the same average ratio over the same period of sixty trading days three years before the vesting date;
3. Over the vesting period, the market price of the CGG share shall have increased at least by 8% on an annual basis;
4. The Group results in average over a period of three years preceding the vesting date shall reach at least 90% of the average EBITDAS annual targets as determined by the Board of Directors.

*Obligation to keep stock options under the registered form:*

Pursuant to the provisions of article L.225-185 of the French Commercial Code, the Board of Directors decided that the number of shares resulting from the exercise of stock options that the Executive Officers benefiting from these plans will have to keep under the registered form until the end of their term shall account for 20% of the amount of the gain on the purchase price realized when exercising the options granted by the Board of Directors on June 26, 2012 and June 24, 2013.

*Prohibition of the use of hedging instruments:*

Upon the Committee's proposal and pursuant to the provisions of Code and the recommendations of the AMF, the Board of Directors reminded the Executive Officers that they should not use hedging instruments both on options and on shares resulting from the exercise of options until the end of the retention period of the shares under registered form as set by the Board pursuant to the provisions of article L.225.185 of the French Commercial Code.

*Exercise period:*

The Board noted that the exercise of stock options by the Executive Officers is subject to compliance with the rules prohibiting trading over the shares of the Company set by the Group and which apply to all permanent insiders of the Group.

**Performance shares**

- a) Performance shares plans approved by shareholders and implemented by the Board of Directors  
At the Extraordinary General Shareholders' Meeting held on April 29, 2008, a performance share plan was approved by shareholders whereby performance shares representing up to 1% of our share capital outstanding on the date of allocation may be granted in one or several allocations

by the Board of Directors to certain of our



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employees and Executive Officers during the 38-month period following the plan's approval. Pursuant to such shareholders' resolution, the Board allocated (i) 509,925 performance shares to 332 beneficiaries on March 22, 2010 and (ii) 488,586 performance shares to 365 beneficiaries on March 24, 2011.

At the Extraordinary General Shareholders' Meeting held on May 4, 2011, a performance share plan was approved by shareholders whereby performance shares representing up to 1% of our share capital outstanding on the date of allocation may be granted in one or several allocations by the Board of Directors to certain of our employees and Executive Officers during the 38-month period following the plan's approval. Pursuant to such shareholders' resolution, the Board allocated 516,550 performance shares to 413 beneficiaries on June 26, 2012.

b) Performance shares allocated to the Executive Officers in 2012 and 2013

Performance shares allocated to Executive Officers under the plan dated June 26, 2012 are set forth below:

<b>Name of the Executive Officer ( mandataire social )</b>	<b>Date of the Board of Directors meeting</b>	<b>Number of shares allocated<sup>(1)</sup></b>	<b>Valuation of shares ( € )</b>	<b>Final allocation Date</b>	<b>Date of availability</b>	<b>Performance conditions</b>
Jean-Georges Malcor	06.26.2012	28,892	498,575	06.26.2014	06.26.2016	EBI EBITDAS
<i>Chief Executive Officer</i>						
Stéphane-Paul Frydman	06.26.2012	11,819	203,963	06.26.2014	06.26.2016	EBI EBITDAS
<i>Corporate Officer</i>						
Pascal Rouiller	06.26.2012	11,819	203,963	06.26.2014	06.26.2016	EBI EBITDAS
<i>Corporate Officer</i>						

<sup>(1)</sup> Adjusted following the capital increase of October 23, 2012.

There was no performance shares plan adopted by the Company or by any of its subsidiary in 2013.

**Plan dated June 26, 2012:**

Pursuant to article L.225-197-1 of the French Commercial Code, the Board of Directors decided that the number of performance shares thus allocated to the Executive Officers benefiting from the plan dated June 26, 2012 will be set at 10% of such allocation, which the Executive Officers will have to keep under the registered form until the end of their term.

In accordance with the AFEP-MEDEF Code, the Board of Directors held a meeting on June 26, 2012 where it decided to set the number of additional shares that the Executive Officers are required to purchase at the end of the performance share allocation period under the 2012 plan at one (1) share for twenty (20) allocated shares.

c) Performance shares finally allocated to Executive Officers during 2012 and 2013

**Plan dated March 24, 2011:**

The Board of Directors held a meeting on February 27, 2013 where it noted that, for the plan of March 24, 2011, the condition for the achievement of the EBITDA for the Services sector had been met up to 85%, the condition for the achievement of the EBITDA for the Equipment sector had been met up to 108%, and the condition for the achievement of the EBITDA for the Group had been met up to 92%. As a result, Messrs. Brunck, Malcor, Frydman and Rouiller were respectively allocated 12,423, 24,847, 7,634 and 8,166 shares under this plan.

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In accordance with the AFEP-MEDEF Code, the Board of Directors held a meeting on March 24, 2011, where it decided to set the number of additional shares that the Executive Officers are required to purchase at the end of the performance shares allocation period under the 2011 plan at one (1) share for twenty (20) allocated shares.

**Table of Contents**Plan dated March 22, 2010:

The Board of Directors held a meeting on February 29, 2012 where it noted that, for the plan of March 22, 2010, the condition for the achievement of the EBI was fulfilled up to 153% for the Equipment segment and p to 75% at the Group level. None of the performance conditions were fulfilled for the Services segment. As a result, Messrs. Brunck and Malcor were respectively allocated 8,694 and 7,113 shares under this plan and Messrs. Frydman and Rouiller 2,766 each.

In accordance with the AFEP-MEDEF Code, the Board of Directors also decided held on March 22, 2010 to set the number of additional shares that the Executive Officers are required to purchase at the end of the performance shares allocation period under the 2010 plan at one (1) share for twenty (20) allocated shares.

- d) Performance shares that have become freely transferable upon expiry of the retention period, for the Executive Officers during 2012 and 2013:

**2012**

Name of the Executive Officer ( <i>mandataire social</i> )	Date of the plan	Number of shares that have become freely transferable upon expiry of the retention period during 2012	Performance conditions
Pascal Rouiller	03.14.2008	2,428	N/A*
<i>Corporate Officer</i>			

\* As of the date of this plan, Mr. Pascal Rouiller was not yet Executive Officer of the Company. None of the other current Executive Officers were allocated shares under this plan.

**2013**

Name of the Executive Officer ( <i>mandataire social</i> )	Date of the plan	Number of shares that have become freely transferable upon expiry of the retention period during 2013	Performance conditions
Pascal Rouiller	03.16.2009	3,750	N/A*
<i>Corporate Officer</i>			

\* As of the date of this plan, Mr. Pascal Rouiller was not yet Executive Officer of the Company. None of the other current Executive Officers were allocated shares under this plan.

**Transactions carried out by executives or their close relatives on the Company's shares**

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Pursuant to article L.621-18-2 of the French *Code monétaire et financier* and article 223-26 of the General Regulation of the French Market Authority, summary of the transactions carried out pursuant to the above mentioned article L.621-18-2 are set out below.

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Executive Officers, Directors and members of the corporate committees are forbidden to carry out any transaction on the Company shares, whatever its nature, including the exercise of stock options, (i) during the thirty calendar days preceding the publication of quarterly, semi-annual or annual results (the transactions on the Company shares can be carried out the day after the date of publication of the results), (ii) in case they hold any information which could have a slight influence on the share value in case of public disclosure.

Name	Type of transaction	Date	Unit price	Amount of the transaction
<b>Pascal ROUILLER</b>	Stock option exercise	March 25, 2013	8.38	352,764.48
<i>Corporate Officer &amp; SEVP, Equipment Division</i>	Transfer of shares	March 25, 2013	17.73	746,362.08
<b>Olivier APPERT</b>	Share purchase	June 5, 2013	18.50	4,995
<i>Director</i>				
<b>Jean-Georges MALCOR</b>	Share purchase	June 20, 2013	18	19,800
<i>Chief Executive Officer &amp; Director</i>	Share purchase	December 23, 2013	12.105	24,210
<b>Robert SEMMENS</b>	ADS purchase	December 24, 2013	\$16.33	\$10,042.95
<i>Director</i>				

**Item 7: PRINCIPAL SHAREHOLDERS****Major shareholders**

The table below sets forth certain information with respect to entities known to us or ascertained from public filings to beneficially own a significant percentage of our voting securities as at March 31, 2014 and December 31, 2013, 2012 and 2011.

Identity of Person or Group	March 31, 2014		2013		December 31, 2012		2011	
	% of shares	% of voting rights	% of shares	% of voting rights	% of shares	% of voting rights	% of shares	% of voting rights
Banque Publique d Investissement (formerly named Fonds Stratégique d Investissement)	7.04	11.53	7.04	11.53	7.06	11.21	6.50	6.22
IFP Energies Nouvelles (formerly named Institut Français du Pétrole)	3.59	6.55	3.59	6.55	3.60	6.60	4.18	8.00
<i>Subtotal Banque Publique d Investissement and IFP Energies Nouvelles</i>	<i>10.63</i>	<i>18.08</i>	<i>10.63</i>	<i>18.08</i>	<i>10.66</i>	<i>17.81</i>	<i>10.68</i>	<i>14.22</i>
Manning & Napier <sup>(1)</sup>	10.24	9.35	5.48	5.00	4.30	3.94	4.99	4.77
FCPE CGG Actionnariat <sup>(1)</sup>	0.04	0.08	0.04	0.08	0.04	0.08	0.05	0.10
Treasury stock	0.45	0.00	0.45	0.00	0.45	0.00	0.53	0.00
Public	78.64	72.49	83.40	76.82	80.27	74.24	78.82	76.19
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

<sup>(\*)</sup> Shares held by CGG Group employees.

<sup>(1)</sup> *Calculated on the basis of the number of shares owned by Manning & Napier as indicated in the notice of threshold crossing dated March 18, 2014.*

Our *statuts* provide that each ordinary share that is fully paid and has been held in registered form by the same shareholder for a period of at least two consecutive years will entitle such shareholder to two votes at meetings of shareholders. As of March 31, 2014, IFP Energies Nouvelles and Banque Publique d Investissement (formerly Fonds Stratégique d Investissement) had held respectively 12,461,577 and 6,346,610 fully paid

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ordinary shares in the registered form for two consecutive years, giving IFP Energies Nouvelles and Banque Publique d Investissement respectively 11.53% and 6.55% of the voting power of the outstanding ordinary shares at such date. Other than in this respect, our ordinary shares carry identical voting rights. Our *statuts* provide that fully paid ordinary shares may be held in either registered form or bearer form at the option of the shareholder. Substantially all ordinary shares held by shareholders other than IFP Energies Nouvelles are presently held in bearer form.

On March 9, 2012, Banque Publique d Investissement (formerly named Fonds Stratégique d Investissement) and IFP Energies Nouvelles announced that they had entered into a shareholders' agreement relating to their shareholding in order to implement a common approach on the matters relating to the Company.

On September 26, 2012, the Company launched a share capital increase through the distribution of preferential subscription rights to existing shareholders to fund the acquisition of the businesses of Fugro Geoscience Division (excluding multi-clients library and OBN businesses). The final gross proceeds amounted to 413,609,320, corresponding to the issuance of 24,329,960 new shares. The net proceeds of the issuance were used to pay a portion of the acquisition price for the Geoscience Division (the Acquisition).

On November 20, 2012, we issued 11,200,995 bonds convertible into and/or exchangeable for new or existing shares of the Company to be redeemed on January 1, 2019 for a total nominal amount of 360 million. The net proceeds of the issuance were used to finance part of the purchase price of the Fugro's Geoscience Division Acquisition. The convertible bonds will entitle the holders to receive new and/or existing CGG shares at the ratio of one share per one bond, subject to adjustments. Under certain conditions, the bonds may be redeemed prior to maturity at our option.

See Item 9: The offer and Listing Offer and Listing Details for information regarding holdings of our shares in the United States.

**Changes in share capital during 2013**

Transaction	Nominal value	Number of shares created	Amount of the share premium	Amount of the capital variation	Resulting total share capital
Exercise of stock options as of December 30, 2013	0.40	6,593	52,612.14	2,637.20	70,756,346
Exercise of stock options as of September 30, 2013	0.40	23,388	186,636.24	9,355.20	70,753,709
Exercise of stock options as of June 30, 2013	0.40	31,047	247,755.06	12,418.50	70,744,354
Performance shares allocation as of May 3, 2013	0.40	376,080	N/A	150,432.00	70,731,935
Exercise of stock options as of March 31, 2013	0.40	61,533	495,281.23	24,613.20	70,581,503

As of December 31, 2013, the only dilutive instruments issued were stock options, performance shares and bonds convertible into new or existing shares. As of this date, there were 10,151,820 outstanding stock options and 535,018 performance shares. In addition, we had outstanding (but not yet converted) 13,610,072 convertible bonds (2016 OCEANEs), 11,200,995 convertible bonds (2019 OCEANEs) which are convertible into new or existing shares. These instruments represented a dilution of 5.74% for the stock options, 0.30% for the performance shares, and 14.03% in aggregate for the convertible bonds.

**Table of Contents****Employees shareholding**

Pursuant to article L.225-102 of the French Commercial Code, we inform you that on December 31, 2013, the number of shares held by the employees of the Group, through the Group Employee Savings Plan instituted in 1997, amounted to 78,000 shares corresponding to 0.04% of the share capital and 0.08% of the voting rights of CGG.

**Related party transactions**

We sell products and services to related parties, pursuant to arm's length contracts. We also receive products and services from related parties in exchange.

	2013	2012 (restated)	2011 (restated)
	((In millions of US dollars))		
Sales of Geophysical Equipment to Argas	1.4	10.9	4.2
Equipment rentals and services rendered to Argas	9.7	10.4	15.2
Charter revenues received from LDA for the <i>CGG Alizé</i>	15.3	12.2	13.8
Services rendered to Gardline CGG Pte Ltd.		3.3	
Equipment rentals and services rendered to PTSC CGGV Geophysical Survey Company	27.8	13.6	
Equipment rentals and services rendered to PT Elnusa-CGGVeritas Seismic		6.0	17.3
Equipment rentals and services rendered to Seabed Geosolutions BV	11.9		
<b>Income</b>	<b>66.1</b>	<b>56.4</b>	<b>50.5</b>
Equipment purchase and rentals from Argas	4.4	6.2	8.7
Charter expenses and ship management paid to LDA	22.0	34.3	28.1
Charter expenses from Eidesvik Seismic Vessels AS	14.6	14.6	17.3
Charter expenses from Oceanic Seismic Vessels AS	18.1	15.4	4.5
Ship management expenses from CGG Eidesvik Ship Management AS	80.3	67.8	9.0
Ship management expenses from Geofield Ship Management Services SAS	11.3		
Costs of services rendered by PT Elnusa-CGGVeritas Seismic		10.8	13.5
Purchases of Geophysical Equipment from Tronic s	5.0	10.9	8.8
Cost of services rendered by PTSC CGGV Geophysical Survey Company	42.6	23.4	
Cost of services rendered by Gardline CGG Pte Ltd	1.7	5.6	1.4
<b>Expenses</b>	<b>200.0</b>	<b>189.0</b>	<b>91.3</b>
Trade receivables from Argas	8.0	6.9	4.0
Trade receivables from PT Elnusa-CGGVeritas Seismic.	5.1	6.1	14.7
Trade receivables from PTSC CGGV Geophysical Survey Company	1.8	4.2	
Trade receivables from LDA	10.6	11.9	7.1
Trade receivables from Seabed Geosolutions BV	8.5		
<b>Trade accounts and notes receivable</b>	<b>34.0</b>	<b>29.1</b>	<b>25.8</b>
Agency arrangements with Seabed Geosolutions BV	5.0		
Agency arrangements with Argas	5.4		
<b>Other current assets</b>	<b>10.4</b>		
Loan to PTSC CGGV Geophysical Survey Company	25.0	28.3	
<b>Financial assets</b>	<b>25.0</b>	<b>28.3</b>	
Accounts payable to Argas	8.6	5.4	3.0
Accounts payable to LDA		2.7	3.9
Accounts payable to Spectrum ASA		0.9	3.4
Accounts payable to PTSC CGGV Geophysical Survey Company	10.2	10.9	
Accounts payable to PT Elnusa-CGGVeritas Seismic			12.9



Accounts payable to Seabed Geosolutions BV

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	2013	2012 (restated)	2011 (restated)
	((In millions of US dollars))		
<b>Trade accounts and notes payables</b>	<b>21.4</b>	<b>19.9</b>	<b>23.2</b>
Agency arrangements with Seabed Geosolutions BV	15.4		
Agency arrangements with Argas	5.4		
<b>Other current liabilities</b>	<b>20.8</b>		
Finance lease debt to Eidesvik Seismic Vessels AS	10.9	11.7	12.4
Finance lease debt to Oceanic Seismic Vessels AS	9.0	9.6	10.2
<b>Financial liabilities</b>	<b>19.9</b>	<b>21.3</b>	<b>22.6</b>
Future leases commitments to Oceanic Seismic Vessels AS	163.7	180.1	149.3
Future leases commitments to Eidesvik Seismic Vessels AS	139.9	155.9	172.5
Future ship management costs to LDA net		4.6	8.2
Future ship management costs to CGG Eidesvik Ship Management AS	241.9	222.9	258.2
Future ship management costs to GeofieLD Ship Management SAS	12.2		
<b>Contractual Obligations</b>	<b>557.5</b>	<b>563.5</b>	<b>588.2</b>

Louis Dreyfus Armateurs ( LDA ) provides ship management services for a portion of our fleet. In addition, LDA was the owner, together with the Group, of Geomar which owns of the seismic vessel *CGG Alizé* . Geomar provides vessel charter services to LDA.

Argas, Eidesvik Seismic Vessels AS, Oceanic Seismic Vessels AS, Gardline CGG Pte Ltd., CGG Eidesvik Ship Management AS, PTSC CGGV Geophysical Survey Company, Spectrum ASA, PT Elnusa-CGGVeritas Seismic, GeofieLD Ship Management Services SAS and Seabed Geosolutions BV are companies accounted for under the equity method. Tronic s is 16% owned by the Group.

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

**Interest of experts and counsel**

None

**Item 8: FINANCIAL INFORMATION**  
**Consolidated statements and other financial information**

Reference is made to Item 18 for a list of all financial statements and notes thereto filed as a part of this annual report.

**Item 9: THE OFFER AND LISTING**  
**Offer and listing details**

The trading market for our ordinary shares is Euronext Paris SA, where the ordinary shares have been listed since 1981. American Depositary Shares, or ADSs, representing ordinary shares have been traded on the New York Stock Exchange since May 1997. Each ADS represents one ordinary share. The ADSs are evidenced by American Depositary Receipts, or ADRs, issued by The Bank of New York, as Depositary, and are traded under the symbol *CGG* . The Bank of New York has advised us that as of March 31, 2014, there were 2,483,472 ADSs outstanding. On the basis of this information, the ADSs held on such date in the United States represented approximately 1.40 % of our outstanding ordinary shares. Our by-laws provide that fully paid ordinary shares may be held in either registered or bearer form at the option of the shareholder.



**Table of Contents****Price information on Euronext Paris.**

The tables below set forth, for the periods indicated, the high and low prices for the outstanding ordinary shares on Euronext Paris as reported by NYSE Euronext.

The table below indicates the high and low market prices for our most recent six months:

	Price per Share High	Low
	( )	
<b>2014</b>		
March	11.67	10.61
February	12.83	10.63
January	12.85	10.86
<b>2013</b>		
December	15.27	11.49
November	17.28	14.35
October	17.40	15.35

The table below indicates the quarterly high and low market prices for our two most recent financial years and the first quarter of 2014:

	Price per Share High	Low
	( )	
<b>2014</b>		
First Quarter	12.85	10.61
<b>2013</b>		
First Quarter	23.60	17.50
Second Quarter	20.33	15.31
Third Quarter	20.00	16.91
Fourth Quarter	17.40	11.49
<b>2012</b>		
First Quarter	24.19	17.83
Second Quarter	22.57	16.33
Third Quarter	25.52	19.95
Fourth Quarter	25.76	20.85

The table below indicates the high and low market prices for the five most recent financial years:

	Price per Share High	Low
	( )	
2013	23.60	11.49
2012	25.76	16.33
2011	27.78	11.43
2010	24.98	12.93
2009	17.19	7.63

**Price information on the NYSE**

The table below sets forth, for the periods indicated, the high and low sale prices for the ADSs representing our ordinary shares on the New York Stock Exchange.



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The table below indicates the high and low market prices for our most recent six months:

	Price per Share High Low (US\$)	
<b>2014</b>		
March	16.08	14.64
February	16.61	14.53
January	17.31	14.71
<b>2013</b>		
December	20.66	15.77
November	23.17	19.65
October	23.10	20.78

The table below indicates the quarterly high and low market prices for our two most recent financial years and the first quarter of 2014:

	Price per Share High Low (US\$)	
<b>2014</b>		
First Quarter	17.34	14.53
<b>2013</b>		
First Quarter	31.12	22.46
Second Quarter	26.09	20.00
Third Quarter	25.85	22.05
Fourth Quarter	23.17	15.77
<b>2012</b>		
First Quarter	31.48	24.09
Second Quarter	30.45	20.68
Third Quarter	34.84	24.55
Fourth Quarter	34.83	27.83

The table below indicates the yearly high and low market prices on a yearly basis for the five most recent financial years:

	Price per Share High Low (US\$)	
2013	31.12	15.77
2012	34.84	20.68
2011	38.12	19.92
2010	33.39	16.42
2009	25.34	9.67

**Trading on Euronext Paris**

Official trading of listed securities on Euronext Paris is transacted through stockbrokers and other financial intermediaries, and takes place continuously on each business day from 9:00 a.m. through 5:25 p.m., with a pre-opening session from 7:15 a.m. through 9:00 a.m. during which transactions are recorded but not executed. Any trade effectuated after the close of a stock exchange session is recorded, on the next Euronext Paris trading day, at the closing price for the relevant security at the end of the previous day's session. Euronext Paris publishes a daily Official Price List that includes price information concerning listed securities. Euronext Paris

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has introduced continuous trading during trading hours by computer for most listed securities. Shares listed on Euronext Paris are placed in one of three categories depending on the issuer's market capitalization. Our outstanding ordinary shares are listed on Euronext Paris in the category known as *Continu*, which includes the most actively traded shares.

### **Plan of distribution**

Not applicable.

### **Markets**

Our ordinary shares are listed on Euronext Paris. American Depositary Shares representing our ordinary shares are listed on the New York Stock Exchange. Our 7.75% Senior Notes due 2017, our 9.5% Senior Notes due 2016 and our 6.5% Senior Notes due 2021 are listed on the Euro MTF market in Luxembourg.

### **Selling shareholders**

Not applicable.

### **Dilution**

Not applicable.

### **Expenses of the issue**

Not applicable.

## **Item 10: ADDITIONAL INFORMATION**

### **Share capital**

Not applicable.

### **Memorandum and by-laws**

Our company is a *société anonyme*, a form of limited liability company, established under the laws of France. We are registered with the Trade Register of Paris, France under the number 969 202 241 RCS Paris. Our financial year begins on January 1 and ends on December 31 of each calendar year. The following paragraphs set forth information concerning our share capital and provide related descriptions of certain provisions of our by-laws (*statuts*), and applicable French law. This information and description do not purport to be complete and are qualified in their entirety by reference to our by-laws.

### ***Object and purposes***

Under Article 2 of our *statuts*, our object is:

to develop and operate, in any form and under any conditions whatsoever, any and all businesses relating to the geophysical surveying of soil and subsoil in any and all countries, on behalf of third parties or ourselves;

to participate directly or indirectly in any business, firm or company whose object would be likely to promote our object; and

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generally, to engage in any commercial, industrial, mining, financial, personal or real property activities relating directly or indirectly to the above objects without limitation or reserve.



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### ***Directors***

For a further description of the Board of Directors powers under French law and our *statuts*, see Item 6: Directors, Senior Management and Employees.

### ***Transaction with Interested Directors***

French corporate law provides for prior approval and control of transactions entered into between, directly or indirectly, us (i) and our Directors, Chief Executive Officer, corporate officers, or (ii) any entity in which any of these persons is at the same time an owner, partner with unlimited liability, Managing Director, Deputy Managing Director, Member of the Supervisory Board or an Executive Officer, unless the transaction is entered into in the ordinary course of business and under normal terms and conditions. Transactions entered into between us and one of our shareholders who holds, directly or indirectly, more than 10% of our voting rights, or with an entity controlling such a shareholder, are also considered related party transactions requiring the prior approval of our Board of Directors.

The interested party has the obligation to inform our Board of Directors as soon as it is aware of the existence of the related party transaction, and a majority of our disinterested Directors must approve the transaction.

If a related party transaction is pre-approved by the majority of our disinterested Directors, our Chairman must then report the authorized transaction to our statutory auditors within one month following the entering into of this transaction. The auditors must then prepare a special report on the transaction to be submitted to our shareholders at their next General Meeting, during which our shareholders would consider the transaction for ratification (any interested shareholder would be excluded from voting). If the transaction is not ratified by the shareholders, such absence of ratification would normally and except in the case of fraud have no impact on the validity of the transaction, but the shareholders may in turn hold the Board of Directors or interested representative of the Company liable for any damages suffered as a result thereof.

Any related party transaction concluded without the prior consent of a majority of our disinterested Directors can be voided by a court, if we incur a loss as a result. In addition, an interested related party may be held liable on this basis.

### ***Power to Decide Upon the Compensation of Directors, Chairman and Chief Executive Officer***

Under our *statuts*, the Shareholders Meeting may provide for the payment to the Directors of an annual fixed sum for their attendance at Board meetings (*jetons de présence*). The amount of such compensation remains unchanged until further decision by the shareholder s meeting. The Board of Directors allocates this amount between its members in the manner it deems appropriate.

Under our *statuts*, the Board of Directors has authority to determine the compensation of its Chairman as well as of its Chief Executive Officer and Corporate Officers.

### ***Borrowing powers exercisable by the Directors***

Under French company law and our *statuts*, Directors other than legal entities are forbidden to take out loans from CGG SA in any form whatsoever or to have CGG SA grant them an overdraft in current account or otherwise. It is also forbidden to have CGG SA stand as surety for them or back their commitments in respect of third parties. This prohibition also applies to Executive Officers and to permanent representatives of legal-entity directors. It also applies to the spouses, lineal forebearers or descendants of the persons referred to in this paragraph and also to any trustee.

Also, under article L.225-43 of the French Commercial Code, Directors, executive officers and permanent representatives of legal-entity directors may not borrow money or obtain a guarantee from the Company. Any such loan or guarantee would be void and may not be relied upon by third parties.

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### *Retirement of Directors under an Age Limit Requirement*

Under our *statuts*, the Chairman of the Board's term of office ends, at the latest, after the annual Ordinary Shareholders Meeting following the date on which he reaches the age of 65. However, the Board of Directors may further extend the office of the Chairman, one or more times for a total period not to exceed three years. Our *statuts* also provide that when the offices of Chairman and Chief Executive Officer are held by the same person, the Chief Executive Officer's term of office ends on the same date as that of the Chairman. In accordance with article L.225-19 of the French Commercial Code, no more than one-third of the members of the Board of Directors may be more than 70 years old, unless the *statuts* of the Company provide otherwise. Our *statuts* do not contain any provisions contrary to this limitation.

### *Number of Shares Required for a Director's Qualification*

Under our *statuts*, throughout his term of office, each director must own at least one share. Nevertheless, the internal regulations of the Board provides that each director owns at least five hundred shares of the Company.

### *Share capital*

As of December 31, 2013, our issued share capital amounts to 70,756,346 divided into 176,890,866 shares of the same class with a nominal value of 0.40 per share. The shares are fully paid. Pursuant to our *statuts*, fully paid shares may be held either in registered or in bearer form at the option of the shareholder. The *statuts* also allow us to avail ourselves of a procedure known as *titres au porteur identifiables* by which we may request Euroclear France to disclose the name, nationality, address and the number of shares held by the holders of any of our securities which have, or may in the future have, voting rights. See Form, Holding and Transfer of Shares.

### *Dividend and liquidation rights*

We may only distribute dividends out of our distributable profits, plus any amounts held in our reserves which the shareholders decide to make available for distribution, other than those reserves which are specifically required by law. Distributable profits consist of our unconsolidated net profit in each fiscal year, as increased or reduced by any profit or loss carried forward from prior years, less any contributions to the reserve accounts pursuant to law.

Under French law, before dividends may be paid with respect to any fiscal year, we must contribute a minimum of 5% of our annual unconsolidated net income to a legal reserve fund, until it reaches an amount equal to 10% of our outstanding share capital. The legal reserve is distributable only upon our liquidation.

Our *statuts* provide that the General Shareholders Meeting, either on a recommendation from the Board of Directors or on its own initiative, may allocate all or part of our distributable profits, if any, to one or more special or general reserves or to keep such profits as retained earnings to be carried forward to the next fiscal year. Any remaining distributable profits are distributed to shareholders as dividends in proportion to their holdings. However, except in the case of a decrease in share capital which aims to offset losses, no distribution may be made to shareholders when the shareholders' equity is or would become, as a result of the distribution, less than the amount of the share capital increased by amounts held in reserve accounts pursuant to law. The methods of payment of dividends are determined by the annual General Meeting of shareholders or by the Board of Directors in the absence of a decision by the shareholders. According to our *statuts*, the General Meeting has the power to give each shareholder the option of receiving all or part of its dividend payment in either cash or shares.

If we have earned distributable profits since the end of the preceding fiscal year, as shown on an interim income statement certified by our auditors, the Board of Directors has the authority, without the approval of shareholders, to distribute interim dividends to the extent of such distributable profits for the period covered by the interim income statement.

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Subject to the statement above regarding interim dividends, the payment of dividends is fixed at the ordinary General Meeting of shareholders at which the annual accounts are approved, upon the recommendation of the Board of Directors. Under French law, dividends are normally distributed to shareholders in proportion to their respective holdings. Dividends are payable to all holders of shares, except for treasury stock, issued and outstanding on the date of the Shareholders Meeting approving the distribution of dividends or, in the case of interim dividends, on the date of the Board of Directors meeting approving the distribution of interim dividends. We must make annual dividend payments within nine months of the end of our fiscal year, unless otherwise authorized by a court order. Dividends not claimed within five years of the date of payment revert to the French State.

Our Board of Directors may, at any time and for any reason, propose to an extraordinary General Meeting of shareholders the early dissolution of the Company and we may be placed in liquidation in compliance with the relevant provisions of the French company law. If the Company is liquidated, those of its assets remaining after payment of our debts, liquidation expenses and all of our remaining obligations will be distributed first to repay in full the nominal value of the shares, and the surplus, if any, will be distributed among the shareholders in proportion to the nominal value of their shareholdings.

### ***Changes in share capital***

#### ***Increases in the share capital***

We may increase our share capital either:

by issuing additional shares (either ordinary or preferred shares) or securities giving access, immediately or in the future, to a portion of our share capital; or

by increasing the nominal value of our existing shares.

We may issue additional shares:

for cash;

for assets contributed in kind;

upon the conversion of preferred shares, debt securities or other debt instruments previously issued;

upon the conversion of ordinary shares into preferred shares;

as a result of a merger or a split;

by the capitalization of reserves, retained earnings or issuance premiums;

for cash credits payable by the Company; or

for any combination of the preceding items.

We may increase our share capital only with the approval of the shareholders at an extraordinary General Meeting, following a report of the Board of Directors. However, when a capital increase takes place through capitalization of reserves, retained earnings or issuance premiums, the General Meeting at which the decision to increase the capital is taken follows the quorum and majority requirements of ordinary General Meetings. Increases effected by an increase in the nominal value of shares require unanimous approval of the shareholders, unless effected by capitalization of reserves, retained earnings or issuance premiums. See Attendance and Voting at Shareholders Meetings.

The shareholders may delegate to the Board of Directors (i) the decision to increase the share capital or (ii) after authorizing the increase in share capital, the right to carry out any such increase. The Board of Directors may further delegate this right to the Chief Executive Officer. Each time the shareholders decide on a share capital increase or decide to delegate to the Board of Directors the decision to increase the share capital or the

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right to carry out a capital increase, they must also determine in a separate resolution whether or not to proceed with a capital increase reserved for employees of the Company and its subsidiaries or whether to delegate to the Board of Directors the right to carry out such reserved capital increase.

At a meeting held on May 3, 2013 our shareholders renewed the existing authorization permitting the Board of Directors to increase our share capital, through one or more issuances of securities, by an additional aggregate nominal amount of up to 35,000,000. This authorization is effective for a period not to exceed 26 months. Our shareholders have preferential rights to subscribe for such additional securities. (see Item 7: Principal shareholders – Identity of person or group ).

### *Decreases in share capital*

An extraordinary General Meeting of shareholders also has the power to authorize and implement a reduction in share capital which may be achieved either:

by decreasing the nominal value of our outstanding shares; or

by reducing the number of our outstanding shares.

The number of outstanding shares may be reduced either by an exchange or repurchase of shares and cancellation of shares.

According to French company law, any decrease in our share capital requires approval by the shareholders entitled to vote at an extraordinary General Meeting. In the case of a capital reduction, other than a reduction to absorb losses and a reduction pursuant to a program of acquisition of shares, all holders of shares must be offered the possibility to participate in such a reduction. See Acquisition of our own Shares . All holders of shares in a given class of shares must be treated equally unless each affected shareholder agrees otherwise. Our creditors may oppose a capital reduction during the 20-day period following the registration with the Registry of Commerce of the minutes of the Shareholders Meeting approving the capital reduction if such reduction results from losses. Upon a creditor's request, the *Tribunal de Commerce* may order us to reimburse our creditors or guarantee our debt.

### *Preferential rights to subscribe*

According to French law, our current shareholders have preferential rights on a pro rata basis to subscribe (*droit préférentiel de souscription*) for any issue of additional shares to be subscribed in cash or by set-off of cash debts and to subscribe to any issue of other securities which may either directly or indirectly result in, or carry rights to subscribe for, additional shares issued by us. An Extraordinary Shareholders Meeting may decide to withdraw the shareholders' preferential right to subscribe, either in respect of any specific issue of securities, or more generally, with respect to an authorization by the extraordinary General Meeting, to issue shares or other equity securities, for a duration not to exceed 26 months or 18 months in the case of an authorization given for an issue of securities to identified persons or categories of persons. Shareholders may also individually waive their preferential right to subscribe in respect of any offering. French law requires that the Board of Directors and our statutory auditors present reports that specifically address any proposal to waive preferential subscription rights. In the event of a waiver, the issue of securities must be completed within the period prescribed by law. Preferential rights to subscribe, if not previously waived, are tradable during the subscription period relating to a particular offering of shares and may be quoted on Euronext Paris. In the event that the preferential rights of shareholders are withdrawn, the Shareholders Meeting has the power to grant, or to authorize the Board of Directors to grant, existing shareholders a non-transferable priority right (*délai de priorité*) to subscribe for new shares issued during a minimum period of three trading days.

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*Attendance and voting at Shareholders Meetings*

*General*

In accordance with French law, General Shareholders Meetings may be ordinary or extraordinary. Ordinary General Meetings of shareholders are required for matters such as:

the election, replacement and removal of directors;

the appointment of statutory auditors;

the approval of annual accounts;

more generally, all decisions which do not require the approval of the extraordinary General Meeting of the shareholders; and

the declaration of dividends or the authorization for dividends to be paid in shares.

Extraordinary General Meetings of shareholders are required for approval of all matters and decisions involving:

changes in our *statuts* (including changing our corporate purposes);

increasing or reducing our share capital;

change of nationality of the Company, subject to certain conditions as described in article L.225-97 of the French Commercial Code;

extending or abridging the duration of the Company;

mergers and spin-offs;

creation of a new class of shares;

issuance of debt securities;

authorization of notes or other securities giving access, immediately or in the future, to a portion of our share capital;

transformation of our Company into another legal form; and

voluntary liquidation of our Company before the end of its statutory term.

*Annual Ordinary Meetings*

Our Board of Directors must convene the annual ordinary General Meeting of shareholders each year for approval of the annual accounts. This meeting must be held within six months of the end of our fiscal year, unless such time is extended by an order of the President of the *Tribunal de Commerce* pursuant to a request. Other ordinary or extraordinary meetings may be called at any time during the year. Meetings of shareholders may be convened by the Board of Directors or, in the circumstances prescribed by law, if the Board of Directors fails to call such a meeting, by our statutory auditors or by an administrator appointed by the President of the *Tribunal de Commerce* or by a shareholder holding the majority of the share capital or voting rights following a public offer or the transfer of a block trade. Any of the following may request the President of the *Tribunal de Commerce* to appoint an administrator:

one or several shareholders holding in the aggregate at least 5% of our share capital;

any interested parties in cases of emergency;

the workers' committee in case of emergency; or

an association of shareholders who have held the shares in registered form for at least two years and holding, in the aggregate, at least 1% of our voting rights.

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### *Notice of Shareholders Meetings*

French law requires that a preliminary notice (*avis de réunion*) of a General Meeting of a listed company be published in the *Bulletin des Annonces Légales Obligatoires* ( BALO ) at least 35 days before the date set for the meeting. Such preliminary notice, the text of the resolutions proposed by the Board of Directors, the resolutions or the points presented by the shareholders together with the aggregate number of voting rights and shares of the Company and certain documents useful for the meeting must be published on the Company's website at least 21 days (or 15 days in case of a takeover bid) before the date of the meeting. A copy of the preliminary notice can first be sent to the *Autorité des marchés financiers* (the AMF ), the self-regulatory organization that has general regulatory authority over the French regulated exchanges, with an indication of the date of its publication in the BALO. The preliminary notice of a General Meeting must mainly state the details of the Company and information about the voting process and the meeting, the matters to be discussed at the meeting and the draft of the resolutions to be discussed, but also describe how the shareholders can request the inclusion of points or draft resolutions or questions on the agenda of the General Meeting as well as information regarding the vote by proxy, the address of the Company website, the date of registration of the securities and how and when to consult the final text. The agenda of the meeting and the draft of the resolutions to be discussed, such as described in the preliminary notice, may only be modified between the date of publication of the preliminary notice and the twenty-first day preceding the General Meeting. From the date of publication until 25 days before the date of the General Meeting (or within 10 days from the date of the General Meeting in case of a takeover bid), additional resolutions to be submitted for approval by the shareholders or points to be discussed at the meeting may be proposed to the Board of Directors by:

one or more shareholders holding, in the aggregate, a certain percentage of our share capital (0.5% to 4% determined on the basis of a statutory formula relating to capitalization); or

a duly authorized association of shareholders who have held their shares in registered form for at least two years and holding, in the aggregate, at least 1% of our voting rights.

The Board of Directors must submit these resolutions to a vote of the shareholders.

At least 15 days before the date set for any General Meeting on first call, and at least 10 days before any General Meeting on second call (and at least 6 and 4 days, respectively, in case of takeover bid), we must send a notice (*avis de convocation*) by mail, or by electronic mail if accepted by the holder of registered shares, to all holders of registered shares who have held such shares for more than one month prior to the date of the notice. Notice of the meeting must also be given by publication in a journal authorized to publish legal announcements in the local administrative department (*département*) in which we are registered as well as in the BALO, with prior notice having been given to the AMF. Such a notice must mainly include the details of the Company, as well as a description of the type, agenda, place, date and time of the meeting and other information about the voting process. With the sole exception of removal and replacement of Directors (which may be discussed at any meeting), any matter which does not appear on the agenda may not be discussed at the meeting.

### *Attendance and voting at Shareholders Meetings*

Attendance and exercise of voting rights at both ordinary and extraordinary General Meetings of shareholders are subject to certain conditions. A shareholder does not need to have a minimum number of shares in order to be able to attend or be represented at an extraordinary General Meeting. Any statutory provision to the contrary is null and void. In order to participate in any General Meeting, a holder of registered shares must have paid up its shares and have its shares registered in his name or in the name of the accredited financial intermediary referred to in article L.228-1 of the French Commercial Code in a shareholder account maintained by us or on our behalf three business days prior to the meeting. Similarly, a holder of bearer shares must obtain from the accredited financial intermediary (*intermédiaire financier habilité*) with whom such holder has deposited its shares a statement of holdings and send it to the location specified in the notice of the meeting three business days before the meeting convenes.



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### *Proxies and Votes by Mail*

Subject to the foregoing, all shareholders have the right to participate in General Meetings, either in person, by a proxy or by mail and, subject only to any applicable laws, may vote according to the number of shares they hold. Proxies may be granted by a shareholder to:

another shareholder;

his or her spouse;

the person with whom the shareholder has entered into a civil solidarity pact ( PACS );

any other natural or legal person of his or her choice.

The shareholder must write and send us the proxy.

In case the proxy is given to someone else than the shareholder's spouse or the person with who a PACS has been concluded, the proxy must inform the shareholder of any conflict of interest by registered letter in accordance with article L.225-106-1 of the French Commercial Code.

Alternatively, the shareholder may send us a blank proxy without nominating any representative. In that case, the Chairman of the Shareholders Meeting will vote the shares with respect to which such blank proxy has been given in favor of all resolutions proposed or approved by the Board of Directors and against all others. We will send proxy forms to any shareholder on request, provided such request is received by the Company at least six days before the date of the relevant General Meeting. In order to be counted, we must receive proxy forms at our registered office or at such other address indicated in the notice convening the meeting prior to the date of the relevant General Meeting. With respect to voting by mail, we must send our shareholders a form of such vote and we must receive the form at least three days prior to the date of the relevant General Meeting.

### *Quorum*

Under French law, a quorum requires the presence in person or voting by mail or by proxy of shareholders representing, in the aggregate, not less than:

20% of the shares entitled to vote (in the case of an ordinary General Meeting convened on first call, an extraordinary General Meeting convened on second call or an extraordinary General Meeting convened on first call, if deciding upon any capital increase by capitalization of reserves, retained earnings or share premium); or

25% of the shares entitled to vote (in the case of any other extraordinary General Meeting convened on first call).

No quorum is required in the case of an ordinary General Meeting convened on second call or an extraordinary General Meeting convened on second call, if deciding upon any capital increase by capitalization of reserves, retained earnings or share premium.

If a quorum is not present at any meeting on first call, the meeting is adjourned and reconvened, and in the case of an extraordinary General Meeting, for a date not more than two months later. When a General Meeting is reconvened, only questions which were on the agenda of the adjourned meeting may be discussed and voted upon.

Any shareholder may also, if the Board of Directors or its Chairman allows at the time of the convocation to a General Meeting, attend the meeting via video-conference or by means of electronic telecommunication or tele-transmission subject to, and in accordance with, the conditions laid down by the legislation or the regulations then in force. This shareholder is then considered to be present at the meeting when calculating the quorum and the majority.



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### *Majority*

At an ordinary General Meeting or an extraordinary General Meeting deciding upon any capital increase by capitalization of reserves, retained earnings or share premium, a simple majority of votes cast by the shareholders present or represented at such meeting is required to pass a resolution. At any other extraordinary General Meeting, a two-thirds majority of votes cast is required to pass a resolution. A unanimous vote, however, is required to increase the liabilities of shareholders. Abstention from voting by those present or represented by proxy or voting by mail is viewed as a vote against the resolutions submitted to a vote.

Our *statuts* provide that, as from May 22, 1997, each share that is fully paid and has been held in registered form by the same shareholder for a period of at least two consecutive years will entitle such shareholder to two votes. In the event of capital increases effected by an attribution of new shares, as a result of the incorporation of reserves, retained earnings or issuance premiums, the shares attributed by reason of and proportionately to the ownership of shares holding double voting rights are immediately granted double voting rights as if they themselves had fulfilled the requirements therefore. Under French company law, shares that have to be transferred pursuant to laws and regulations applicable to cross-shareholdings, as well as shares held by entities controlled directly or indirectly by us, are not entitled to voting rights. In the latter case, the shares do not count for quorum or majority purposes.

### *Acquisition of our own shares*

Under French law, our Company may not issue shares to itself either directly or through a financial intermediary acting on our behalf. However, exceptionally, we may, either directly or through a financial intermediary acting on our behalf, purchase our shares:

- (1) to reduce our share capital (albeit not to absorb losses), canceling the shares we purchase, with our shareholders' approval at an extraordinary General Meeting;
- (2) to provide shares to our employees under a profit sharing plan or stock option plan; or
- (3) in the context of a share repurchase program that allows us to acquire up to 10% of our share capital for a maximum period of 18 months. To acquire shares in the context of a share repurchase program, we must first obtain our shareholders' approval at an ordinary General Meeting and make public a description of such program prior to its launch.

We may not repurchase under either (2) or (3) above an amount of shares that would result in our Company holding, directly or through a person acting on our behalf, more than 10% of our outstanding share capital, without canceling the said 10% first. In addition, we may not cancel more than 10% of our outstanding share capital over any 24-month period.

We must hold any shares we repurchase in registered form. These shares also must be fully paid up. Shares repurchased by us are deemed outstanding under French law but are not entitled to dividends or voting rights and we may not ourselves exercise preferential subscription rights. Such shares do not count for quorum or majority purposes (such repurchase may therefore trigger threshold crossings, see *Requirements for Holdings Exceeding Certain Percentages*). The shareholders, at an extraordinary General Meeting, may decide not to take such shares into account in determining the preferential rights to subscribe attached to the other shares (if such a decision is not taken, these rights must be either sold on the market before the end of the subscription period or distributed to the other shareholders on a pro rata basis).

A direct subsidiary is generally prohibited by French law from holding shares in its parent and, in the event it becomes a holder of shares, such subsidiary must transfer such shares within one year following the date on which it becomes the holder thereof. An indirect subsidiary may only acquire shares if such subsidiary demonstrates a business purpose for holding the shares but in no event will it be entitled to vote such shares.

At the Shareholders' Meeting held on May 3, 2013, our shareholders renewed the existing authorization to acquire up to 10% of our share capital through purchases of shares and to resell shares so acquired for the 18 months following the date of such meeting.

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Under such authorization, we are allowed to carry out transactions on our shares with the following objectives:

to support liquidity of our shares through a liquidity contract entered into with an investment service provider in compliance with the Code of Practice of the French *Autorité des Marchés Financiers*,

to allocate shares in the scope of securities giving access, immediately or in the future, to shares by redemption, conversion, exchange, presentation of a warrant or by any other means,

to allocate, immediately or in the future, shares in exchange in the scope of external growth within the limit of 5% of the share capital,

to allocate shares to employees and officers of the Company affiliated companies within the meaning of article L.225-180 of the French Commercial Code, especially in the scope of options to purchase shares of the Company,

to allocate free shares for no consideration to employees and senior Executive Officers, including in the framework of employee shareholding plans. These annual plans would not represent more than 0.21% of the Company's share capital for all employees and senior Executive Officers or more than 0.02% of the Company's share capital for the members of the Corporate Committee (including the senior Executive Officers). These plans would be subject to cumulative presence and performance conditions evaluated over a three-year period,

to cancel the shares through a capital reduction, subject to a decision of, or an authorization, by the extraordinary General Meeting. In accordance with these objectives (save for liquidity contracts), and subject to the provisions of the European Commission Regulation Number 2273/2003 of December 22, 2003, the treasury shares so acquired may be either cancelled, sold or otherwise transferred. The shares may be acquired, sold or transferred, on one or several occasions, by any means, including by individual agreement or market purchase, by an offer to buy, or in a block of shares and at any moment, but not during a take-over bid. The maximum amount of share capital that can be purchased or transferred as block of shares can be up to the total authorized amount under this program.

The General Meeting approved a maximum purchase price of 40.

The maximum number of shares that we are entitled to hold is 10% of our share capital as at the time of the purchase, less any shares acquired under previous authorizations. Notwithstanding the above, pursuant to article L.225-209, paragraph 6 of the French Commercial Code, the number of shares that may be acquired and retained for possible use for payment or exchange in the context of a merger, demerger or contribution may not exceed 5% of the share capital.

This authorization was granted for a period of 18 months from May 3, 2013 and cancelled and replaced the authorization granted to the Board of Directors by the General Meeting held on May 10, 2012. This share repurchase plan was not implemented in 2013.

As of December 31, 2013, we still held 800,000 of our own shares.

***Trading in our own shares***

Under European Commission Regulation Number 2273/2003 of December 22, 2003 applicable in France since October 13, 2004, trades by a company in its own shares are deemed valid when the following conditions are met:

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each purchase must not be made at a price higher than the higher of the price of the last independent trade and the highest current independent bid on Euronext Paris;

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if we carry out the purchase of our own shares through derivative financial instruments, the exercise price of those derivative financial instruments must not be above the higher of the price the last independent trade and the highest current independent bid; and

the purchase must not account for more than 25% of the average daily trading volume on Euronext Paris in the shares during the twenty trading days immediately preceding the purchase.

However, there are two periods during which we are not permitted to trade in our own securities: the 15-day period before the date on which we make our consolidated annual accounts public, and the period beginning on the date on which we become aware of information that, if disclosed, would have a significant impact on the market price of our securities and ending on the date this information is made public.

We must file a report with the AMF every six months as well as at entry into force, amendment or termination of the liquidity arrangement containing the assessment of such arrangement. Such report is then posted on our website. In addition, we must also file with the AMF a monthly report containing details of all transactions relating to our shares that we may have carried out during the month.

***Form, holding and transfer of shares***

**Form of Shares.** Our statuts provide that our fully paid shares may be held in either registered or bearer form at the option of the shareholder. We may avail ourselves of the procedure known as titres au porteur identifiables, according to which we are entitled to request Euroclear France to disclose the name, nationality, address and the number of shares held by holders of those securities of ours which have, or which may in the future acquire, voting rights.

**Holding of Shares.** In accordance with French law concerning dematerialization of securities, the ownership rights of holders of shares are represented by book entries rather than by share certificate. According to our statuts, registered shares are entered into an account held by us or by a representative nominated by us, while shares in bearer form are placed in an account held by an accredited financial intermediary (*intermédiaire financier habilité*).

We maintain a share account with Euroclear France in respect of all shares in registered form, which, in France, is administered by BNP Paribas Securities Services, acting on our behalf as our agent. Shares held in registered form are inscribed in the name of each shareholder (either directly, or, at the shareholder's request, through such shareholder's accredited financial intermediary) in separate accounts maintained by BNP Paribas Securities Services on our behalf. Each shareholder account shows the name of the holder and the number of shares held and, in the case of shares inscribed through an accredited financial intermediary, shows that they are so held. BNP Paribas Securities Services, as a matter of course, issues confirmations to each registered shareholder as to holdings of shares inscribed in the shareholder's accounts, but these confirmations do not constitute documents of title.

Shares held in bearer form are held and inscribed on the shareholder's behalf in an account maintained by an accredited financial intermediary with Euroclear France separately from our share account with Euroclear France. Each accredited financial intermediary maintains a record of shares held through it and will issue certificates of inscription in respect thereof. Shares held in bearer form may only be transferred effected through accredited financial intermediaries and Euroclear France. As noted above, our statuts allow us to request from Euroclear France details concerning the identity of the holders of shares in bearer form at any time.

**Transfer of Shares.** Our statuts do not contain any restrictions relating to the transfer of shares. An owner of shares resident outside France may trade such shares on Euronext Paris. Should such owner (or the broker or other agent) require assistance in this connection, an accredited financial intermediary should be contacted.

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Prior to any transfer of shares held in registered form on Euronext Paris, such shares must be converted into bearer form and, accordingly, must be registered in an account maintained by an accredited financial intermediary. A shareholder may initiate a transfer by giving instructions (through an agent if appropriate) to the relevant accredited financial intermediary.

### ***Requirements for holdings exceeding certain percentages***

French company law provides that any individual or entity, who acting alone or in concert with others, acquires more than 5%, 10%, 15%, 20%, 25%, 30%, 33 1/3%, 50%, 66 2/3%, 90% or 95% of our outstanding shares or voting rights thereof or whose shareholding falls below any such percentage must notify us at the latest by the closure of the fourth trading day following the date the threshold has been crossed of the number of shares it holds and of the voting rights attached thereto. Such individual or entity must also notify the AMF within the same period.

In order to permit holders of our shares to give the notice required by law, we must monthly, in accordance with article 221-3 of the *Règlement Général* of the AMF, post (including on the Company website) information with respect to the total outstanding number of voting rights and shares if these have changed and provide the AMF with a written notice.

If any person fails to comply with the legal notification requirement, the shares or voting rights in excess of the relevant threshold will be deprived of voting rights for all Shareholders Meeting until the end of a two-year period following the date on which the owner thereof complies with the notification requirements. In addition, any shareholder who fails to comply with the above requirements may have all or part of its voting rights (and not only with respect to the shares in excess of the relevant threshold) suspended for up to five years by the Tribunal de Commerce at the request of our Chairman, any shareholder or the AMF, and may be subject to criminal penalties.

French company law imposes additional reporting requirements on persons who acquire more than 10%, 15%, 20% or 25% of our outstanding shares or voting rights. These persons must file a report with us and the AMF at the latest by the closure of the fifth trading day following the date they cross the threshold. In the report, the acquirer must specify his intentions for the following six-month period, including whether or not it intends to continue its purchases, to acquire control of our Company or to seek nomination to our Board of Directors. In addition, the acquirer must also provide information on its strategy, the means of financing its acquisition, any stock lending or stock borrowing agreement and regarding whether or not it is acting in concert with another party. The AMF makes the notice public. The acquirer can amend its stated intentions in case of changes and in such case, this latter must file a new report which opens a new six-month period. Failure to comply with the reporting requirements or to abide by the stated intentions may result in a sanction similar to that applicable to failure to comply with the legal notification requirement.

In addition to the provisions of French company law, our statutes provide that any shareholder who directly or indirectly acquires ownership or control of shares representing 1% or any multiple thereof of our share capital or voting rights, or whose shareholding falls below any such limit, must inform us within five trading days of the crossing of the relevant threshold, of the number of shares then owned by such shareholder. Failure to comply with these notification requirements may result, at the request, recorded in the minutes of the General Meeting, of one or several shareholders holding at least 1% of the capital, in the shares in excess of the relevant threshold being deprived of voting rights for all shareholder meetings until the end of a two-year period following the date on which the owner thereof has complied with such notification requirements.

Compulsory Tender. The AMF Regulations provide that a shareholder, acting alone, or shareholders acting in concert, as these terms are defined in article L.233-10 of the French Commercial Code, who come to own directly or indirectly more than 30% of the voting rights or share capital of a French company listed on a regulated market in France must immediately notify the AMF, and submit a compulsory tender for all the shares

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of capital and all securities giving access to the share capital or voting rights of such company. The tender must be submitted on terms acceptable to the AMF. Any person acting alone or in concert is under the same obligation of notification and compulsory offer if, further to a merger or a contribution, he or she ends up to hold more than 30% of the shares or voting rights of a French company listed on a regulated market.

In addition, the same obligation applies to any shareholder acting alone or shareholders acting in concert who, owning directly or indirectly between 30% and 50% of the voting rights or share capital of a French company listed on a regulated market in France, increase their interest by more than 2% of the existing total number of shares or voting rights over a maximum period of twelve consecutive months.

The AMF is vested with the power to grant relief from the obligation to tender for all of the shares of the target company and may consider certain exemptions when petitioned for such relief by the acquiring shareholders. These exemptions primarily concern previous control of the target company or a commitment to divest within a given period.

**Material contracts**

The following contracts (not being contracts entered into in the ordinary course of business) have been entered into by us or our subsidiaries within the two years immediately preceding the date of this document and are, or may be, material:

***Sale and Purchase Agreement relating to the Geoscience Business between Fugro N.V. (as the Seller) and CGGVeritas (as the Purchaser) dated September 23, 2012 and amended on January 27, 2013.***

This agreement provides for our acquisition of most of Fugro's Geoscience Division, as described under Item 4: Information on the Company Introduction The Geoscience Acquisition and Item 5: Operating and Financial Review and Prospects Factors affecting our results of operations Acquisitions and divestitures.

***Joint Venture Agreement relating to Seabed Geosolutions B.V. between Fugro Consultants International N.V. and CGGVeritas dated January 27, 2013, and amended on February 16, 2013.***

This agreement provides for our establishment with Fugro of a joint venture (Seabed Geosolutions B.V. (the Seabed JV)), to which Fugro contributed its OBN activity and we contributed our shallow water, ocean bottom cable and OBN activities. The Seabed JV was substantially closed on February 16, 2013. We hold a 40% stake in the Seabed JV and Fugro holds the remaining 60%.

***Agreements with the lenders under our US and French credit agreements relating to the transactions in connection with the acquisition of Fugro Geoscience Division and the establishment of the Seabed joint venture.***

On December 11, 2012, the lenders under our US senior secured credit agreement dated January 12, 2007, as amended and restated, agreed to a waiver in respect of the transactions to be implemented by us in connection with the acquisition of Fugro Geoscience Division and the establishment of the Seabed joint venture.

On December 21, 2012, the lenders under our French revolving credit agreement dated February 7, 2007, as amended, agreed to a waiver in respect of the transactions to be implemented by us in connection with the acquisition of Fugro Geoscience Division and the establishment of the Seabed joint venture. This agreement was formalized by an amendment agreement dated December 21, 2012 documenting the changes requested. This amendment also provided for the confirmation, modification or replacement certain of security interests created under the Security Documents (as such term is defined in the French credit agreement) concluded in accordance with the French credit agreement. The modification or replacement of existing security was implemented only as required by local law and did not extend to assets that were not subject to an existing security.



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These credit facilities were subsequently replaced by our new US\$165 million revolving credit facility dated July 15, 2013 and our new US\$325 million revolving credit facility dated July 31, 2013, respectively.

### ***Issuance of bonds convertible into and / or exchangeable for new or existing shares maturing on January 1, 2019 (2019 OCEANE).***

See Item 5: Operating and Financial Review and Prospects Liquidity and Capital Resources Financing Arrangements Other Debt Securities OCEANE convertible bonds for a description of our 2019 OCEANE convertible bonds.

### ***US\$200 million term loan and credit facility dated July 1, 2013***

See Item 5: Operating and Financial Review and Prospects Liquidity and Capital Resources Financing Arrangements Other Credit Facilities US\$200 million term loan and revolving facilities for a description of our US\$200 million term loan and revolving facilities agreement dated July 1, 2013.

### ***US\$165 million revolving credit agreement dated July 15, 2013***

See Item 5: Operating and Financial Review and Prospects Liquidity and Capital Resources Financing Arrangements US\$165 million Revolving Credit Agreement (US revolving facility) for a description of our US\$165 million revolving credit agreement dated July 15, 2013. This credit facility replaced our previous US credit facility dated January 12, 2007.

### ***US\$325 million revolving credit agreement dated July 31, 2013***

See Item 5: Operating and Financial Review and Prospects Liquidity and Capital Resources Financing Arrangements US\$325 million Revolving Credit Agreement (French revolving facility) for a description of our US\$325 million revolving credit agreement dated July 31, 2013. This credit facility replaced our previous French revolving credit facility dated February 7, 2007.

## **Exchange controls**

### ***Ownership of ADSs or shares by Non-French Persons***

Other than as described above, under French law, there is no limitation on the right of non-resident or foreign shareholders to own or to exercise their voting rights attached to the securities they hold in a French company.

Pursuant to the French Monetary and Financial Code, administrative authorization is no longer required of non-European residents prior to acquiring a controlling interest in a French company, with exceptions regarding sensitive economic areas such as defense, public health, etc. However a notice (déclaration administrative) must be filed with the French Ministry of the Economy in certain circumstances and in particular for the acquisition of an interest in us by any person not residing in France or any foreign controlled resident if such acquisition would result in (i) the acquisition of a controlling interest of more than 33.33% of our share capital or voting rights or (ii) the increase of a controlling interest in us unless such person not residing in France or group of non-French residents already controls more than 50% of our share capital or voting rights prior to such increase. In certain circumstances (depending upon such factors as the percentage and value of the acquired part of our share capital), an additional declaration, for statistical purposes shall be filled with the Banque de France.

### ***Exchange controls***

Under current French exchange control regulations, there are no limitations on the amount of payments that may be remitted by us to non-residents. Laws and regulations concerning foreign exchange control do require,

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however, that all payments or transfers of funds (including payments of dividends to foreign shareholders) made by a French resident to a non-resident be handled by an accredited intermediary. In France, all registered banks and substantially all credit establishments are accredited intermediaries.

### **Taxation**

The following summarizes the material French tax and US federal income tax consequences to US Holders (as defined below) of the ownership and disposal of ADSs.

For the purposes of this discussion, a US Holder means a beneficial owner of ADSs that is:

an individual who is a citizen or resident of the United States for US federal income tax purposes;

a corporation, or other entity treated as a corporation, created or organized in or under the laws of the United States or of any State thereof;

an estate the income of which is subject to United States federal income taxation regardless of its source; or

a trust if a court within the United States is able to exercise primary supervision over the trust and one or more US persons have the authority to control all substantial decisions of the trust, or the trust has validly elected to be treated as a domestic trust for US federal income tax purposes.

This discussion is not a complete description of all of the tax consequences of the ownership or disposition of ADSs. The summary assumes that each obligation in the deposit agreement between The Bank of New York and us (the Deposit Agreement) and any related agreement will be performed in accordance with its terms and is based on the current tax laws of the Republic of France and the United States, including the US Internal Revenue Code of 1986, as amended (the Code), its legislative history, existing and proposed Treasury Regulations, Internal Revenue Service (IRS) rulings and judicial opinions as well as the Convention between the United States and the Republic of France for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital dated August 31, 1994 (the Treaty), the 2004 Protocol amending the Treaty entered into force on December 21, 2006, and the 2009 Protocol amending the Treaty entered into force on December 23, 2009, all as currently in effect and all subject to change, possibly with retroactive effect.

Your individual circumstances may affect the tax consequences of the ownership or disposition of ADSs to you, and your particular facts or circumstances are not considered in the discussion below.

For purposes of the Treaty, French tax law and the Code, US Holders of ADSs will be treated as owners of the corresponding number of our shares underlying those ADSs held by The Bank of New York as depositary (the Depositary).

This discussion summary is not intended to apply to holders of ADSs in particular circumstances, such as:

investors that own (directly or indirectly) 10% or more of our voting stock;

banks;

dealers in securities or currencies;

traders in securities who elect to apply a mark-to-market method of accounting;

financial institutions;

regulated investment companies;

real estate investment trusts;

tax-exempt organizations;

insurance companies;

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persons holding ADSs as part of a hedging, straddle, conversion or other integrated transaction;

US Holders who hold ADSs other than as capital assets;

persons whose functional currency is not the US dollar;

certain US expatriates;

individual retirement accounts and other tax-deferred accounts;

partners in partnerships;

persons subject to the US alternative minimum tax; and

persons who acquired ADSs pursuant to an employee stock option or otherwise as compensation.

You should consult your own tax advisor regarding the French and United States federal, state and local and other tax consequences of the purchase, ownership and disposition of ADSs in the light of your particular circumstances, including the effect of any state, local or other national laws. In particular, you should confirm whether you are eligible for the benefits of the Treaty with your advisor and should discuss any possible consequences of failing to be so eligible. You should also consult your tax advisor in the event that you become entitled to receive any dividend that is approved to be paid.

The US federal income tax treatment of a partner in an entity treated as a partnership for US federal income tax purposes that holds ADSs will depend on the status of the partner and the activities of the partnership. Holders that are entities treated as partnerships for US federal income tax purposes should consult their tax advisers concerning the US federal income tax consequences to their partners of the ownership and disposition of ADSs by the partnership.

***French taxation***

The following describes the material French tax consequences of owning and disposing of ADSs relevant to US Holders which do not hold their ADSs in connection with a permanent establishment or fixed base in France through which a holder carries on business or performs personal services in France. The statements relating to French tax laws set out below are based on the laws in force as at the date hereof, and are subject to any changes in applicable French tax laws or in any applicable double taxation conventions or treaties with France occurring after such date.

This discussion is intended only as a descriptive summary and does not purport to be a complete analysis or list of all potential tax effects of the purchase or ownership of ADSs.

***Taxation of dividends***

France generally imposes a 30% withholding tax on dividends distributed in cash or in the form of shares by a French corporation (such as our Company) to shareholders who are residents of the United States. Furthermore, dividends paid outside of France in a non-cooperative state or territory (*Etat ou territoire non-coopératif*) as defined in Article 238-0 A of the French Tax Code (i.e. a state or territory included in a list to be updated and published each year by way of an order (*arrêté*) of the French Ministers in charge of the economy and the budget) are subject to French withholding tax at a rate of 75%. However, the Treaty generally reduces the withholding tax rate to 15% on dividends paid in cash or in the form of shares to an Eligible US Holder (as defined below).

Under the Treaty, an Eligible US Holder is a US Holder whose ownership of ADSs is not attributable to a permanent establishment or fixed base in France and who is:

an individual or other non-corporate holder; or

a corporation that does not own, directly or indirectly, 10% or more of the capital of our Company, provided in each case that such holder;

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is a resident of the United States under the Treaty;

is entitled to Treaty benefits under the limitation on benefits provisions in Article 30 of the Treaty; and

complies with the procedural rules to obtain Treaty benefits described below under **Taxation of Dividends Procedure to Obtain Treaty Benefits** .

***Taxation of dividends procedure to obtain treaty benefits***

Eligible US Holders must follow certain procedures in order to be eligible for the 15% dividend withholding tax under the Treaty.

An Eligible US Holder who wishes to obtain a reduced withholding rate at source must complete and deliver to the US financial institution that is in charge of the administration of the ADSs of that Eligible US Holder a Treaty form establishing that such US Holder is a US resident for the purpose of the Treaty (Form 5000).

If Form 5000 is not filed prior to the dividend payment, we or the French paying agent will withhold tax from the dividend at the above rate of 30%, and the Eligible US Holder will be entitled to claim a refund of the excess withholding tax by filing Form 5001 with the Depository or the French paying agent early enough to enable them to forward that application to the French tax authorities before December 31 of the second year following the calendar year in which the related dividend was paid.

The Depository will provide to all US Holders of ADSs the applications or certificates, together with instructions, and will arrange for the filing with the French tax authorities of all applications and certificates completed by US Holders of ADSs and returned to the Depository in sufficient time to complete the filing.

Form 5000 and Form 5001 and their respective instructions are available at the *trésorerie des non-résidents* (10, rue du Centre, 93160 Noisy-le-Grand, France). Copies of these forms may also be downloaded from the website of the French tax authorities ([www.impots.gouv.fr](http://www.impots.gouv.fr)).

***Taxation on sale or disposal of ADSs***

Subject to the provisions of any relevant double tax treaty, persons who are not French residents for the purpose of French taxation (as well as, under certain conditions, foreign states, international organizations and certain foreign public bodies), who are not established or domiciled in a non cooperative state and who have held not more than 25%, directly or indirectly, of the dividend rights (*droits aux bénéfices sociaux*) of our Company at any time during the preceding five years, are not generally subject to any French income tax or capital gains tax on any sale or disposal of ADSs.

If a transfer of listed shares is evidenced by a written agreement, such share transfer agreement is, in principle, subject to registration formalities and therefore to a registration duty assessed on the higher of the purchase price or the market value of the shares, at the rate of 0.1%. Transfers subject to the French financial transaction tax are exempted from the 0.1% registration duty, where applicable.

Transfers of listed shares and certain other equity-linked instruments (including American depositary shares) that are admitted to trading on a French or foreign regulated or recognized market, issued by companies having their registered seat in France and whose market capitalization exceeds 1 billion as at December 1 of the year preceding the relevant taxable year, are subject to French financial transaction tax, at the rate of 0.2%, subject to certain exemptions.

***French estate and gift taxes***

Pursuant to **The Convention Between the United States of America and the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritance and Gifts** dated November 24, 1978 as amended by a protocol dated December 8, 2004, a transfer of

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ADSs by gift or by reason of the death of a US Holder will not be subject to French gift or inheritance tax, unless (i) the donor or the transferor is domiciled in France at the time of making the gift or at the time of his or her death, or (ii) the ADSs were used in, or held for use in, the conduct of a business through a permanent establishment or fixed base in France. In such a case, the French gift or inheritance tax may be credited against the US gift or inheritance tax. This tax credit is limited to the amount of the US gift or inheritance tax due on the ADSs.

### *French wealth tax*

The French wealth tax (*impôt de solidarité sur la fortune*) does not generally apply to a US Holder who is a resident of the United States as defined in the provisions of the Treaty, unless the ADSs form part of the business property of a permanent establishment or fixed base in France.

### **United States taxation**

The following summary assumes that we will not be a passive foreign investment company (a PFIC) for US federal income tax purposes, which we expect to be the case. Our possible status as a PFIC must be determined annually and therefore may be subject to change. If we were to be a PFIC in any year, materially adverse consequences could result for US Holders.

**THE SUMMARY OF US FEDERAL INCOME TAX CONSEQUENCES SET OUT BELOW IS FOR GENERAL INFORMATION ONLY. US HOLDERS SHOULD CONSULT THEIR TAX ADVISERS AS TO THE PARTICULAR TAX CONSEQUENCES TO THEM OF OWNING THE ADSs, INCLUDING THEIR ELIGIBILITY FOR THE BENEFITS OF THE TREATY, THE APPLICABILITY AND EFFECT OF STATE, LOCAL, NON-US AND OTHER TAX LAWS AND POSSIBLE CHANGES IN TAX LAW.**

### *Dividends*

General. Distributions paid on our shares out of current or accumulated earnings and profits (as determined for US federal income tax purposes), before reduction for any French withholding tax paid by us with respect thereto, will generally be taxable to a US Holder as foreign source dividend income in the year in which the distribution is received (which, in the case of a US Holder of ADSs, will be the year of receipt by the Depository), and will not be eligible for the dividends received deduction allowed to corporations. Distributions in excess of current and accumulated earnings and profits will be treated as a non-taxable return of capital to the extent of the US Holder's basis in the ADSs and thereafter as capital gain. However, we do not maintain calculations of our earnings and profits in accordance with US federal income tax accounting principles. US Holders should therefore assume that any distribution by us with respect to our ordinary shares will be reported as ordinary dividend income. US Holders should consult their own tax advisors with respect to the appropriate US federal income tax treatment of any distribution received from us.

Dividends paid by us generally will be taxable to a non-corporate US Holder at the special reduced rate normally applicable to capital gains, provided either we qualify for the benefits of the Treaty or the ADSs are considered to be readily tradable on the NYSE. A US Holder will be eligible for this reduced rate only if it has held the ADSs for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date. A US Holder will not be able to claim the reduced rate for any year in which we are treated as a PFIC or any year immediately following a year in which we are treated as a PFIC. See *Passive Foreign Investment Company Status* below.

Foreign Currency Dividends. Dividends paid in euro will be included in income in a US dollar amount calculated by reference to the exchange rate in effect on the day the dividends are received by the Depository, regardless of whether the euro are converted into US dollars at that time. If dividends received in euro are converted into US dollars on the day they are received by the Depository, the US Holder generally will not be required to recognize foreign currency gain or loss in respect of the dividend income.

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***Effect of french withholding taxes***

As discussed above under **Taxation French Taxation Taxation of Dividends**, under French domestic law, dividends paid by us to a United States resident shareholder are subject to a 30% withholding tax (75% in the case of dividends paid outside France in a non-cooperative state or territory). Please see **Taxation French taxation Taxation of Dividends**. Under the Treaty, however, the rate of withholding tax applicable to Eligible US Holders is reduced to a maximum of 15%. Please see **Taxation French Taxation Taxation of Dividends Procedure to Obtain Treaty Benefits** for the procedure to claim the reduced rate of withholding tax under the Treaty.

A US Holder will generally be entitled, subject to certain limitations, to a credit against its US federal income tax liability, or a deduction in computing its US federal taxable income, for any French income taxes withheld from a dividend. Eligible US Holders will not be entitled to a foreign tax credit for the amount of any French taxes withheld in excess of the 15% maximum rate, and with respect to which the holder can obtain a refund from the French taxing authorities. For purposes of the foreign tax credit limitation, foreign source income is classified in one of two baskets, and the credit for foreign taxes on income in any basket is limited to US federal income tax allocable to that income. Dividends paid by us generally will constitute foreign source income in the passive category income basket. If a US Holder receives a dividend from us that qualifies for the reduced rate described above under **United States Taxation Dividends General**, the amount of the dividend taken into account in calculating the foreign tax credit limitation will in general be limited to the gross amount of the dividend, multiplied by the reduced rate divided by the highest rate of tax normally applicable to dividends. In certain circumstances, a US Holder may be unable to claim foreign tax credits (and may instead be allowed deductions) for foreign taxes imposed on a dividend if the US Holder has not held the ADSs for at least 16 days in the 31-day period beginning 15 days before the ex dividend date.

US Holders that are accrual basis taxpayers, and who do not otherwise elect, must translate French taxes into US dollars at a rate equal to the average exchange rate for the taxable year in which the taxes accrue, while all US Holders must translate taxable dividend income into US dollars at the spot rate on the date received. This difference in exchange rates may reduce the US dollar value of the credits for French taxes relative to the US Holder's US federal income tax liability attributable to a dividend. However, cash basis and electing accrual basis US Holders may translate French taxes into US dollars using the exchange rate in effect on the day the taxes were paid. Any such election by an accrual basis US Holder will apply for the taxable year in which it is made and all subsequent taxable years, unless revoked with the consent of the IRS.

US Holders should consult their tax advisers concerning the foreign tax credit implications of the payment of French taxes and receiving a dividend from the Company that is eligible for the special reduced rate described above under **Dividends-General**.

***Exchange of ADSs for shares***

No gain or loss will be recognized upon the exchange of ADSs for the US Holder's proportionate interest in our ordinary shares. A US Holder's tax basis in the withdrawn shares will be the same as the US Holder's tax basis in the ADSs surrendered, and the holding period of the shares will include the holding period of the ADSs.

***Sale or other Disposition***

Upon a sale or other disposition of ADSs (other than an exchange of ADSs for ordinary shares), a US Holder generally will recognize capital gain or loss for US federal income tax purposes equal to the difference, if any, between the amount realized on the sale or other disposition and the US Holder's adjusted tax basis in the ADSs. This capital gain or loss will be long-term capital gain or loss if the US Holder's holding period in the ADSs exceeds one year. Any gain or loss will generally be US source.



**Table of Contents*****Passive foreign investment Company status***

A foreign corporation will be a PFIC in any taxable year in which either (i) 75% or more of its gross income consists of certain specified types of passive income or (ii) the average percentage of its assets (by value) that produce or are held for the production of passive income is at least 50%. We do not expect that we will be a PFIC in 2013, but our possible status as a PFIC must be determined annually and therefore we might become a PFIC in future years.

If we were a PFIC in any taxable year during which a US Holder owned ADSs and the US Holder had not made a mark to market or qualified electing fund election, the US Holder would generally be subject to special rules (regardless of whether we continued to be a PFIC) with respect to (i) any excess distribution (generally, any distributions received by the US Holder on ADSs in a taxable year that are greater than 125% of the average annual distributions received by the US Holder in the three preceding taxable years or, if shorter, the US Holder's holding period for the ADSs) and (ii) any gain realized on the sale or other disposition of ADSs. Under these rules (a) the excess distribution or gain would be allocated ratably over the US Holder's holding period, (b) the amount allocated to the current taxable year and any taxable year prior to the first taxable year in which we are a PFIC would be taxed as ordinary income, and (c) the amount allocated to each of the other taxable years would be subject to tax at the highest rate of tax in effect for the applicable class of taxpayer for that year and an interest charge for the deemed deferral benefit would be imposed with respect to the resulting tax attributable to each such other taxable year. If we were a PFIC, a US Holder of ADSs would generally be subject to similar rules with respect to distributions to us by, and dispositions by us of the stock of, any direct or indirect subsidiaries of ours that were also PFICs. A US Holder who owns, or who is treated as owning, PFIC stock during any taxable year in which the Company is classified as a PFIC may be required to file IRS Form 8621. Additionally, dividends paid by us would not be eligible for the special reduced rate of tax described above under United States Taxation Dividends General. US Holders should consult their tax advisers regarding the potential application of the PFIC regime, including the requirement to file Form 8621.

***Backup withholding and information reporting***

Payments of dividends and other proceeds with respect to ADSs by a US paying agent or other US intermediary will be reported to the IRS and to the US Holder as may be required under applicable regulations. Backup withholding may apply to these payments if the US Holder fails to provide an accurate taxpayer identification number or certification of exempt status or fails to report all interest and dividends required to be shown on its US federal income tax returns. Certain US Holders (including, among others, corporations) are not subject to backup withholding. US Holders should consult their tax advisers as to their qualification for exemption from backup withholding and the procedure for obtaining an exemption.

***Foreign financial asset reporting***

US taxpayers that own certain foreign financial assets, including equity of foreign entities, with an aggregate value in excess of \$50,000 at the end of the taxable year or \$75,000 at any time during the taxable year (or, for certain individuals living outside the United States and married individuals filing joint returns, certain higher thresholds, may be required to file an information report with respect to such assets with their tax returns. Our ordinary shares are expected to constitute foreign financial assets subject to these requirements unless the ordinary shares are held in an account at a financial institution (in which case, the account may be reportable if maintained by a foreign financial institution). US Holders should consult their tax advisers regarding the application of the rules relating to foreign asset reporting.

***Dividends and paying agents***

Not applicable.

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### **Statement by experts**

Not applicable.

### **Documents on display**

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the Exchange Act ) applicable to foreign private issuers. In accordance with the Exchange Act, we electronically file or submit reports, including annual reports on Form 20-F and interim reports on Form 6-K, and other information with the Securities and Exchange Commission. You may obtain these reports and other information by sending a written request to CGG, Tour Maine-Montparnasse, 33, avenue du Maine, BP 191, 75755 Paris cedex 15, France, Attention: Investor Relations Officer, Telephone: (33) 1 64 47 45 00.

You can inspect and copy these reports, and other information, without charge, at the Public Reference Room of the Commission located at 100 F Street, N.E., Washington, D.C. 20549. You can also obtain copies of these materials at prescribed rates from the Public Reference Room of the Commission at 450 Fifth Street, N.W., Washington, D.C. 20549 or by calling the Commission at 1-800-SEC-0330. The Commission also maintains a web site at <http://www.sec.gov> that contains reports and other information regarding registrants that file electronically with the Commission.

In addition, you can inspect material filed by CGG at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005, on which American Depositary Shares representing shares of our common stock are listed. As a foreign private issuer, we are not subject to the proxy rules under Section 14 or the short-swing insider profit disclosure rules under Section 16 of the Exchange Act.

On January 12, 2007, following the completion of the merger with CGG, Veritas was delisted from the New York Stock Exchange and filed a Form 15 to terminate its registration and reporting obligations under the Exchange Act.

### **Subsidiary information**

Not applicable.

### **Item 11: QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK**

Because we operate internationally, we are exposed to general risks linked to operating abroad. The table below provides information about our market sensitive financial instruments and constitutes a forward-looking statement . Our major market risk exposures are changing interest rates and currency fluctuations.

#### **Interest rate risk**

Our policy is to manage interest rates through maximization of the proportion of fixed rate debt. As of December 31, 2013, 94% of our debt consisted of fixed-rate bonds, along with some fixed-rate finance leases and fixed-rate medium-term bank credit facilities with variable maturities. This debt is not exposed to interest rate fluctuations. However, drawings under our credit facilities incur interest at variable rates that are reset at each interest period (generally between one and 12 months). As a result, a portion of our interest expenses vary in line with movements in short-term interest rates. We may use interest rate swaps to adjust interest rate exposure when appropriate based upon market conditions.

#### **Foreign Exchange Rate Risk**

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. Our revenues and expenses are mainly denominated in

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US dollars and euros, and to a significantly lesser extent, in Canadian dollars, Brazilian reais, Australian dollars, Norwegian kroner, British pounds and Chinese Yuan. Historically, a significant portion of our revenues that were invoiced in euros related to contracts that were effectively priced in US dollars, as the US dollar often serves as the reference currency when bidding for contracts to provide Geophysical Services.

We attempt to match foreign currency revenues and expenses in order to balance our net position of receivables and payables denominated in foreign currencies. We also seek to improve the balance of our net position of receivables and payables denominated in US dollars by maintaining a portion of our financing in US dollars. In addition, our policy generally is to hedge major foreign currency cash exposures through foreign exchange forward contracts or other foreign exchange currency hedging instruments. These contracts are entered into with major financial institutions, thereby minimizing the risk of credit loss. All instruments are entered into for non-trading purposes. See Item 5: Operating and Financial Review and Prospects Trend Information Currency Fluctuations above.

**Credit risk and counter-party risk**

We seek to minimize our counter-party risk by entering into hedging contracts only with highly rated commercial banks or financial institutions and by distributing the transactions among the selected institutions. Although our credit risk is the replacement cost at the then-estimated fair value of the instrument, we believe that the risk of incurring losses is remote and those losses, if any, would not be material. Our receivables and investments do not represent a significant concentration of credit risk due to the wide variety of customers and markets in which we sell our services and products and our presence in many geographic areas. In 2013, the Group's two most significant customers accounted 5.1% and 3.9% of the Group's consolidated revenues compared with 7.1% and 5.8% in 2012 and 13.0% and 3.0% in 2011.

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The table below presents principal amounts and related weighted average interest rates by year of maturity for our debt obligations and our foreign exchange forward contracts, all of which mature in one year or less and their fair value as of December 31, 2013:

Carrying value	2014	2015	2016	2017	2018	Thereafter	Total	Fair Value
	(in US\$ million)							
<b>Debt</b>								
US dollar	62.6	42.4	260.8	439.5	34.2	632.5	1,471.9	2,031.6
<i>Average fixed rate</i>	5.0%	4.7%	9.8%	7.7%	4.8%	7.3%	7.6%	
US dollar	9.1	7.7	5.4	(0.7)	(0.3)		21.2	21.2
<i>Average variable rate</i>	2.9%	3.2%	3.3%	3.4%	3.4%		3.6%	
Euro	5.8	44.7	482.0	45.3	38.8	466.7	1,083.3	1,168.0
<i>Average fixed rate</i>	4.6%	5.4%	8.2%	5.4%	5.5%	5.4%	6.6%	
Euro	147.0						147.0	147.0
<i>Average variable rate</i>	2.0%						2.0%	
Other currencies								
<i>Average fixed rate</i>								
Other currencies								
<i>Average variable rate</i>								
<b>Foreign Exchange Firm commitments</b>								
Forward sales of US dollars against euros	5.0							0.4
US dollars average rate/	1.3711							
Forward sales of US dollars against British pounds	11.4							0.4
US dollars average rate/GBP	1.5919							
Forward sales of US dollars against Ren-min-bi Yuan	5.4							0.0
RMB average rate/US\$	0.1646							
Forward sales of US dollars against Australian Dollar	1.8							0.0
AUD average rate/US\$	0.9085							
Forward sales of US dollars against Singapore dollar	7.9							0.0
SGD average rate/US\$	0.7936							

**Table of Contents****Item 12: DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES****American depositary shares**

Our ADSs are listed on the New York Stock Exchange under the symbol CGG. The Bank of New York Mellon is the depository (the Depository) issuing ADSs pursuant to an amended and restated deposit agreement dated January 11, 2007 among our company, the Depository and the holders from time to time of ADSs (the Deposit Agreement). Each ADS represents the right to receive one share. The table below sets forth the fees payable, either directly or indirectly, by a holder of ADSs as of the date of this annual report.

Category	Depository Actions	Associated Fee/By Whom Paid
(a) Depositing or substituting the underlying shares	Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property	\$5.00 (or less) per 100 ADSs (or portion thereof) charged to person depositing the shares
(b) Receiving or distributing dividends	Any cash distribution to ADS registered holders	\$0.02 (or less) per ADS
(c) Selling or exercising rights	Distribution of securities distributed to holders of deposited securities which are distributed by the depository to ADS registered holders	A fee equivalent to the fee that would be payable if securities distributed had been shares and the shares had been deposited for issuance of ADSs
(d) Withdrawing an underlying security	Cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates	\$5.00 (or less) per 100 ADSs (or portion thereof) charged to person withdrawing the shares
(e) Transferring, splitting or grouping receipts	Transfers, combining or grouping of depository receipts	Not applicable
(f) General depository services, particularly those charged on an annual basis	Other services performed by the Depository in administering the ADSs	Not applicable
(g) Expenses of the Depository	Expenses incurred on behalf of holders in connection with: <ul style="list-style-type: none"> <li>taxes and other governmental charges the Depository or the custodian has to pay on any ADS or share underlying and ADS, for example, stock transfer taxes, stamp duty or withholding taxes;</li> <li>cable, telex and facsimile transmission (when expressly provided in the Deposit Agreement);</li> <li>registration or transfer fees for the registration of shares or other deposited securities on the share register and applicable to transfers of shares or other deposited securities to or from the name of the custodian; and</li> </ul>	

expenses of the Depositary in connection with the conversion of foreign currency into US dollars.

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The Depositary may remit to us all or a portion of the Depositary fees charged for the reimbursement of certain of the expenses we incur in respect of the ADS program established pursuant to the Deposit Agreement upon such terms and conditions as we may agree from time to time.

However, in the year ended December 31, 2013, the Depositary did not reimburse us for any fees or expenses.

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**PART II**

**Item 13: DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

Not applicable.

**Item 14: MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITYHOLDERS AND USE OF PROCEEDS**

Not applicable.

**Item 15: CONTROLS AND PROCEDURES**

(a) *Disclosure controls and procedures.* As of the end of the period covered by this report, we carried out an evaluation of the effectiveness of our disclosure controls and procedures (as defined in 17 CFR 240.13a-15(e) and 240.15d-15(e)), under the supervision of our management, including our Chief Executive Officer and our Chief Financial Officer. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that such controls and procedures are effective to ensure that information required to be disclosed in reports filed with or submitted to the SEC under the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the Exchange Act and its rules and forms.

There has been no change in our internal control over financial reporting during the period covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Pursuant to section L.225-37 of the French Commercial Code, as amended by a French financial law (the *Loi de Sécurité Financière*) enacted on August 1, 2003, our Chairman of the Board must deliver a report to the annual General Meeting of our shareholders on the Board of Directors composition, preparation and organization of the Board of Directors work, internal control and risk management. This report for 2013 informed our shareholders of the internal control procedures that we have put in place in order to circumvent identified risks resulting from our activities and the risks of errors or fraud, particularly in accounting and finance. It describes the existing control environment, i.e. our values with respect to integrity and ethics, the organization of our corporate governance committees, the functions of our disclosure committee and the way we delegate powers and determine areas of responsibility. It also describes the procedures put in place to identify and assess our major risks, whether internal or external. It gives details on our control procedures, particularly those applied to financial information, so as to ensure reliability of financial reporting. A self-assessment process of internal control procedures currently existing within our Group has been implemented.

(b) *Management annual report on internal control over financial reporting.* We are responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities and Exchange Act of 1934) for CGG.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements, and can only provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

We assessed the effectiveness of our internal control over financial reporting as of December 31, 2013, and concluded that our internal control over financial reporting is effective. In making this assessment, we used the criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our assessment under these criteria, we concluded that,

as



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of December 31, 2013, our internal control over financial reporting was effective to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and with IFRS as adopted by the European Union as of December 31, 2013.

The effectiveness of internal control over financial reporting has been audited by Ernst & Young et Autres, our independent registered public accounting firm, as stated in their report, which is included herein.

*(c) Attestation Report of independent registered public accounting firms.*

**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of CGG

We have audited CGG's internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). CGG's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management annual report on internal control over financial reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, CGG maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of CGG as of December 31, 2013, and the related consolidated

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statements of operations, comprehensive income (loss), changes in equity and cash flows for the year ended December 31, 2013 of CGG and our report dated April 10, 2014 expressed an unqualified opinion thereon.

Paris-La Défense, France

April 10, 2014,

ERNST & YOUNG et Autres

Pierre Jouanne

Laurent Vitse

(d) *Changes in Internal Control Over Financial Reporting.*

Not Applicable

**Item 16A: AUDIT COMMITTEE FINANCIAL EXPERT**

Pursuant to Section 407 of the Sarbanes Oxley Act of 2002, Mrs. Lombard was appointed Financial Expert of the Audit Committee by a Board resolution dated May 3, 2013. Mrs. Lombard is independent, as that term is defined by the listing standards of the New York Stock Exchange.

**Item 16B: CODE OF ETHICS**

The Board of Directors has adopted a Code of Ethics that applies to our Chief Executive Officer, our Chief Financial Officer, other senior financial officers (including our principal accounting officer), the members of the Corporate Committee and the Disclosure Committee to promote honest and ethical conduct, full, fair, accurate, timely and understandable disclosure in periodic reports required to be filed by us and compliance with applicable governmental rules and regulations. A copy of this Code of Ethics is filed as an exhibit to this annual report.

**Item 16C: PRINCIPAL ACCOUNTANT FEES AND SERVICES**

	December 31,			
	2013		2012	
	EY	Mazars	EY	Mazars
	(in thousands of US Dollars)			
Audit Fees <sup>(a)</sup>	5,190	2,351	4,123	2,329
Audit-Related Fees <sup>(b)</sup>	305	139	1,168	749
Tax Fees <sup>(c)</sup>	37	36	70	29
All Other Fees <sup>(d)</sup>				
<b>Total</b>	<b>5,532</b>	<b>2,526</b>	<b>5,361</b>	<b>3,107</b>

Notes:

(a) *Audit fees are the aggregate fees billed by our independent auditors for the audit of the individual and consolidated annual and semi-annual financial statements and the provision of services that are normally provided by our independent auditors in connection with statutory and regulatory filings or engagements.*

(b)

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*Audit-related fees are the aggregate fees billed by our independent auditors for services that are reasonably related to the performance of the audit or review of our financial statements and are not reported under "audit fees". They include consultations relating to accounting principles and internal controls.*

- (c) Tax fees are the aggregate fees billed by our independent auditors for services rendered by our auditors for tax compliance, tax advice, and tax planning. They include assistance when dealing with local authorities, advice regarding tax audit and litigation, expatriate taxation and tax advice relating to mergers and acquisitions.*
- (d) All other fees are the aggregate fees billed by our independent auditors other than the services reported in notes (a) through (c) of this table. They include training services as well as general and specific advice.*

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In December 2003, the Board of Directors and the Audit Committee adopted an audit and non-audit services pre-approval policy. This policy requires the Audit Committee to pre-approve the audit and non-audit services performed by the independent auditors in order to assure that they do not impair the auditors' independence from us.

Pursuant to this policy, a list of proposed services is pre-approved, on an annual basis, without consideration of specific case-by-case services by the Audit Committee. Unless a type of service has received such general pre-approval, it will require specific pre-approval by the Audit Committee or by any person to whom the Audit Committee has delegated pre-approval authority. In addition, any proposed services exceeding pre-approved cost levels or budgeted amounts will also require specific pre-approval by the Audit Committee. The services list and the cost levels are reviewed annually by the Audit Committee.

The annual audit services engagement terms and fees as defined in note (a) of table above are subject to the specific pre-approval of the Audit Committee.

**Item 16D: EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES**

Not applicable.

**Item 16E: PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS**

Not applicable.

**Item 16F: CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT**

In February 2013, the Audit Committee recommended to streamline the audit and to retain Ernst & Young et Autres as sole certifying registered accountant, while recommending to the Board to have Ernst & Young et Autres and Mazars re-appointed by the 2013 Shareholders' general meeting as joint statutory auditors for domestic reporting purposes of the Group as a public company in France. This recommendation was endorsed and implemented by the Board of Directors on February 27, 2013.

**Item 16G: CORPORATE GOVERNANCE**

The corporate governance rules of the New York Stock Exchange differ from the regulations and recommendations applicable in France, especially those governing the definition of director independence and the role and operation of the Board's committees. As a non-US listed company, we are exempted from many of these corporate governance rules, which are applicable to US listed companies. For example, notwithstanding our conclusions as to independence under the AFEP-MEDEF Code, our Board has not formally determined which of our Directors meet NYSE independence standards, and non-management Directors do not meet regularly. The Board's internal charter does not address committee purposes and responsibilities in the manner specified by the NYSE rules applicable to nominating, compensation and audit committees, and our Appointment-Remuneration Committee has not been given independent authority and funding to hire compensation advisors. However, our Audit Committee members meet the independence test for Audit Committee members established by the SEC, and we believe that they also meet the definition of independence under the NYSE rules.

**Item 16H: MINE SAFETY DISCLOSURE**

Not applicable.

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**PART III**

**Item 17: FINANCIAL STATEMENTS**

Not applicable

**Item 18: FINANCIAL STATEMENTS**

The following audited financial statements of the CGG Group and related schedules, together with the reports of Ernst & Young et Autres and Ernst & Young et Autres and Mazars, are filed as part of this annual report:

	<b>Page</b>
<u>Report of Independent Auditors</u>	F-1
Consolidated Financial Statements:	
<u>Consolidated Balance Sheets as at December 31, 2013, 2012 and 2011</u>	F-3
<u>Consolidated Statements of Operations for the years ended December 31, 2013, 2012 and 2011</u>	F-4
<u>Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2013, 2012 and 2011</u>	F-5
<u>Consolidated Statements of Changes in Equity for the years ended December 31, 2013, 2012 and 2011</u>	F-6
<u>Consolidated Statements of Cash Flows for the years ended December 31, 2013, 2012 and 2011</u>	F-7
<u>Notes to the Consolidated Financial Statements</u>	F-8

**Table of Contents****Item 19: EXHIBITS**

<b>Exhibit No</b>	<b>Exhibit</b>
1.1*	English translation of our Articles of Association (statuts).
4.1	Mixed Capital Company Contract dated November 26, 2003 by and among Sercel SA, the Committee of the Hebei JunFeng Prospecting Equipment Company, the Dongfang Geological Prospecting Limited Liability Company, and the Xian General Factory for Oil Prospecting Equipment (Exhibit 10.1 to the Report on Form 6-K, dated May 13, 2004, is incorporated herein by reference).
4.2	Agreement between the Shareholders of CGG Ardiseis, dated June 23, 2006, between Industrialization & Energy Services Company (TAQA) and us (we have requested that the Commission grant confidential treatment for certain portions of this document) (Exhibit 4.22 to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2006, dated May 7, 2007, is incorporated herein by reference).
4.3	Sale and Purchase Agreement <sup>(1)</sup> relating to the Geoscience Business between Fugro N.V. (as the Seller) and CGGVeritas (as the Purchaser), dated 23 September 2012 (Exhibit 4.3 to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2012, dated April 25, 2013, is incorporated herein by reference).
4.4	Amendment dated 27 January 2013 <sup>(1)</sup> to the Sale and Purchase Agreement relating to the Geoscience Business between Fugro N.V. (as the Seller) and CGGVeritas (as the Purchaser) (Exhibit 4.4 to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2012, dated April 25, 2013, is incorporated herein by reference).
4.5	Joint Venture Agreement <sup>(1)</sup> relating to Seabed Geosolutions B.V. between Fugro Consultants International N.V. and CGGVeritas S.A. dated 27 January 2013 (Exhibit 4.5 to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2012, dated April 25, 2013, is incorporated herein by reference).
4.6	Amendment dated February 16, 2013 <sup>(1)</sup> to the Joint-Venture Agreement relating to Seabed Geosolutions B.V. between Fugro Consultants International N.V. and CGGVeritas S.A. (Exhibit 4.6 to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2012, dated April 25, 2013, is incorporated herein by reference).
8*	Our subsidiaries
11*	Code of Ethics.
12.1*	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes Oxley Act of 2002.
12.2*	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes Oxley Act of 2002.
13.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes Oxley Act of 2002 (10 U.S.C. § 1350).
13.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes Oxley Act of 2002 (10 U.S.C. § 1350).
15.1*	Consent of Ernst & Young et Autres.
15.2*	Letter dated April 10, 2014 from Mazars.

\* Filed herewith.

<sup>(1)</sup> Pursuant to the rules of the SEC, the schedules and similar attachments to the agreement have not been filed herewith. The Company agrees to furnish supplementally a copy of any omitted schedule to the SEC upon request.

The Company and its consolidated subsidiaries are party to several debt instruments under which the total amount of securities authorized does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis. Pursuant to paragraph 2(b)(i) of the instructions to the exhibits to Form 20-F, the Company agrees to furnish a copy of such instruments to the SEC upon request.

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**SIGNATURES**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

CGG

(Registrant)

/s/ JEAN-GEORGES MALCOR  
Jean-Georges Malcor

Chief Executive Officer

Date: April 10, 2014

/s/ STEPHANE-PAUL FRYDMAN  
Stéphane-Paul Frydman

Chief Financial Officer

Corporate Officer

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**CGG**

**ERNST & YOUNG**

1-2 place des Saisons, Paris La Défense 1  
92400 Courbevoie

**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of CGG:

We have audited the accompanying consolidated balance sheet of CGG and subsidiaries (the Company) as of December 31, 2013 and the related consolidated statements of operations, comprehensive income (loss), changes in equity and cash flows for the year ended December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2013, and the consolidated results of its operations and its cash flows for the year ended December 31, 2013, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria) and our report dated April 10, 2014 expressed an unqualified opinion thereon.

Paris-La Défense, France

April 10, 2014.

ERNST & YOUNG et Autres

Pierre Jouanne

Laurent Vitse

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**Report of Independent Registered Public Accounting Firms**

To the Board of Directors and Shareholders of CGG:

We have audited the accompanying consolidated balance sheets of CGG and subsidiaries (the Company) as of December 31, 2012 and 2011, and the related consolidated statements of operations, comprehensive income (loss), changes in equity and cash flows for each of the two years in the period ended December 31, 2012. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2012 and 2011 and the consolidated results of its operations and its cash flows for each of the two years in the period ended December 31, 2012, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

As discussed in Note 1 to the consolidated financial statements, the Company changed its presentation currency from the euro to the U.S. dollar, effective January 1, 2012.

Courbevoie and Paris-La Défense, France

April 25, 2013.

MAZARS

ERNST & YOUNG et Autres

Jean-Marc Deslandes

Pierre Jouanne

Laurent Vitse

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**Table of Contents****CGG****CONSOLIDATED BALANCE SHEETS**

		December 31,		
	Notes	2013	2012 (restated) <sup>(1)</sup>	2011 (restated) <sup>(1)</sup>
(Amounts in millions of US dollars)				
<b>ASSETS</b>				
Cash and cash equivalents	28	530.0	1,520.2	531.4
Trade accounts and notes receivable, net	3	987.4	888.7	876.0
Inventories and work-in-progress, net	4	505.2	419.2	361.5
Income tax assets		118.1	111.7	119.4
Other current assets, net	5	175.6	139.6	157.0
Assets held for sale, net	5	37.7	393.9	64.5
<b>Total current assets</b>		<b>2,354.0</b>	<b>3,473.3</b>	<b>2,109.8</b>
Deferred tax assets	24	222.6	171.4	188.8
Investments and other financial assets, net	7	47.8	53.7	24.7
Investments in companies under equity method	8	325.8	124.5	131.7
Property, plant and equipment, net	9	1,557.8	1,159.5	1,183.2
Intangible assets, net	10	1,271.6	934.9	865.1
Goodwill, net	11	2,483.2	2,415.5	2,688.2
<b>Total non-current assets</b>		<b>5,908.8</b>	<b>4,859.5</b>	<b>5,081.7</b>
<b>TOTAL ASSETS</b>		<b>8,262.8</b>	<b>8,332.8</b>	<b>7,191.5</b>
<b>LIABILITIES AND EQUITY</b>				
Bank overdrafts	13	4.5	4.2	6.0
Current portion of financial debt	13	247.0	47.8	64.5
Trade accounts and notes payables		557.6	505.5	386.4
Accrued payroll costs		251.1	209.9	185.7
Income taxes payable		73.9	97.0	159.7
Advance billings to customers		52.4	36.0	51.0
Provisions – current portion	16	73.1	21.0	34.6
Other current liabilities	12	283.9	300.2	272.3
<b>Total current liabilities</b>		<b>1,543.5</b>	<b>1,221.6</b>	<b>1,160.2</b>
Deferred tax liabilities	24	148.9	106.0	104.4
Provisions – non-current portion	16	142.5	123.5	123.8
Financial debt	13	2,496.1	2,253.2	1,871.6
Other non-current liabilities	17	41.7	46.6	49.8
<b>Total non-current liabilities</b>		<b>2,829.2</b>	<b>2,529.3</b>	<b>2,149.6</b>
Common stock: 301,784,014 shares authorized and 176,890,866 shares with a 0.40 nominal value issued and outstanding at December 31, 2013	15	92.7	92.4	79.8
Additional paid-in capital		3,180.4	3,179.1	2,669.3
Retained earnings		1,273.9	1,190.6	1,147.5
Other Reserves		(46.1)	(27.8)	(17.0)

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Treasury shares	(20.6)	(20.6)	(20.6)
Net income (loss) for the period attributable to owners of CGG SA	(698.8)	75.2	(27.1)
Cumulative income and expense recognized directly in equity	(7.6)	(7.6)	(11.5)
Cumulative translation adjustment	26.0	1.9	(25.8)
<b>Equity attributable to owners of CGG SA</b>	<b>3,799.9</b>	<b>4,483.2</b>	<b>3,794.6</b>
Non-controlling interest	90.2	98.7	87.1
<b>Total equity</b>	<b>3,890.1</b>	<b>4,581.9</b>	<b>3,881.7</b>
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>8,262.8</b>	<b>8,332.8</b>	<b>7,191.5</b>

<sup>(1)</sup> Restatement related to IAS19 revised see note 1 Change in Accounting Policies

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

**Table of Contents****CGG****CONSOLIDATED STATEMENTS OF OPERATIONS**

	Notes	2013	December 31, 2012 (restated) <sup>(4)</sup>	2011 (restated) <sup>(4)</sup>
(In millions of US dollars, except per share data)				
Operating revenues	19	3,765.8	3,410.5	3,180.9
Other income from ordinary activities	19	2.1	3.6	3.3
<b>Total income from ordinary activities</b>		<b>3,767.9</b>	<b>3,414.1</b>	<b>3,184.2</b>
Cost of operations		(2,977.2)	(2,685.4)	(2,649.4)
<b>Gross profit</b>		<b>790.7</b>	<b>728.7</b>	<b>534.8</b>
Research and development expenses net	20	(105.9)	(92.8)	(77.0)
Marketing and selling expenses		(118.6)	(96.0)	(83.1)
General and administrative expenses		(215.9)	(182.6)	(201.8)
Other revenues (expenses) net	21	(745.2)	(26.7)	34.3
<b>Operating income</b>	19	<b>(394.9)</b>	<b>330.6</b>	<b>207.2</b>
Expenses related to financial debt		(193.3)	(159.0)	(177.2)
Income provided by cash and cash equivalents		1.6	2.3	2.7
<b>Cost of financial debt, net</b>	22	<b>(191.7)</b>	<b>(156.7)</b>	<b>(174.5)</b>
Other financial income (loss)	23	(22.3)	(19.7)	0.8
<b>Income (loss) of consolidated companies before income taxes</b>		<b>(608.9)</b>	<b>154.2</b>	<b>33.5</b>
Deferred taxes on currency translation		9.7		(4.6)
Other income taxes		(92.6)	(99.2)	(58.5)
<b>Total income taxes</b>	24	<b>(82.9)</b>	<b>(99.2)</b>	<b>(63.1)</b>
<b>Net income (loss) from consolidated companies</b>		<b>(691.8)</b>	<b>55.0</b>	<b>(29.6)</b>
Share of income (loss) in companies accounted for under equity method		0.6	37.4	16.4
<b>Net income (loss)</b>		<b>(691.2)</b>	<b>92.4</b>	<b>(13.2)</b>
Attributable to:				
Owners of CGG SA	\$	(698.8)	75.2	(27.1)
Owners of CGG SA <sup>(5)</sup>		(527.2)	58.3	(19.3)
Non-controlling interests	\$	7.6	17.2	13.9
Weighted average number of shares outstanding <sup>(3)</sup>	29	176,734,989	162,077,608	158,571,323
Dilutive potential shares from stock options	29	(1)	827,902	(1)
Dilutive potential shares from performance share plan	29	(1)	503,932	(1)
Dilutive potential shares from convertible bonds	29	(1)	(2)	(1)
Dilutive weighted average number of shares outstanding adjusted when dilutive		176,734,989	163,409,442	158,571,323
<b>Net income (loss) per share<sup>(3)</sup></b>				
Basic	\$	(3.95)	0.46	(0.17)
Basic <sup>(6)</sup>		(2.98)	0.36	(0.12)
Diluted	\$	(3.95)	0.46	(0.17)
Diluted <sup>(4)</sup>		(2.98)	0.36	(0.12)

<sup>(1)</sup> As our net result was a loss, stock options and performance shares plans had an anti-dilutive effect; as a consequence, potential shares linked to those instruments were not taken into account in the dilutive weighted average number of shares or in the calculation of diluted loss per share.

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- (2) *Convertible bonds had an accretive effect; as a consequence, potential shares linked to those instruments were not taken into account in the dilutive weighted average number of shares or in the calculation of diluted income per share.*
- (3) *As a result of the 2012 CGG SA capital increase via an offering of preferential subscription rights to existing shareholders, the calculation of basic and diluted earnings per shares for 2012 and 2011 has been adjusted retrospectively. Number of ordinary shares outstanding has been adjusted to reflect the proportionate change in the number of shares.*
- (4) *Restatement related to IAS19 revised see note 1 Change in Accounting Policies*
- (5) *Converted at the average exchange rate of US\$1.3254, US\$1.29 and US\$1.4025 per for 2013, 2012 and 2011 respectively.*

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

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**Table of Contents****CGG****CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**

(Amounts in millions of US dollars)	Twelve months ended December 31,		
	2013	2012 (restated) <sup>(a)</sup>	2011 (restated) <sup>(a)</sup>
<b>Net income (loss) from statements of operations</b>	<b>(691.2)</b>	<b>92.4</b>	<b>(13.2)</b>
<b>Other comprehensive income to be reclassified in profit (loss) in subsequent period:</b>			
Gain (loss) on cash flow hedges		3.7	(4.4)
Income taxes		(1.3)	1.6
<b>Net gain (loss) on cash flow hedges</b>		<b>2.4</b>	<b>(2.8)</b>
<b>Exchange differences on translation of foreign operations</b>	<b>25.2</b>	<b>27.7</b>	<b>(30.6)</b>
<b>Net other comprehensive income to be reclassified in profit (loss) in subsequent period (1)</b>	<b>25.2</b>	<b>30.1</b>	<b>(33.4)</b>
<b>Other comprehensive income not to be classified in profit (loss) in subsequent period:</b>			
Gain (loss) on actuarial changes on pension plan	(3.8)	(18.0)	(1.7)
Income taxes	1.3	6.2	0.6
<b>Net gain (loss) on actuarial changes on pension plan</b>	<b>(2.5)</b>	<b>(11.8)</b>	<b>(1.1)</b>
<b>Net other comprehensive income not to be reclassified in profit (loss) in subsequent period (2)</b>	<b>(2.5)</b>	<b>(11.8)</b>	<b>(1.1)</b>
<b>Other comprehensive income (loss) for the period, net of taxes, in companies accounted for under the equity method (3)</b>		<b>1.5</b>	<b>(4.6)</b>
<b>Total other comprehensive income (loss) for the period, net of taxes (1) + (2) + (3)</b>	<b>22.7</b>	<b>19.8</b>	<b>(39.1)</b>
<b>Total comprehensive income (loss) for the period</b>	<b>(668.5)</b>	<b>112.2</b>	<b>(52.3)</b>
<i>Attributable to:</i>			
<i>Owners of CGG</i>	<i>(677.6)</i>	<i>95.0</i>	<i>(68.4)</i>
<i>Non-controlling interests</i>	<i>9.1</i>	<i>17.2</i>	<i>16.1</i>

<sup>(a)</sup> Restatement related to IAS19 revised see note 1 Change in Accounting Policies

Actuarial changes on pension plan are not classified to profit or loss in subsequent periods. Other components recognized in other comprehensive income are reclassified to profit or loss under certain conditions.

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

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**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**

	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	Equity attributable to owners of CGG SA	Non- controlling interests	Total equity
(Amounts in millions of US dollars, except share data)											
<b>Balance at January 1, 2011 (restated)<sup>(a)</sup></b>	151,506,109	79.6	2,666.3	1,039.0	(21.4)	(20.6)	(4.7)	7.6	3,745.8	77.1	3,822.9
Capital increase	355,823	0.2	3.0						3.2		3.2
Dividends										(4.0)	(4.0)
Net income				(27.1)					(27.1)	13.9	(13.2)
Cost of share-based payment				15.7					15.7		15.7
<i>Net gain (loss) on actuarial changes on pension plan<sup>(1)</sup></i>				(1.1)					(1.1)		(1.1)
<i>Net gain (loss) on cash flow hedges<sup>(2)</sup></i>							(7.4)		(7.4)		(7.4)
<i>Exchange differences on foreign currency translation<sup>(3)</sup></i>							0.6	(33.4)	(32.8)	2.2	(30.6)
Other comprehensive income <sup>(1)+(2)+(3)</sup>				(1.1)			(6.8)	(33.4)	(41.3)	2.2	(39.1)
Issuance of convertible bonds, net of deferred taxes				81.9					81.9		81.9
Changes in consolidation scope and other				12.0	4.4				16.4	(2.1)	14.3
<b>Balance at December 31, 2011 (restated)<sup>(a)</sup></b>	151,861,932	79.8	2,669.3	1,120.4	(17.0)	(20.6)	(11.5)	(25.8)	3,794.6	87.1	3,881.7

(a) Restatement related to IAS19 revised see note 1 Change in Accounting Policies

	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	Equity attributable to owners of CGG SA	Non- controlling interests	Total equity
(Amounts in millions of US dollars, except share data)											
<b>Balance at January 1, 2012 (restated)<sup>(a)</sup></b>	151,861,932	79.8	2,669.3	1,120.4	(17.0)	(20.6)	(11.5)	(25.8)	3,794.6	87.1	3,881.7
Capital increase	24,530,293	12.6	509.8						522.4		522.4
Dividends										(5.6)	(5.6)
Net income				75.2					75.2	17.2	92.4
Cost of share-based payment				21.5					21.5		21.5
				(11.8)					(11.8)		(11.8)

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<i>Net gain (loss) on actuarial changes on pension plan<sup>(1)</sup></i>											
<i>Net gain (loss) on cash flow hedges<sup>(2)</sup></i>							3.9		3.9		<b>3.9</b>
<i>Exchange differences on foreign currency translation<sup>(3)</sup></i>								27.7	27.7		<b>27.7</b>
Other comprehensive income <sup>(1)+(2)+(3)</sup>				(11.8)			3.9	27.7	19.8		<b>19.8</b>
Issuance of convertible bonds, net of deferred taxes				64.1					64.1		<b>64.1</b>
Changes in consolidation scope and other				(3.6)	(10.8)				(14.4)		<b>(14.4)</b>
<b>Balance at December 31, 2012 (restated)<sup>(a)</sup></b>	<b>176,392,225</b>	<b>92.4</b>	<b>3,179.1</b>	<b>1,265.8</b>	<b>(27.8)</b>	<b>(20.6)</b>	<b>(7.6)</b>	<b>1.9</b>	<b>4,483.2</b>	<b>98.7</b>	<b>4,581.9</b>

(a) Restatement related to IAS19 revised see note 1 Change in Accounting Policies

	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	Equity attributable to owners of CGG SA	Non-controlling interests	Total equity
<b>Balance at January 1, 2013 (restated)<sup>(a)</sup></b>	<b>176,392,225</b>	<b>92.4</b>	<b>3,179.1</b>	<b>1,265.8</b>	<b>(27.8)</b>	<b>(20.6)</b>	<b>(7.6)</b>	<b>1.9</b>	<b>4,483.2</b>	<b>98.7</b>	<b>4,581.9</b>
Capital increase	498,641	0.3	1.3	(0.2)					1.4		<b>1.4</b>
Dividends									0.0	(7.5)	<b>(7.5)</b>
Net income				(698.8)					(698.8)	7.6	<b>(691.2)</b>
Cost of share-based payment				11.9					11.9		<b>11.9</b>
<i>Net gain (loss) on actuarial changes on pension plan<sup>(1)</sup></i>				(2.5)					(2.5)		<b>(2.5)</b>
<i>Net gain (loss) on cash flow hedges<sup>(2)</sup></i>											
<i>Exchange differences on foreign currency translation<sup>(3)</sup></i>							(0.4)	24.1	23.7	1.5	<b>25.2</b>
Other comprehensive income <sup>(1)+(2)+(3)</sup>				(2.5)			(0.4)	24.1	21.2	1.5	<b>22.7</b>
Changes in consolidation scope and other				(1.1)	(18.3)		0.4		(19.0)	(10.1)	<b>(29.1)</b>
<b>Balance at December 31, 2013</b>	<b>176,890,866</b>	<b>92.7</b>	<b>3,180.4</b>	<b>575.1</b>	<b>(46.1)</b>	<b>(20.6)</b>	<b>(7.6)</b>	<b>26.0</b>	<b>3,799.9</b>	<b>90.2</b>	<b>3,890.1</b>

(a) Restatement related to IAS19 revised see note 1 Change in Accounting Policies



**Table of Contents****CGG****CONSOLIDATED STATEMENTS OF CASH FLOWS**

		Year		
	Notes	2013	2012 (restated) <sup>(1)</sup>	2011 (restated) <sup>(1)</sup>
((In millions of US dollars))				
<b>OPERATING</b>				
Net income (loss)		(691.2)	92.4	(13.2)
Depreciation and amortization	28	1,213.0	368.0	343.7
Multi-client surveys depreciation and amortization	10, 28	398.7	340.9	285.3
Depreciation and amortization capitalized in multi-client surveys	10	(92.9)	(54.2)	(25.8)
Variance on provisions		39.6	(20.1)	(22.6)
Stock based compensation expenses		15.8	20.9	15.7
Net gain (loss) on disposal of fixed assets	28	(90.3)	(9.4)	(23.6)
Equity income (loss) of investees		(0.6)	(37.4)	(16.4)
Dividends received from affiliates		10.0	48.2	6.9
Other non-cash items		4.5	(0.5)	(22.2)
<b>Net cash including net cost of financial debt and income tax</b>		<b>806.6</b>	<b>748.8</b>	<b>527.8</b>
Less net cost of financial debt		191.7	156.7	174.5
Less income tax expense		82.9	99.2	63.1
<b>Net cash excluding net cost of financial debt and income tax</b>		<b>1,081.2</b>	<b>1,004.7</b>	<b>765.4</b>
Income tax paid		(117.3)	(145.1)	(92.3)
<b>Net cash before changes in working capital</b>		<b>963.9</b>	<b>859.6</b>	<b>673.1</b>
change in trade accounts and notes receivables		46.5	(49.3)	60.3
change in inventories and work-in-progress		(46.8)	(46.7)	(14.4)
change in other current assets		25.5	7.1	40.2
change in trade accounts and notes payable		(76.9)	113.8	(13.4)
change in other current liabilities		0.5	37.8	54.3
Impact of changes in exchange rate on financial items	28	(5.0)	(1.4)	(10.2)
<b>Net cash provided by operating activities</b>		<b>907.7</b>	<b>920.9</b>	<b>789.9</b>
<b>INVESTING</b>				
Total capital expenditures (including variation of fixed assets suppliers, excluding multi-client surveys)	9	(347.2)	(368.8)	(365.6)
Investments in multi-client surveys, net cash	10	(479.4)	(363.8)	(203.2)
Proceeds from disposals of tangible & intangible assets		6.1	6.2	21.3
Total net proceeds from financial assets	28	33.7	35.4	13.0
Acquisition of investments, net of cash & cash equivalents acquired	28	(937.9)	(52.5)	(10.7)
Variation in loans granted		3.9	1.7	4.6
Variation in subsidies for capital expenditures		(1.5)	(1.2)	
Variation in other non-current financial assets		2.8	(1.6)	2.1
<b>Net cash used in investing activities</b>		<b>(1,719.5)</b>	<b>(744.6)</b>	<b>(538.5)</b>
<b>FINANCING</b>				
Repayment of long-term debt		(481.3)	(94.8)	(1,186.9)
Total issuance of long-term debt		444.4	537.4	1,190.7
Lease repayments		(16.8)	(30.1)	(38.0)
Change in short-term loans		(0.4)	(1.7)	
Financial expenses paid	28	(136.9)	(125.2)	(126.9)
<i>Net proceeds from capital increase:</i>				
from shareholders		1.4	514.8	3.2
from non-controlling interests of integrated companies				
<i>Dividends paid and share capital reimbursements:</i>				
to shareholders				
to non-controlling interests of integrated companies		(7.5)	(5.6)	(4.0)

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<b>Net cash provided by (used in) financing activities</b>		<b>(197.1)</b>	<b>794.8</b>	<b>(161.9)</b>
Effect of exchange rates on cash		21.4	17.7	(6.9)
Impact of changes in consolidation scope		(2.7)		
<b>Net increase (decrease) in cash and cash equivalents</b>		<b>(990.2)</b>	<b>988.8</b>	<b>82.6</b>
Cash and cash equivalents at beginning of year	28	1,520.2	531.4	448.8
<b>Cash and cash equivalents at end of period</b>	<b>28</b>	<b>530.0</b>	<b>1,520.2</b>	<b>531.4</b>

<sup>(1)</sup> Restatement related to IAS19 revised see note 1 Change in Accounting Policies

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

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

CGG, SA ( the Company ) and its subsidiaries (together, the Group ) is a fully integrated Geoscience company providing leading geological, geophysical and reservoir capabilities to its broad base of customers primarily from the global oil and gas industry. It is also a global manufacturer of geophysical equipment.

Given that the Company is listed on a European stock exchange and pursuant to European Regulation n° 1606/2002 dated July 19, 2002, the accompanying consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ( IFRS ) and its interpretations as issued by the International Accounting Standards Board (IASB) and as adopted by the European Union at December 31, 2013.

The consolidated financial statements were authorized for issue by the Board of Directors on February 26, 2014 and are subject to the approval of our General Meeting expected to be held on June 4, 2014.

**Critical accounting policies**

Our accounting policies, which we have applied consistently, are described below. However, the accounting policies related to the accounts impacted by the judgments and estimates described below 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.

Those accounting policies are consistent with those used to prepare our consolidated financial statements as at December 31, 2012, except for the first adoption of the following Standards and Interpretations:

Amendment to IAS1 Presentation of financial statements

Amendment to IAS19 Employee benefits

IFRS10 Consolidated Financial Statements

IFRS11 Joint arrangements

IFRS12 Disclosures of Interests in other entities

Amendment to IAS27 Separate Financial Statements

Amendment to IAS28 Investments in associates and joint ventures

IFRS13 Fair value measurement

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### Annual improvements (2009-2011)

The adoption of these Standards and Interpretations had no significant impact on the Group's financial statements, except for the application of IAS 19 Revised. The adoption of IFRS10 and IFRS11 had no impact on the consolidation method applied to CGG SA subsidiaries.

The Group decided not to early adopt those Standards, Amendments and Interpretations that the European Union adopted but that were not effective as of December 31, 2013, namely:

Amendments to IAS 36 Recoverable Amount Disclosures for Non-Financial Assets

Amendments to IAS39 and IFRS9 Novation of Derivatives and Continuation of Hedge Accounting

Amendment to IFRS7 and IAS32 Offsetting financial assets and financial liabilities

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

IFRS9 Financial Instruments classification and valuation of financial assets

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IFRIC 21 Interpretation Levies

Amendments to IAS 19 Employee benefits

Annual improvements (2010-2012)

Annual improvements (2011-2013)

We are currently reviewing these Standards and Interpretations to measure their potential impact on our consolidated financial statements.

In the financial statements presented, the application of Standards and Interpretations adopted by the European Union does not differ from the application of Standards and Interpretations as published by the IASB.

**Application of IAS19 revised Employee benefits**

Starting January 1, 2013, we have applied IAS19 revised Employee benefits. As the application of this new standard is a change of accounting policy, all comparative financial information has been restated to present comparative amounts for each period presented as if the new accounting policy had always been applied. As a result:

- Unvested past services costs are no longer recognized as an expense on a straight-line basis over the average period until the benefits become vested, but are recognized immediately if the benefits have vested immediately following the introduction of, or changes to, a pension plan.
- Discounting effect is now calculated on the amount of the net defined benefit liability. Interests in the profit and loss are now calculated using the discount rate used to measure the defined benefit obligation. The concept of expected return no longer exists. Changes in actual return are shown in Other comprehensive income and not subsequently recycled to profit or loss.
- As the Group already recognizes actuarial gains and losses in other comprehensive income (OCI), this specific amendment has no impact on the consolidated financial statements.

The adjustments resulting from the application of this standard are as follows:

	December 2012	December 2011	December 2010
	(in millions of US dollars)		
Increase in employee benefit liability	15.9	17.1	19.2
Decrease in deferred tax liability	(5.9)	(6.4)	(7.0)
Net increase in the profit before tax of the year	1.5	1.7	1.6
Net increase in tax expense of the year	(0.5)	(0.6)	(0.6)
<b>Impact on net income</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>
Impact on retained earnings and cumulative translation adjustment	(11.0)	(11.8)	(13.2)
<b>Total impact on equity</b>	<b>(10.0)</b>	<b>(10.7)</b>	<b>(12.2)</b>
Attributable to:			
Owners of CGG SA	(10.0)	(10.7)	(12.2)
Non-controlling interests			

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This has no impact on statement of cash flows. The impact on the basic and diluted net income per share is not significant.

### *Estimates*

The preparation of consolidated financial statements in accordance with IFRS requires management to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosure of

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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.

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

<b>Note</b>	<b>Judgments and estimates</b>	<b>Key assumptions</b>
Note 2	Fair value of assets and liabilities acquired through purchase price allocation	Pattern used to determine the fair value of assets and liabilities
Note 3	Recoverability of client receivables	Assessment of clients' credit default risk
Note 7 and 8	Valuation of investments	Financial assets fair value Equity method companies fair value
Note 10	Amortization and impairment of multi-client surveys	Expected margin rate for each category of surveys Expected useful life of multi-client surveys
Note 10	Depreciation and Amortization of tangible and intangible assets	Assets useful lives
Note 11	Recoverable value of Goodwill and intangible assets	Expected geophysical market trends Discount rate (WACC)
Note 16	Post-employment benefits	Discount rate Participation rate to post employment benefit plans Inflation rate
Note 16	Provisions for risks, claims and litigations	Assessment of risks considering courts ruling and attorneys positions
Note 19	Revenue Recognition	Contracts completion rates Assessment of fair value of customers loyalty programs Assessment of fair value of contracts identifiable parts
Note 20	Development costs	Assessment of future benefits of each project
Note 24	Deferred tax assets	Hypothesis supporting the achievement of future taxable benefits

**Changes in estimates**

The useful life of our Sentinel solid streamers was reassessed from 7 to 6 years. Accordingly, starting January 1, 2013, we calculated depreciation expenses over the revised useful life for the remaining periods. This change has been applied prospectively and does not affect previous years. The effect of this change for the twelve months ended December 31, 2013 is as follows:

- Increase in depreciation expenses in operating income of US\$13.3 million,
- Decrease in the carrying amount of property, plant and equipment of US\$13.3 million.

**Reporting currency**

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Effective January 1, 2012, we changed the presentation currency of our consolidated financial statements from the euro to the US dollar to better reflect the profile of our revenues, costs and cash flows, which are

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primarily generated in US dollars, and hence, to better present the financial performance of the Group. As a change in presentation currency is a change of accounting policy, all comparative financial information has been restated into US dollars.

The currency translation adjustment was set to nil as of January 1, 2004 on transition to IFRS and has been re-presented on the basis that the Group has reported in US dollars since that date.

The functional currency of the parent company remains the euro. The currency translation adjustment resulting from the parent company is presented in other reserves.

The main restatements related to the change in the presentation currency from euro to US dollar for the year ended December 31, 2011 and December 31, 2010 were as follows (in millions):

	Historical consolidated financial statements as of Dec.31, 2011 in euros	Historical consolidated financial statements of Dec.31, 2011 converted into US dollars <sup>(1)</sup>	Restatements <sup>(2)</sup>	Restatements IAS 19R	Restated consolidated financial statements as of Dec.31, 2011 to US dollars
Common stock, additional paid-in capital, retained earnings and other	2,883.1	3,730.5	+102.4	(12.5)	3,820.4
Cumulative translation adjustment	55.8	72.2	(99.8)	1.8	(25.8)
<b>Equity attributable to owners of CGG</b>	<b>2,938.9</b>	<b>3,802.7</b>	<b>+2.6</b>	<b>(10.7)</b>	<b>3,794.6</b>

<sup>(1)</sup> Converted at the closing exchange rate of 1.2939 US\$ per euro

<sup>(2)</sup> Differences between historical currency exchange rates and the closing rate of 1.2939 US\$ per 1 euro, including US\$(17.0) million translation adjustments from the parent company presented in other reserves.

	Historical consolidated financial statements as of Dec.31, 2010 in euros	Historical consolidated financial statements of Dec.31, 2010 converted into US dollars <sup>(1)</sup>	Restatements <sup>(2)</sup>	Restatements IAS 19R	Restated consolidated financial statements as of Dec.31, 2010 to US dollars
Common stock, additional paid-in capital, retained earnings and other	2,837.2	3,791.1	(39.3)	(13.6)	3,738.2
Cumulative translation adjustment	(25.1)	(33.6)	39.8	1.4	7.6
<b>Equity attributable to owners of CGG</b>	<b>2,812.1</b>	<b>3,757.5</b>	<b>+0.5</b>	<b>(12.2)</b>	<b>3,745.8</b>

<sup>(1)</sup> Converted at the closing exchange rate of 1.3362 US\$ per euro

<sup>(2)</sup> Differences between historical currency exchange rates and the closing rate of 1.3362 US\$ per 1 euro, including US\$(21.4) million translation adjustments from the parent company presented in other reserves.

**1 Basis of consolidation**

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

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Subsidiaries are fully consolidated from the date of acquisition, being the date on which we obtain control, and continue to be consolidated until the date when such control ceases. Control is achieved when we are

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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. If we lose control over a subsidiary, we:

derecognize the assets (including goodwill) and liabilities of the subsidiary,

derecognize the carrying amount of any non-controlling interest,

derecognize the cumulative translation differences, recorded in equity,

recognize the fair value of the consideration received,

recognize the fair value of any investment retained,

recognize any surplus or deficit in profit or loss, and

reclassify the parent's share of components previously recognized in other comprehensive income to profit or loss or retained earnings, as appropriate.

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. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

## **2 Foreign currency**

The financial statements of all of our subsidiaries are maintained in the local currency, with the exception of the financial statements of subsidiaries for which the functional currency is different. In those subsidiaries, the functional currency is the currency in which they primarily conduct their business. Goodwill attributable to subsidiaries is accounted for in the functional currency of the applicable entities.

When translating the financial statements of subsidiaries to US\$, year-end exchange rates are applied to balance sheet items, while average annual exchange rates are applied to income statement items. Adjustments resulting from this process are recorded in a separate component of shareholders' equity.

With respect to affiliates accounted for using the equity method, the effects of exchange rates changes on the net assets of the affiliate are recorded in a separate component of shareholders' equity.

Transactions denominated in currencies other than the functional currency of a given entity are recorded at the exchange rate prevailing on the date of the transaction. Monetary assets and liabilities denominated in foreign currencies other than the functional currency are revalued at year-end exchange rates and any resulting unrealized exchange gains and losses are included in income. Unrealized exchange gains and losses

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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.

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### **3 *Business combinations***

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value and the amount of any non-controlling interest in the acquiree. 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.

If the business combination is achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss. Any contingent consideration to be transferred by us will be recognized at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration which is deemed to be a financial instrument will be recognized in accordance with IAS 39 either in profit or loss or as a change in other comprehensive income. If the contingent consideration is classified as equity, it should not be remeasured until it is finally settled within equity. Goodwill is initially measured at cost being the excess of the aggregate of the consideration transferred measured at fair value and the amount recognized for non-controlling interest over the net identifiable assets acquired and liabilities assumed.

If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognized in profit or loss.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's 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***

Operating revenues are recognized when they can be measured reliably, and when it is likely that the economic benefits associated with the transaction will flow to the entity, which is at the point that such revenues have been realized or are considered realizable.

#### *Multi-client surveys*

Revenues related to multi-client surveys result from (i) pre-commitments and (ii) licenses after completion of the surveys ( after-sales ).

*Pre-commitments* Generally, we obtain commitments from a limited number of customers before a seismic project is completed. These pre-commitments cover part or all of the survey area blocks. In return for the commitment, the customer typically gains the right to direct or influence the project specifications, advance access to data as it is being acquired, and favorable pricing. We record payments that it receives during periods of mobilization as advance billing in the balance sheet in the line item Advance billings to customers .

We recognize pre-commitments as revenue when production has started based on the physical progress of the project, as services are rendered.

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*After sales* Generally, we grant a license entitling non-exclusive access to a complete and ready for use, specifically defined portion of our multi-client data library in exchange for a fixed and determinable payment. We recognize after sales revenue upon the client executing a valid license agreement and having been granted access to the data.

In case after sales agreements contain multiple deliverable elements, the revenue is allocated to the various elements based on specific objective evidence of fair value, regardless of any separate allocations stated within the contract for each element. Each element is appropriately accounted for under the applicable accounting standard.

*After sales volume agreements* We enter into a customer arrangement in which we agree to grant licenses to the customer for access to a specified number of blocks of the multi-client library. These arrangements typically enable the customer to select and access the specific blocks for a limited period of time. We recognize revenue when the blocks are selected and the client has been granted access to the data and if the corresponding revenue can be reliably estimated.

### *Exclusive surveys*

In exclusive surveys, we perform seismic services (acquisition and processing) for a specific customer. We recognize proprietary/contract revenues as the services are rendered. We evaluate the progress to date, in a manner generally consistent with the physical progress of the project, and recognize revenues based on the ratio of the project cost incurred during that period to the total estimated project costs as far as they can reliably be assessed.

The billings and the costs related to the transit of seismic vessels at the beginning of the survey are deferred and recognized over the duration of the contract by reference to the technical stage of completion.

In some exclusive survey contracts and a limited number of multi-client survey contracts, we are required to meet certain milestones. We defer recognition of revenue on such contracts until all milestones that provide the customer a right of cancellation or refund of amounts paid have been met.

### *Equipment sales*

We recognize revenues on equipment sales upon delivery to the customer when risks and rewards are fully transferred. Any advance billings to customers are recorded in current liabilities.

### *Software and hardware sales*

We recognize revenues from the sale of software and hardware products following acceptance of the product by the customer at which time we have no further significant vendor obligations remaining. Any advance billings to customers are recorded in current liabilities.

If an arrangement to deliver software, either alone or together with other products or services, requires significant production, modification, or customization of software, the entire arrangement is accounted for as a production-type contract, i.e. using the percentage of completion method.

If the software arrangement provides for multiple deliverables (e.g. upgrades or enhancements, post-contract customer support such as maintenance, or services), the revenue is allocated to the various elements based on specific objective evidence of fair value, regardless of any separate allocations stated within the contract for each element. Each element is appropriately accounted for under the applicable accounting standard.

Maintenance revenues consist primarily of post contract customer support agreements and are recorded as advance billings to customers and recognized as revenue on a proportional performance basis over the contract period.

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### *Other geophysical sales/services*

Revenues from our other geophysical sales/services are recognized as the services are performed and, when related to long-term contracts, using the proportional performance method of recognizing revenues.

### *Customer loyalty programs*

We may grant award credits to our main clients. These award credits are contractually based on cumulative services provided during the calendar year and attributable to future services.

These credits are considered as a separate component of the initial sale and measured at their fair value by reference to the contractual rates and the forecasted cumulative revenues for the calendar year. These proceeds are recognized as revenue only when the obligation has been fulfilled.

## **5 *Cost of net financial debt***

Cost of net financial debt includes expenses related to financial debt, composed of bonds, the debt component of convertible bonds, bank loans, capital-lease obligations and other financial borrowings, net of income provided by cash and cash equivalents.

Borrowing costs are capitalized for all eligible assets.

## **6 *Income taxes and deferred taxes***

Income taxes includes 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, using the balance sheet liability method. Deferred tax assets are recognized only when the recovery is considered as probable.

Deferred tax liabilities are recognized on intangible assets identified and recognized as part of business combinations (technological assets, customer relationships).

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:

equipments and tools	3 to 10 years
vehicles	3 to 5 years
aircrafts	5 to 10 years
seismic vessels	12 to 30 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.





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We include residual value, if significant, when calculating 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*

Assets under a finance lease agreement or a long-term lease agreement that transfers substantially all the risks and rewards incidental to ownership to the Group are accounted for as fixed assets at the commencement of the lease term, at amounts equal to the fair value of the leased property or, if lower, the present value of the minimum lease payments, each determined at the inception of the lease. Minimum lease payments are apportioned between the finance charge and the reduction of the outstanding liability and the finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability. Assets under finance lease are depreciated over the shorter of its useful life and the lease term, if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term.

Rent payments under operating leases are recognized as operating expenses on a straight-line basis over the lease term.

### *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 balance sheet date.

### *Multi-client surveys*

Multi-client surveys consist of seismic surveys to be licensed to customers on a non-exclusive basis. All costs directly incurred in acquiring, processing and otherwise completing seismic surveys are capitalized into the multi-client surveys (including transit costs when applicable). The value of our multi-client library is stated on our balance sheet at the aggregate of those costs less accumulated amortization or at fair value if lower. We review the library for potential impairment at each balance sheet date at the relevant level (independent surveys or groups of surveys).

Multi-client surveys are classified into a same category when they are located in the same area with the same estimated sales ratio, such estimates generally relying on the historical patterns.

We amortize the multi-client surveys over the period during which the data is expected to be marketed using an amortization rate applied to recognized revenues.

Depending on the category of the survey, we generally use amortization rates from 50% to 83.3% corresponding to the ratio of total estimated costs over total estimated sales, unless specific indications lead to apply a different rate.

For all categories of surveys starting from data delivery, a straight-line depreciation scheme is applied over a five-year period as a minimum, if total accumulated depreciation from the applicable amortization rate is below this minimum level.

However, for the surveys of our offshore Brazilian multi-client library which were directly impacted by the repeated delays of new licensing rounds, we made a change of estimate, effective April 1, 2012 with prospective effect, by applying a minimum straight-line depreciation over 7 years.

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*Development costs*

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 less accumulated amortization and impairment losses.

We amortize capitalized development costs over 5 years.

Research and development expenses in our income statement represent the net cost of development costs that are not capitalized, of research costs, offset by government grants acquired for research and development.

*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*

The carrying values of our assets (excluding inventories, deferred tax assets, assets arising from employee benefits and financial assets) are reviewed at each balance sheet date or if any indication exists that an asset may be impaired, in compliance with IAS 36 Impairment of assets. Factors we consider important that could trigger an impairment review 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 acquired 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 net fair value less costs of disposal and value in use.

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Goodwill, assets that have an indefinite useful life and intangible assets are allocated to cash generating units or group of cash generating units. We estimate the recoverable amount of these cash generating units at each balance sheet closing date and whenever any indication exists that the cash generating unit may be impaired.

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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 value retained is a fair value less cost of disposal, the fair value is determined by reference to an active market.

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 then, 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, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the income statement unless the asset is carried at a revalued amount, in which case the reversal is treated as a revaluation increase.

Impairment losses recognized on goodwill cannot be reversed.

### *Assets held for sale*

Assets classified as assets held for sale correspond to non-current assets for which the net book value will be recovered by a sale rather than by their use in operations. Assets held for sale are valued at the lower of historical cost and fair value less cost to sell.

## **8 Investments and other financial assets**

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

### *Investments in companies under equity method*

Under the equity method, the investments in our associates are carried in the balance sheet at cost plus post acquisition changes in our share of net assets of the associates. 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 recognize the amount in the share of profit of an associate in the statement of operations.

Upon loss of significant influence over the associate, we measure and recognize any retaining investment at its fair value. Any difference between the carrying amount of the associate upon loss of significant influence and the fair value of the retaining investment and proceeds from disposal is recognized in profit or loss.

### *Investments in non-consolidated entities*

In accordance with IAS 39 Financial instruments, we classify investments in non-consolidated entities as available-for-sale and therefore present them on the balance sheet at their fair value. The fair value for listed



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securities is their market price at the balance sheet date. If a reliable fair value cannot be established, securities are valued at historical cost. We account for changes in fair value directly in other comprehensive income, except in case of impairment ( significant or prolonged decline in the fair value).

Gains or losses on disposal of impaired investments in non-consolidated entities classified as available for sale are not recognized through profit and loss.

### *Loans and non-current receivables*

Loans and non-current receivables are accounted for at amortized cost.

### *Impairment*

We examine available-for-sale securities and other financial assets at each balance sheet date to detect any objective evidence of impairment. Where this is the case, we record an impairment loss in the statement of operations.

Where there is objective evidence of impairment of a financial asset (for instance in case of significant or prolonged decline of the value of the asset) we record an irreversible impairment loss in the statement of operations.

### *Derecognition*

We derecognize a financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) when:

The rights to receive cash flows from the asset have expired, or

We have transferred the rights to receive cash flows from the asset or have assumed an obligation to pay the received cash flows in full without material delay to a third party under a pass-through arrangement; and either (a) we have transferred substantially all the risks and rewards of the asset, or (b) we have neither transferred nor retained substantially all the risks and rewards of the asset, but have transferred control of the asset.

When we have transferred the rights to receive cash flows from an asset, we evaluate if and to what extent we have retained the risks and rewards of ownership. When we have neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the asset is recognised to the extent of our continuing involvement in the asset. In that case, we also recognise an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that we have retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that we could be required to repay.

## **9 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.

## **10 Inventories**

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

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We calculate the cost of inventories on a weighted average price basis for our Equipment segment and on a first-in first-out basis for Acquisition and Geology, Geophysics & Reservoir ( GGR ) segments.

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### ***11 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, post-employment benefits 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.

That benefit is discounted to determine its present value, and the fair value of any plan assets is 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.

Unvested past services costs are recognized immediately if the benefits have vested immediately following the introduction of, or changes to, a pension plan.

We record actuarial gains and losses on defined benefits plans directly in equity.

### ***12 Financial debt***

Financial debt is accounted for:

As at the date of issuance, at the fair value of the consideration received, less issuance fees and/or issuance premium;

subsequently, at amortized cost, corresponding to the fair value at which is initially recognized, less repayments at the nominal amount and increased or decreased for the amortization of all differences between this original fair value recognized and the amount at maturity; differences between the initial fair value recognized and the amount at maturity are amortized using the effective interest rate method.

### ***13 Convertible debt***



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The Company recognizes separately the components of a convertible debt respectively a financial liability and an option to the holder of the instrument to convert it into an equity instrument of the Company.

The Company first determines the carrying amount of the liability component by measuring the fair value of a similar liability (including any embedded non-equity derivative features) that does not have an associated equity component.

The carrying amount of the equity instrument represented by the option to convert the instrument into ordinary shares is then determined by deducting the fair value of the financial liability from the fair value of the compound financial instrument as a whole. The carrying amount is presented net of associated deferred taxes.

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The sum of the carrying amounts assigned to the liability and equity components on initial recognition is always equal to the fair value that would be ascribed to the instrument as a whole.

**14 Derivative financial instruments**

We use derivative financial instruments to hedge our exposure to foreign exchange fluctuations from operational, financing and investment activities denominated in a currency different from the functional currency. 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) .

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 shareholder s equity under the line item Cumulative 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 the net investment is sold.

Derivative financial instruments are stated at fair value.

The gain or loss on reassessment to fair value is recognized immediately in the statement of operations. However, 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 shareholder s 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.

**15 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 multi-client surveys are presented net of depreciation and amortization capitalized in multi-client surveys, to reflect actual cash outflows. Depreciation and amortization capitalized in multi-client surveys are also restated in operating activities.

*Financing activities*

Financing activities are activities that result in changes in the size and composition of the contributed equity and borrowings of the entity. They include the cash impact of financial expenses.

*Cash and cash equivalents*

Cash and cash equivalents in the consolidated balance sheet 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.



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**16 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 Black-Scholes 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 to fair value at each reporting date up to and including the settlement date, which changes in fair value recognized in the statement of operations.

**17 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 balance sheet as Other non-current liabilities .

**18 Earnings per share**

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

Diluted earnings per share amounts are calculated by dividing the net income attributable to ordinary equity holders of the Company and adjusted for the after-tax amounts of preference dividends, differences arising on the settlement of preference shares, and other similar effects of preference shares classified as equity, 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 conversion of convertible bonds, the exercise of stock options and shares from performance share plans.

**NOTE 2 ACQUISITIONS AND DIVESTITURES***During 2013**Acquisition of Fugro's Geoscience Division*

Pursuant to the terms of a Sale and Purchase Agreement (the SPA ) between the Company and Fugro NV ( Fugro ) dated September 24, 2012, we agreed to acquire (the Acquisition ) most of the Geoscience Division of Fugro, i.e.:

Fugro-Geoteam (specializing in marine streamer seismic data acquisition);

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Fugro Seismic Imaging (specializing in seismic data processing services);

Fugro Geophysical and Geological Services (specializing in geographical exploration services);

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De Regt Marine Cables (specializing in high-end cables and umbilicals),

as well as all related entities and assets, but excluding Fugro's multi-client library and ocean bottom nodes ( OBN ) activity (the acquired activities are referred to herein as the Geoscience Division ).

The Parties have also agreed to establish certain strategic partnerships with Fugro, in particular, to:

Establish a joint venture with Fugro, Seabed Geosolutions BV, to which Fugro would contribute its OBN activity and we would contribute our shallow water, ocean bottom cable ( OBC ) and OBN activities (the Seabed JV ); and

Enter into certain commercial agreements with Fugro, including (i) a non-exclusive selling and marketing agreement with respect to Fugro's multi-client library, (ii) a technological and commercial agreement providing reciprocal preferred supplier status and (iii) a transitional services agreement (together, the Commercial Agreements ).

On January 31, 2013, we completed the acquisition with the exception of the Airborne activity and certain minor assets for which the acquisition took place on September 2, 2013, upon obtaining the main administrative authorizations.

The total purchase price, amounted to US\$1,572 million, leading to a goodwill of US\$721 million.

This transaction was financed with the net proceeds of the 414 million capital increase with a rights issue we made in October 2012 (see note 15), with the net proceeds of the 360 million convertible bonds we issued in November 2012 (note 13), and with a vendor loan from Fugro which was agreed upon to achieve a rapid closing. This vendor loan amounted to 125 million at the closing date, and was extended to 225 million at the date of effective acquisition of the airborne activity.

As of December 31, 2013, we paid a total net consideration of US\$933.0 million for the whole Fugro transaction, after final adjustments, notably for actual levels of working capital, indebtedness and cash position. Moreover, half of the vendor loan is repaid.

Based on the financial information related to entities we acquired (Fugro Geoscience Division, excluding multi-client survey), the Group operating revenues would have been US\$3,875.8 million if the acquisition had taken place on January 1, 2013. The impact on the net income (loss) would have been not significant.

The amounts of net assets acquired and liabilities assumed recognized at the acquisition date are as follows:

	<b>Fair value (In millions of US dollars)</b>
Cash & cash equivalents	28
Current assets (liabilities), net	39
Vessels and fixed assets, net <sup>(1)</sup>	625
Other non-current assets, net	12
Intangible assets, net <sup>(1)</sup>	94
Customer relationships (weighted-average life of 14 years)	53
Multi-client geological data library (maximum life of 7 years) <sup>(2)</sup>	39
Financial debt	(4)
Non-current liabilities	(35)
<b>Total identifiable net assets acquired</b>	<b>851</b>
<b>Goodwill</b>	<b>721</b>
<b>Purchase price consideration</b>	<b>1,572</b>

<sup>(1)</sup> The fair values of two vessels and their related equipment and technologies were determined by using comparable market data.

<sup>(2)</sup> *The fair value of the Robertson's geological data library was determined by using a relief from royalty approach.*

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The goodwill recognized includes intangible assets that do not qualify for separate recognition such as assembled workforce and synergies expected between the business lines of our GGR segment that resulted from the acquisition (see note 19).

None of the goodwill recognized is expected to be deductible for income tax purposes.

*Creation of the Seabed Joint venture*

The closing of the joint venture Seabed Geosolutions BV between CGG and Fugro took place on February 16, 2013. We hold 40% of the share-capital of Seabed Geosolutions BV. This entity has been accounted for under equity method since then.

The following table summarizes the consideration received for the contribution of our Shallow water and OBC businesses and the carrying value of the assets contributed:

	(in millions of US dollars)
<b>Consideration received</b>	
Credit note <sup>(1)</sup>	281
Fair value of our shares in Seabed Geosolutions BV <sup>(2)</sup>	217
<b>Total consideration received</b>	<b>498</b>
<b>Carrying value of the contributed assets and liabilities</b>	
Cash	9
Goodwill	313
Other assets and liabilities	91
<b>Total carrying value of the contributed assets and liabilities</b>	<b>413</b>
<b>Net gain realized</b>	<b>85</b>

<sup>(1)</sup> This relates to the amount due by Fugro and offsets partially the gross cash paid for the acquisition of the Fugro Geoscience Division (see above)

<sup>(2)</sup> The fair value of our shares in Seabed Geosolutions BV has been assessed using a multi-criteria approach based on the present value of discounted cash flows and market multiples derived from a set of comparable transactions.

The net gain of US\$84.5 million arising from our contribution to this entity was recorded in the line item Other revenues (expenses) net in our statement of operations.

As of December 31, 2012, in accordance with the terms of the SPA and especially the establishment of the joint venture Seabed Geosolutions BV, we reclassified the contributed assets for US\$76.4 million in assets held for sale in our balance sheet. We also reclassified the goodwill corresponding to contributed businesses for US\$300 million (see note 5).

*Creation of a ship management joint venture with Louis Dreyfus Armateurs Group (LDA)*

On April 16, 2013, CGG and Louis Dreyfus Armateurs Group (LDA) created a ship management joint venture, Geofield Ship Managements Services SAS, in which we own 50%. The new joint venture provides maritime ship management services for CGG's high-capacity 3D seismic vessels. The company has been accounted for under equity method in our financial statements since this date.

*Purchase option over Geomar with Louis Dreyfus Armateurs Group (LDA)*

On November 27, 2013, we agreed with LDA to exercise a purchase option on the shares held by LDA in Geomar the company owning the CGG Alizé vessel. This purchase will be effective on April 1, 2014.



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This transaction has no impact on the consolidation method of this subsidiary which remains fully consolidated. The change of ownership interests has been accounted as an equity transaction as of December 31, 2013.

### *Framework agreement with Industrialization & Energy Services Company (TAQA)*

On December 31, 2013, CGG and TAQA entered into a Framework agreement which strengthens and extends their historical and long-term partnership in the Middle East.

CGG and TAQA are currently shareholders of two joint ventures in the Middle East: Argas, a Saudi company established in 1966, covering geophysical activities in the Kingdom of Saudi Arabia (KSA), of which TAQA owns 51% and CGG owns 49%; Ardiseis, a company established in 2006 in Dubai, covering land & shallow water data acquisition activities in the rest of the Middle East, of which CGG owns 51% and TAQA 49%. Through the Framework Agreement, Argas will become the sole shareholder of Ardiseis FZCO, with Argas and Ardiseis FZCO pooling all their resources to create a more efficient and powerful combined Argas Group. The new Argas group will have a stronger capital base, will cover a larger business scope, and will be 51% owned by TAQA and 49% owned by CGG.

In relation with this agreement, net assets of Ardiseis FZCO have been reclassified in Assets held for sales for an amount of US\$22 million (see note 5).

### *Sale of the Company's shareholding interest in Spectrum ASA*

On February 20, 2013, we sold all of the remaining shares we held in Spectrum ASA at NOK 47.50 per share. We recognized a US\$19.8 million gain recorded in the line item "Other revenues (expenses) net" in our consolidated statement of operations.

## ***During 2012***

### *Geophysical Research Corporation*

On January 17, 2012, Sercel acquired the assets of Geophysical Research Corporation, LLC ( "GRC" ). Headquartered in Tulsa, Oklahoma (USA), and established in 1925 by Amerada Petroleum Corporation, GRC is a leading provider of downhole sensors and gauges for the oil and gas industry. The purchase price amounted to US\$66 million, including an earn-out of US\$17 million, and after allocation of the purchase price, we recorded a final goodwill of US\$23 million.

GRC is fully consolidated in our financial statements since January 17, 2012.

### *PTSC CGGV Geophysical Survey Company Limited*

On March 27, 2012, we contributed the seismic vessel *Amadeus*, a high capacity 3D seismic vessel, to our newly established joint venture PTSC CGGV Geophysical Survey Company Limited while PTSC contributed the *Binh Minh II*, a 2D seismic vessel. The joint venture is 51% owned by PTSC and 49% owned by CGG. The company is accounted under the equity method in our financial statements since this date.

### *Spectrum ASA*

During the year ended December 31, 2012, we sold a 18.82% stake in Spectrum ASA and we recognized a gain amounting to US\$15 million in the line item "Other revenues (expenses)" of our statement of operations. Our remaining shareholding interest as of December 31, 2012 represented 10.14% of Spectrum ASA. Spectrum ASA was accounted under the equity method in our financial statements as we had one member attending the Board of Directors.

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### *During 2011*

#### *Norfield AS*

On January 13, 2011, the exchange of assets between certain subsidiaries of CGG and the Norwegian group Norfield was completed. As a result of this transaction, we acquired Voyager AS (renamed Exploration Vessel Resources II AS), the owner of the seismic vessel *Geowave Voyager*; and sold the seismic vessel *Venturer* to Norfield AS; CGG is no longer a shareholder of Norfield AS.

CGG owns 100% of Exploration Vessel Resources II AS. This company is consolidated in our financial statements since January 13, 2011.

We recorded a gain of US\$10.9 million in the line item Other revenues (expenses) in our statement of operations from the disposal of our assets in relation to this transaction (see note 21).

On the date we acquired it, Exploration Vessel Resources II AS entered into a US\$45 million credit facility secured by a pledge over the *Geowave Voyager* and subject to substantially the same covenants as our US senior credit facilities.

#### *Petrodata Consulting LLC*

On March 17, 2011, we purchased for US\$2.5 million Petrodata Consulting LLC, a Moscow-based company offering static and dynamic reservoir modeling, reserve estimation and risking, and field development services to the international oil and gas industry. CGG owns 100% of the company. Petrodata Consulting LLC is fully consolidated in our financial statements.

#### *PT Elnusa-CGGVeritas Seismic*

On April 7, 2011, an agreement was signed with PT Elnusa Tbk (Elnusa) to create a marine joint venture company in Indonesia, PT Elnusa-CGGVeritas Seismic. The company's vocation was to deliver 2D and 3D marine seismic acquisition services to oil and gas company clients mainly operating in Indonesia and to operate the first Indonesian-owned and flagged seismic vessel, the *Pacific Finder*.

PT Elnusa-CGGVeritas Seismic, under joint control, is 51% owned by Elnusa and 49% owned by CGG. This company is accounted under the equity method in our financial statements since July 5, 2011.

#### *PTSC CGGV Geophysical Survey Company Limited*

On April 19, 2011, we entered into an agreement with PetroVietnam Technical Services Corporation (PTSC) to create a marine joint venture company, PTSC CGGV Geophysical Survey Company Limited. The company delivers 2D and 3D marine seismic acquisition services to oil and gas company clients mainly operating in Vietnamese waters and the region.

#### *CGG Eidesvik Ship Management AS (formerly named CGGVeritas Eidesvik Ship Management AS)*

On June 27, 2011, we signed a joint venture agreement with Eidesvik offshore to create a joint venture to manage ten high-capacity 3D vessels in the CGG fleet, including the two new X-BOW vessels, *Oceanic Vega* and *Oceanic Sirius*.

The joint venture, CGG Eidesvik Ship Management AS, is 51% owned by Eidesvik and 49% owned by CGG. This company is accounted under the equity method in our financial statements since June 27, 2011.

#### *Spectrum ASA*

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On July 28, 2011, we signed a strategic agreement with Spectrum ASA, a Norwegian multi-client company, for the contribution of our 2D multi-client marine library for consideration in cash and a 25% equity stake in

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Spectrum ASA, which together amounted to US\$40 million. The transaction was finalized on September 15, 2011. We recognized a gain of US\$18.8 million presented in the line item other revenues (expenses) in our statement of operations (see note 21).

On October 3, 2011, in conjunction with this transaction, Spectrum ASA issued convertible bonds for an aggregate amount of US\$13.6 million (NOK77 million). The conditions of this issue are described in the prospectus issued by Spectrum ASA on September 14, 2011. In this scope, CGG was allocated 27,682,970 convertible bonds representing US\$4.9 million (NOK27.7 million). On December 30, 2011, we converted these bonds and received 1,977,355 shares of Spectrum ASA.

As a result, we hold 10,840,181 shares of Spectrum ASA representing 29% of its share-capital. The investment amounted to US\$26.7 million as of December 31, 2011 (see note 8). This company was accounted under the equity method in our financial statements since September 15, 2011.

*Cybernetix*

During 2011, we sold all of our shareholding in Cybernetix. The gain of US\$4.2 million from this disposal was recorded in the line item Other revenues (expenses) in our statement of operations (see note 21).

*Seismic vessels*

On October 3, 2011, the Group took delivery of the seismic vessel *Oceanic Sirius*. Oceanic Seismic Vessels AS, the owner of the vessel, is accounted under the equity method since the delivery date.

**NOTE 3 TRADE ACCOUNTS AND NOTES RECEIVABLE**

Analysis of trade accounts and notes receivables by maturity is as follows:

	2013	December 31, 2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Trade accounts and notes receivable gross current portion	751.1	600.4	679.4
Less: allowance for doubtful accounts current portion	(29.6)	(23.8)	(22.5)
<b>Trade accounts and notes receivables net current portion</b>	<b>721.5</b>	<b>576.6</b>	<b>656.9</b>
Trade accounts and notes receivable gross non-current portion	5.2	9.6	1.8
Less: allowance for doubtful accounts non-current portion	(1.0)	(0.5)	(1.4)
<b>Trade accounts and notes receivables net non-current portion</b>	<b>4.2</b>	<b>9.1</b>	<b>0.4</b>
Recoverable costs and accrued profit, not billed	261.7	303.0	218.7
<b>Total accounts and notes receivables</b>	<b>987.4</b>	<b>888.7</b>	<b>876.0</b>

In 2013, net trade accounts and notes receivable acquired in Fugro Geoscience Division amounted to US\$192.3 million. In 2012, we reclassified trade accounts and note receivables to be contributed to the joint venture Seabed Geosolutions BV for US\$11 million in assets held for sale.

Recoverable costs and accrued profit not billed comprise amounts of revenue recognized under the percentage of completion method on contracts for which billings had not been presented to the contract owners. Such unbilled accounts receivable are generally billed over the 30 or 60 days after services has been delivered.

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In the Acquisition and Geology, Geophysics & Reservoir ( GGR ) segments, customers are generally large national or international oil and gas companies, which management believes reduces potential credit risk. In the Equipment segment, a significant portion of sales is paid by irrevocable letters of credit.

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The Group 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. Allowances for doubtful accounts only relate to overdue receivables as of December 31, 2013.

The non-current receivables relate to our Equipment segment as of December 31, 2013, 2012 and 2011.

As of December 31, 2013 the ageing analysis of net trade accounts and notes receivables is as follows:

	Not past due	30 days	30 - 60 days	60 - 90 days	90 - 120 days	> 120 days	Total
<b>2013</b>	445.3	99.9	71.6	18.6	12.6	77.7	<b>725.7</b>
<b>2012</b>	340.8	103.4	16.8	42.3	13.1	69.3	<b>585.7</b>
<b>2011</b>	374.3	131.5	35.2	39.5	21.0	55.8	<b>657.3</b>

**Litigation**

On March 18, 2013, CGG Services SA, 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 the two entities between 2008 and 2010. We believe that this arbitration proceeding will allow us to recover the receivables that are recorded on our balance sheet as unpaid receivables as of December 31, 2013.

**Factoring agreements**

In 2012 and 2013, we entered into several factoring agreements with various banks. As of December 31, 2013, we had transferred US\$36.9 million compared to US\$68.2 million as of December 31, 2012 of notes receivable as part of these agreements. The risks retained by the Group are mainly the risk of payment delay up to 30 days and the risk of commercial litigation. Both have been historically low with the transferred clients.

As a consequence, the Group retained only non-significant amounts to the extent of its continuing involvement. Related costs recorded in operating income are not significant.

**NOTE 4 INVENTORIES AND WORK IN PROGRESS**

Analysis of Inventories and work-in-progress is as follows:

	December 31, 2013			December 31, 2012 (restated)			December 31, 2011 (restated)		
	Cost	Valuation Allowance	Net	Cost	Valuation Allowance	Net	Cost	Valuation Allowance	Net
	(In millions of US dollars)								
Consumables and spares parts	60.6	(0.8)	59.8	48.1	(1.2)	46.9	47.9	(1.2)	46.7
Raw materials and sub-assemblies	121.8	(16.5)	105.3	108.7	(14.5)	94.2	92.4	(14.0)	78.4
Work in progress	245.6	(17.5)	228.1	212.2	(11.7)	200.5	179.9	(11.6)	168.3
Finished goods	127.3	(15.1)	112.0	87.5	(9.9)	77.6	73.7	(5.6)	68.1
<b>Inventories and work in progress</b>	<b>555.1</b>	<b>(49.9)</b>	<b>505.2</b>	<b>456.5</b>	<b>(37.3)</b>	<b>419.2</b>	<b>393.9</b>	<b>(32.4)</b>	<b>361.5</b>

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The variation of inventories and work in progress is as follows:

Variation of the period	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Balance at beginning of period	419.2	361.5	353.4
Variations	60.1	49.2	19.8
Movements in valuation allowance	(11.3)	(2.5)	(6.8)
Change in consolidation scope	20.9	6.0	
Change in exchange rates	13.8	6.4	(5.9)
Others	2.5	(1.4)	1.0
<b>Balance at end of period</b>	<b>505.2</b>	<b>419.2</b>	<b>361.5</b>

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

Change in consolidation scope corresponds to inventories and work in progress acquired in the Fugro's Geoscience Division.

The line item Others includes a reclassification of US\$2.9 million of inventories in assets held for sale in 2013 and US\$2.0 million in 2012.

**NOTE 5 OTHER CURRENT ASSETS AND ASSETS HELD FOR SALE*****Other current assets***

Detail of other current assets is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Personnel and other tax assets	61.7	44.3	51.0
Fair value of financial instruments (see note 14)	1.8	3.0	3.5
Other miscellaneous receivables <sup>(a)</sup>	34.4	27.3	37.0
Supplier prepayments	52.1	39.2	39.0
Prepaid expenses	25.6	25.8	26.5
<b>Other current assets</b>	<b>175.6</b>	<b>139.6</b>	<b>157.0</b>

<sup>(a)</sup> Includes restricted cash for \$4.8 million in 2013.

**Table of Contents****Assets held for sale**

Detail of assets held for sale is as follows:

	2013	December 31, 2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Ardisis Net assets related to the framework agreement with TAQA (see note 2)	21.9		
Massy headquarters land & building	10.7	10.7	10.7
Seabed Geosolutions BV Net assets (see note 2)		376.4	
Seismic vessels		6.8	48.3
Equipments and others	5.1		5.5
<b>Assets held for sale</b>	<b>37.7</b>	<b>393.9</b>	<b>64.5</b>

On February 16, 2013, we contributed assets to our newly established joint venture Seabed Geosolutions BV (see note 2).

In 2012 we contributed the seismic vessel *Amadeus*, a high capacity 3D seismic vessel, to our joint venture PTSC CGGV Geophysical Survey Company Limited (see note 2).

**NOTE 6 ASSET VALUATION ALLOWANCE**

Details of valuation allowances recorded against assets are as follows:

	December 31, 2013					
	Balance at beginning of year	Additions	Deductions	Unused Deductions	Others <sup>(a)</sup>	Balance at end of period
	(In millions of US dollars)					
Trade accounts and notes receivables	24.3	7.9	(6.1)		4.5	30.6
Inventories and work-in-progress	37.3	14.2	(2.9)		1.3	49.9
Tax assets	1.6		(1.5)			0.1
Other current assets	13.9	3.9	(6.6)			11.2
Loans receivables and other investments	0.2		(0.2)		0.1	0.1
<b>Total assets valuation allowance</b>	<b>77.3</b>	<b>26.0</b>	<b>(17.3)</b>		<b>5.9</b>	<b>91.9</b>

<sup>(a)</sup> Includes the effects of exchange rate changes and changes in the scope of consolidation.

Details of valuation allowances recorded against assets are as follows:

	December 31, 2012 (restated)					
	Balance at beginning of year	Additions	Deductions	Unused Deductions	Others <sup>(a)</sup>	Balance at end of period



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	(In millions of US dollars)				
Trade accounts and notes receivables	23.9	4.0	(3.8)	0.2	24.3
Inventories and work-in-progress	32.4	6.9	(4.4)	2.4	37.3
Tax assets	1.0	0.6			1.6
Other current assets	10.6	3.3			13.9
Loans receivables and other investments	1.2		(1.1)	0.1	0.2
<b>Total assets valuation allowance</b>	<b>69.1</b>	<b>14.8</b>	<b>(9.3)</b>	<b>2.7</b>	<b>77.3</b>

<sup>(a)</sup> Includes the effects of exchange rate changes and changes in the scope of consolidation.

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	Balance at beginning of year	Additions	December 31, 2011 (restated)			Balance at end of period
			Deductions (In millions of US dollars)	Unused Deductions	Others <sup>(a)</sup>	
Trade accounts and notes receivables	24.4	8.1	(6.6)		(2.0)	23.9
Inventories and work-in-progress	28.2	8.2	(1.4)		(2.6)	32.4
Tax assets	0.5	0.6			(0.1)	1.0
Other current assets	1.7	7.4			1.5	10.6
Loans receivables and other investments	2.9		(0.7)		(0.9)	1.2
<b>Total assets valuation allowance</b>	<b>57.7</b>	<b>24.3</b>	<b>(8.7)</b>		<b>(4.2)</b>	<b>69.1</b>

<sup>(a)</sup> Includes the effects of exchange rate changes and changes in the scope of consolidation.

**NOTE 7 INVESTMENTS AND OTHER FINANCIAL ASSETS**

Detail of investments and other financial assets is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Non-consolidated investments	8.5	7.3	6.7
Loans and advances	26.5	30.5	3.0
Deposits and other	12.8	15.9	15.0
<b>Total</b>	<b>47.8</b>	<b>53.7</b>	<b>24.7</b>

Non-consolidated investments are as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
<i>Other investments in non-consolidated companies</i>			
Tronic s Microsystems SA <sup>(a)</sup>	5.3	5.1	5.0
Other investments in non-consolidated companies	3.2	2.2	1.7
<b>Total non-consolidated investments</b>	<b>8.5</b>	<b>7.3</b>	<b>6.7</b>

<sup>(a)</sup> The Group s shareholding in Tronic s Microsystems SA is 16.07% at December 31, 2013, 2012 and 2011.

**Loans and advances**

Loans and advances to companies accounted for under equity method include a loan granted by CGG Holding BV to PTSC CGGV Geophysical Survey Limited for US\$25.1 million as of December 31, 2013 and US\$29.2 million as of December 31, 2012.



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Investments in companies accounted for under equity method are comprised of:

	Country / Head office	2013 % of interests	December 31,		
			2013	2012 (restated)	2011 (restated)
(In millions of US dollars)					
Argas	Saudi Arabia / Al-Khobar	49,0%	63.3	51.1	69.6
CGG Eidesvik Ship Management AS	Norway / Bergen	49,0%	1.2	(0.8)	0.2
Eidesvik Seismic Vessels AS	Norway / Bomlo	49,0%	14.2	12.5	10.9
Gardline	Singapore	49,0%	5.8	4.9	3.8
Magnitude Microseismic LLC	US / Houston	49,0%	(4.1)	(2.4)	(1.4)
Oceanic Seismic Vessels AS	Norway / Bomlo	49,0%	21.6	19.2	17.4
PT Elnusa-CGGVeritas Seismic	Indonesia / Jakarta	49,0%	0.6	0.5	3.4
PTSC CGGV Geophysical Survey Limited	Vietnam / Vung Tau City	49,0%	28.9	27.1	
Reservoir Evaluation Services LLP	Kazakhstan / Almaty	36,0%	1.6		
Seabed Geosolutions BV	The Netherlands / Amsterdam	40,0%	193.2		
Spectrum ASA	Norway / Oslo	0,0%		12.4	27.8
Veri-Illuq Geophysical Ltd.	Canada / Calgary	49,0%	(0.1)		
Yamoria Geophysical Ltd.	Canada / Calgary	49,0%	(0.4)		

**Investments in companies under the equity method**

**325.8      124.5      131.7**

The following tables illustrate summarized financial information of the main contributive entities accounted for under equity method as of December 31, 2013:

Entities business lines	Argas	Seabed
	Land	Geosolutions BV Land
in millions of US\$		
Revenue	195.6	159.9
Depreciation and amortization	(40.2)	(38.4)
Cost of financial debt	0.4	
Tax income (expense)		6.1
<b>Net income (loss)</b>	<b>24.7</b>	<b>(62.2)</b>
Cash and cash equivalents	70.5	19.2
Current assets	56.3	65.5
Total non-current assets	47.4	567.1
Current financial liabilities		1.9
Current liabilities	27.6	87.4
Non-current financial liabilities		
Non-current liabilities	10.4	4.2
<b>Equity</b>	<b>136.2</b>	<b>558.3</b>

**Dividends paid to CGG**

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Reconciliation of the summarized financial information above with the carrying amount of the main contributive entities in our balance sheet as of December 31, 2013 is as follows:

	Argas	Seabed Geosolutions BV in millions of US\$	Other entities	Total
Equity of main contributive entities	136.2	558.3		
% of interest	49%	40%		
% of equity of main contributive entities	66.7	223.3		
Adjustments and eliminations	(3.4)	(30.1)		
Investments in companies under the equity method	<b>63.3</b>	<b>193.2</b>	<b>69.3</b>	<b>325.8</b>

The variation of Investments in companies under equity method is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
<b>Balance at beginning of period</b>	<b>124.5</b>	<b>131.7</b>	<b>98.6</b>
Change in consolidation scope	(13.9)	(20.4)	(8.5)
Investments made during the year	219.6	21.7	36.1
Equity in income	0.6	37.4	16.4
Dividends received during the period, reduction in share capital	(10.0)	(48.2)	(6.9)
Change in other comprehensive income of entities under the equity method		1.5	(4.6)
Change in exchange rate and other	5.0	0.8	0.6
<b>Balance at end of period</b>	<b>325.8</b>	<b>124.5</b>	<b>131.7</b>

The changes in consolidation scope in 2013 correspond for US\$13.9 million to the disposal of the remaining 10.14% shares we held in Spectrum ASA (see note 2). The adoption of IFRS11 had no impact on the consolidation perimeter.

In 2012, it corresponded for US\$20.4 million to the disposal of 18.82% of our investment in Spectrum. In 2011, it corresponded for US\$8.5 million to the disposal of 32.6% of our investment in Cybernetix (see note 2).

The investments in 2013 correspond for US\$217 million to 40% investment in Seabed Geosolutions BV (see note 2). The investments in 2012 corresponded for US\$21.7 million to our contribution, in our joint venture PTSC CGGV Geophysical Survey limited (see note 2). The investments in 2011 corresponded for US\$26.5 million to 29% investment in Spectrum ASA, and for the remaining amount to an increase in the capital of Oceanic Seismic Vessels AS (US\$4.8 million), of PT Elnusa-CGGVeritas Seismic (US\$4.8 million) and of CGG Eidesvik Ship Management AS (see note 2).

The line Equity in income includes a US\$9.1 million contribution from Argas and a US\$(21.8) million from Seabed Geosolutions BV in 2013. This line included a US\$27.2 million and a US\$13.8 million contribution from Argas respectively in 2012 and 2011.

**Table of Contents****NOTE 9 PROPERTY, PLANT AND EQUIPMENT**

Analysis of Property, plant and equipment is as follows:

	December 31,						
	2013			2012			2011
	Gross	Accumulated depreciation	Net	Gross	Accumulated depreciation	Net	(restated) Net
	(amounts in millions of US\$)						
Land	21.1		21.1	20.2		20.2	19.4
Buildings	276.8	(110.1)	166.7	243.1	(92.2)	150.9	153.2
Machinery & equipment	1,590.4	(912.8)	677.6	1,281.0	(722.0)	559.0	578.5
Vehicles & vessels	975.0	(400.6)	574.4	599.7	(245.8)	353.9	341.6
Other tangible assets	140.3	(99.8)	40.5	110.6	(74.8)	35.8	34.7
Assets under constructions	77.5		77.5	39.7		39.7	55.8
<b>Total Property, plant and equipment</b>	<b>3,081.1</b>	<b>(1,523.3)</b>	<b>1,557.8</b>	<b>2,294.3</b>	<b>(1,134.8)</b>	<b>1,159.5</b>	<b>1,183.2</b>

Land, buildings and geophysical equipment recorded under finance leases are as follows:

	December 31,						
	2013			2012			2011
	Gross	Accumulated depreciation	Net	Gross	Accumulated depreciation	Net	(restated) Net
	(amounts in millions of US\$)						
Geophysical Equipment and vessels under finance leases	117.4	(92.5)	24.9	118.1	(77.6)	40.5	59.4
Land and buildings under finance leases	106.3	(10.0)	96.3	101.8	(5.6)	96.2	98.0
Other tangible assets under finance leases	3.7	(3.7)		3.7	(3.4)	0.3	1.6
<b>Total Property, plant and equipment under finance leases</b>	<b>227.4</b>	<b>(106.2)</b>	<b>121.2</b>	<b>223.6</b>	<b>(86.6)</b>	<b>137.0</b>	<b>159.0</b>

Depreciation of assets recorded under finance leases is determined on the same basis as owned-assets and is included in depreciation expense.

The variation of the period for tangible assets is as follows:

	December 31,		
	2013	2012	2011
	(In millions of US dollars)		
<b>Balance at beginning of period</b>	<b>1,159.5</b>	<b>1,183.2</b>	<b>1,045.6</b>
Acquisitions	289.5	339.1	336.6
Acquisitions through finance lease		2.8	29.1
Depreciation	(482.2)	(287.5)	(284.6)
Disposals	(16.1)	(16.4)	(33.6)
Change in exchange rates	6.4	4.4	(16.2)
Change in consolidation scope	624.1	2.0	160.1
Reclassification of tangible assets as Assets held for sale	(20.8)	(57.5)	(41.3)

Other	(2.6)	(10.6)	(12.5)
<b>Balance at end of period</b>	<b>1,557.8</b>	<b>1,159.5</b>	<b>1,183.2</b>

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In 2013, the depreciation line item includes US\$105 million of non-recurring impairment of seismic vessels and equipments (see notes 19 & 21).

Disposals of assets mainly relate to scrap of marine equipment.

The change of consolidation scope relates to the acquisition of the Fugro Geoscience Division. The change of consolidation scope related to the acquisition of the company Exploration Vessel Resources II, owner of the seismic vessel *Geowave Voyager* (see note 2) in 2011.

In 2013, assets have been reclassified as *Assets held for sale* for US\$20.8 million in relation to the framework agreement signed with TAQA (see note 2). In 2012, tangible assets that have been contributed to the joint venture Seabed Geosolutions BV, were classified as *Assets held for sale* for an amount of US\$57.5 million.

In 2011, acquisitions through finance lease related to seismic equipment for the new seismic vessels *Pacific Finder* and *Oceanic Sirius*.

Reconciliation of acquisitions with the consolidated statements of cash flows is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Acquisitions of tangible assets (excluding finance lease)	289.5	339.1	336.6
Development costs capitalized see notes 10 and 20	56.9	29.1	23.0
Additions in other intangible assets (excluding non-exclusive surveys) see note 10	8.7	2.5	8.1
Variance of fixed assets suppliers	(7.9)	(1.9)	(2.1)
<b>Total purchases of tangible and intangible assets according to cash flow statement</b>	<b>347.2</b>	<b>368.8</b>	<b>365.6</b>

**Repairs and maintenance expenses**

Repairs and maintenance expenses included in cost of operations amount to US\$115.9 million in 2013 due to upgrades and repairs on seismic vessels. Repairs and maintenance expenses amounted to US\$114.7 million in 2012, and to US\$116.4 million in 2011.

**NOTE 10 INTANGIBLE ASSETS**

Analysis of intangible assets is as follows:

	December 31,						
	2013			2012 (restated)			2011 (restated)
	Gross	Accumulated depreciation	Net	Gross	Accumulated depreciation	Net	Net
	(amounts in millions of US\$)						
Multi-client surveys Marine	3,049.2	(2,380.9)	668.3	2,571.3	(2,097.2)	474.1	391.7
Multi-client surveys Land	867.5	(752.6)	114.9	820.8	(690.7)	130.1	135.6
Multi-client surveys Robertson	51.6	(16.8)	34.8				
Development costs capitalized	306.9	(101.6)	205.3	168.5	(72.3)	96.2	86.6
Software	89.3	(55.9)	33.4	75.3	(44.8)	30.5	28.7
Research Technology	153.5	(111.5)	42.0	154.5	(103.1)	51.4	49.4
Customer relationships	239.6	(102.3)	137.3	204.1	(71.9)	132.2	124.0
Trade names	45.2	(30.3)	14.9	33.7	(30.0)	3.7	30.0
Other intangible assets	53.6	(32.9)	20.7	44.3	(27.6)	16.7	19.1



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<b>Total intangible assets</b>	<b>4,856.4</b>	<b>(3,584.8)</b>	<b>1,271.6</b>	<b>4,072.5</b>	<b>(3,137.6)</b>	<b>934.9</b>	<b>865.1</b>
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The variation of the period for intangible assets is as follows:

Variation of the period	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
<b>Balance at beginning of period</b>	<b>934.9</b>	<b>865.1</b>	<b>963.9</b>
Increase in multi-client surveys	572.3	418.0	229.0
Development costs capitalized	56.9	29.1	23.0
Other acquisitions	8.7	2.5	8.1
Depreciation on multi-client surveys	(398.7)	(340.9)	(285.3)
Other depreciation	(90.8)	(80.5)	(59.1)
Disposals	(0.4)	(0.2)	(20.4)
Change in exchange rates	2.3	4.2	(3.5)
Change in consolidation scope	184.9	34.5	
Reclassification of intangible assets as Assets held for sale		(6.7)	
Other	1.5	9.8	9.4
<b>Balance at end of period</b>	<b>1,271.6</b>	<b>934.9</b>	<b>865.1</b>

In 2013, change in consolidation scope relates to the acquisition of the Fugro Geoscience Division (see note 2). High level of investments in multi-client survey is related to ongoing programs in Gulf of Mexico. Other depreciation line item includes US\$21.0 million of customer relationship impairment (see notes 19 and 21).

In 2012, change in consolidation scope related to the acquisition of the assets of GRC (see note 2). Other depreciation included a US\$30 million impairment loss related to the trade name Veritas. Intangible assets to be contributed to the joint venture Seabed Geosolutions BV were classified in 2012 as Assets held for sale for an amount of US\$6.7 million.

Disposals in 2011 mainly related to the sale of our 2D multi-client marine library to Spectrum ASA (see note 2).

Reconciliation of acquisitions with the consolidated statements of cash flows and capital expenditures in note 19 is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Increase in multi-client surveys	572.3	418.0	229.0
Multi-client depreciations & amortizations capitalized	(92.9)	(54.2)	(25.8)
<b>Investment in multi-client surveys according to cash flow statement</b>	<b>479.4</b>	<b>363.8</b>	<b>203.2</b>

**Table of Contents****NOTE 11 GOODWILL**

Analysis of goodwill is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
<b>Variation of the period</b>			
Balance at beginning of period	2,415.5	2,688.2	2,688.5
Additions	721.6	23.0	1.8
Impairment	(640.0)		
Reclassification to Assets held for sale (note 5)	(13.0)	(300.0)	
Adjustments			
Change in exchange rates	(0.9)	4.3	(2.1)
Other			
<b>Balance at end of period</b>	<b>2,483.2</b>	<b>2,415.5</b>	<b>2,688.2</b>

The additions correspond to the goodwill arising from the purchase of the Fugro's Geoscience Division in 2013, the purchase of the Geophysical Research Corporation, LLC ( "GRC" ) in 2012, and from the purchase of Petrodata Consulting LLC in 2011 (see note 2).

In 2013, we recognized an impairment of US\$640 million resulting from the annual impairment test, which we booked under the line "Other revenues (expenses) net" in our statement of operations (see note 21).

**Impairment review**

Group management undertakes at least an annual impairment test covering goodwill, intangible assets and indefinite lived assets allocated to the cash generating units to consider whether impairment is required.

The recoverable value retained by the Group corresponds to the value in use of the assets, cash generating units or group of cash generating units, defined as the discounted expected cash flows. In certain occasions, the recoverable value retained is the fair value less costs of disposal, in which case defined by reference to an active market.

Following Fugro Geoscience Division acquisition in January 2013, and the new organization of the Group with three Divisions, Acquisition, GGR and Equipment, the cash generating units have been redefined in a consistent way with the new reportable segments. This has notably been required by the split of some of the previous cash generating units, like Marine, with multi-client activity in one segment and acquisition activity in one other segment. Furthermore, the new geoscience activities acquired from Fugro required the identification of new cash generating units.

As a consequence, there are now 8 cash generating units. A cash generating unit is a homogeneous group of assets that generates cash inflows that are largely independent of the cash inflows from other groups of assets.

The following table provides the split of the total Group goodwill per segment:

	Goodwill		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Acquisition	782	1,344	1,644
GGR	1,493	901	901
Equipment	208	170	143

**Total**

**2,483**

**2,415**

**2,688**

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### Key assumptions used in the determination of recoverable value

In determining the asset recoverability through value in use, management makes estimates, judgments and assumptions on uncertain matters. For each cash generating unit, the value in use are determined based on economic assumptions and forecasted operating conditions as follows:

expected cash flows estimated in the 2014 budget and 2015-2016 outlook as presented to the Board of Directors on February 26, 2014,

use of normative cash flows beyond Year 3,

productivity rate between 2% and 2.5% regarding the activity,

discount rates we consider reflecting the respective sector weighted average cost of capital (WACC):

10% for the Equipment segment (corresponding to a pre-tax rate of 14.5%);

8.5% for the cash generating units within the Acquisition segment (corresponding to a pre-tax rate from 10.3% up to 15.9%);  
and

9.5% for the cash generating units within the GGR segment (corresponding to a pre-tax rate from 12.7% up to 13.3%).

No impairment loss was recorded for the year ended December 31, 2012 and December 31, 2011.

As a consequence of the 25% fleet downsizing plan of our fleet and of the change of market outlook, the impairment test of our Marine cash generating unit as of December 31, 2013 triggered a goodwill impairment for US\$582 million. Besides, given more overall difficult Land market conditions, we recognized in 2013 an impairment of goodwill for US\$58 million on our Land cash generating unit. Overall, the Acquisition segment goodwill was impaired by US\$640 million in 2013.

### Sensitivity to changes in assumptions

Changing the assumptions selected by Group management, in particular the discount rate and the normative cash flows (based on EBITDAS) could significantly affect the evaluation of the value in use of our cash generating units and, hence, Group's impairment result.

The following changes to the assumptions used in the impairment test lead to the following:

	Goodwill	Excess of the expected future Discounted cash flows over the carrying value of assets including goodwill	Sensitivity on normative cash flows		Sensitivity on discount rate (after tax)	
			Decrease by 10%	Increase by 10%	Decrease by 0.25%	Increase by 0.25%
(In millions of US dollars)						
Acquisition	782	57	(185)	+185	+89	(82)

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GGR	1,493	325	(292)	+292	+130	(121)
Equipment	208	1,601	(209)	+209	+84	(79)
<b>Total</b>	<b>2,483</b>					

Changes to the assumptions used in the impairment test for which the recoverable value equals to the carrying value are as follows:

	Sensitivity on normative cash flows	Sensitivity on discount rate (after tax)
Acquisition	(3.1)%	+0.2%
GGR	(11.1)%	+0.7%
Equipment		Not relevant

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**Table of Contents****NOTE 12 OTHER CURRENT LIABILITIES**

The analysis of other current liabilities is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
(In millions of US dollars)			
Value added tax and other taxes payable	89.1	75.6	64.3
Deferred revenue	109.3	139.3	145.4
Fair value of financial instruments (see note 14)	1.0	0.8	9.5
Other liabilities	84.5	84.5	53.1
<b>Other current liabilities</b>	<b>283.9</b>	<b>300.2</b>	<b>272.3</b>

Other liabilities include an earn-out related to the assets of Geophysical Research Corporation, LLC (see note 2) for US\$9.5 million and US\$17 million as of December 31, 2013 and 2012 respectively.

**NOTE 13 FINANCIAL DEBT**

Analysis of financial debt by type is as follows:

	December 31,						
	2013		2012 (restated)			2011 (restated)	
	Current	Non-current	Total	Current	Non-current	Total	
(amounts in millions of US\$)							
High yield bonds		1,234.9	1,234.9		1,349.0	1,349.0	1,342.7
Convertible bonds		836.6	836.6		763.5	763.5	363.0
Bank loans	199.5	157.3	356.8	14.7	26.2	40.9	56.9
Other loans	18.8	155.1	173.9				
Finance lease debt	9.0	112.2	121.2	16.4	114.5	130.9	157.3
<b>Sub-total</b>	<b>227.3</b>	<b>2,496.1</b>	<b>2,723.4</b>	<b>31.1</b>	<b>2,253.2</b>	<b>2,284.3</b>	<b>1,919.9</b>
Accrued interests	19.7		19.7	16.7		16.7	16.2
<b>Financial debt</b>	<b>247.0</b>	<b>2,496.1</b>	<b>2,743.1</b>	<b>47.8</b>	<b>2,253.2</b>	<b>2,301.0</b>	<b>1,936.1</b>
Bank overdrafts	4.5		4.5	4.2		4.2	6.0
<b>Total</b>			<b>2,747.6</b>			<b>2,305.2</b>	<b>1,942.1</b>

Analysis of financial debt by currency is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
(amounts in millions of US\$)			
US dollar	1,493.1	1,431.3	1,464.5

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Euro	1,230.3	853.0	455.4
Other currencies			
<b>Total</b>	<b>2,723.4</b>	<b>2,284.3</b>	<b>1,919.9</b>

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Analysis of financial debt by interest rate is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(amounts in millions of US\$)		
Variable rates (average effective rate December 31, 2013: 2.20%, 2012: 2.84%, 2011: 2.73%)	168.2	41.4	74.0
Fixed rates (average effective rate December 31, 2013: 7.20%, 2012: 6.27%, 2011: 8.16%)	2,555.2	2,242.9	1,845.9
<b>Total</b>	<b>2,723.4</b>	<b>2,284.3</b>	<b>1,919.9</b>

Variable interest rates are generally based on inter-bank offered rates of the related currency.

Analysis of financial debt by financing sources as of December 31, 2013 is as follows:

	Issuing date	Maturity	Nominal amount Dec 31, 2013 (in millions of currency)	Net balance Dec 31, 2013 (in millions of US\$)	Interest rate	Last amendment
High yield bond 2016	2009	2016	US\$ 350	217.8	9 1/2%	
High yield bond 2017	2007	2017	US\$ 400	396.0	7 3/4%	
High yield bond 2021	2011	2021	US\$ 650	621.1	6 1/2%	
<b>Sub-total High yield bonds</b>				<b>1,234.9</b>		
Convertible bond 2016	2011	2016	360	436.9	1 3/4%	
Convertible bond 2019	2012	2019	360	399.7	1 1/4%	
<b>Sub-total Convertible bonds</b>				<b>836.6</b>		
US\$200 million term loan and revolving facilities	2013	2018	US\$ 200	186.5	4 2/5%	
Other bank loans				170.3		
<b>Sub-total bank loans</b>				<b>356.8</b>		
Other loans				173.9		
<b>Sub-total other loans</b>				<b>173.9</b>		
Real estate finance lease	2010	2015	75	88.4		
Other finance lease				32.8		
<b>Sub-total Finance lease debt</b>				<b>121.2</b>		
<b>Total financial debt</b>				<b>2,723.4</b>		

Analysis of authorized credit lines as of December 31, 2013 is as follows:

Date	Maturity	Authorized amount	Mobilized amount	Available amount	Used amount	Last amendment
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			(in millions of US\$)	(in millions of US\$)	(in millions of US\$)	(in millions of US\$)
US Revolving facility	2013	2018	165.0		165.0	
French Revolving facility	2013	2016	325.0		173.0	152.0
Other Revolving facility	2013	2018	100.0		5.0	95.0
<b>Total</b>			<b>590.0</b>		<b>343.0</b>	<b>247.0</b>
Short-term credit lines (bank overdrafts)			12.5		8.0	4.5

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Out of the fixed rate credit lines, no significant credit line is expected to be renewed within the next twelve months (see note 18).

Based upon the current level of operations and our near-to mid-term debt repayment schedule, we believe that cash flow from operations, available cash and cash equivalents, together with liquidity available under our new US\$165 million US revolving facility and our new US\$325 million French revolving facility will be adequate to meet our liquidity needs for the next twelve months.

The impact of hedging instruments has not been considered in the above tables.

All financial covenants were complied with at December 31, 2013.

### **High Yield bonds**

Since 2007, CGG SA issued several bonds in US dollar, with maturities 2016, 2017 and 2021.

These notes are listed on the Euro MTF market of the Luxembourg Stock Exchange; and are guaranteed on a senior basis by certain of our subsidiaries.

Those bonds include certain restrictive covenants, including limitations on additional indebtedness subscriptions, pledges arrangements, sales and lease-back transactions, issuance and sale of equity instruments and dividends payments by certain subsidiaries of the Group. In addition, the Company is required to maintain a ratio of EBITDAS to gross interest expenses equal to or greater than 3.

EBITDAS is defined as earnings before interest, tax, depreciation, amortization net of amortization costs capitalized to multi-client surveys, and share-based compensation cost. Share-based compensation includes both stock options and shares issued under our performance share allocation plans. For the determination of ratios included in the covenants, EBITDAS is before non-recurring items.

All those financial covenants were complied with at December 31, 2013, 2012 and 2011.

#### ***High Yield bonds (US\$350 million, 9 1/2% Senior Notes, maturity 2016)***

On August 21, 2013, we redeemed US\$125 million aggregate principal amount of our US\$350 million 9 1/2% Senior Notes due 2016 at a price of 104.75% plus accrued interest. This redemption was partially financed through the US\$200 million term loan and revolving facilities described below. Accelerated amortization of deferred expenditures and penalties for early repayment were recorded for US\$4.3 million and US\$5.9 million, respectively.

On June 9, 2009, we issued US\$350 million principal amount of 9 1/2% Senior Notes due 2016. The Senior Notes were issued at a price of 97.0% of their principal amount, resulting in a yield of 10 1/8%. The Senior Notes will mature on May 15, 2016.

#### ***High Yield bonds (US\$400 million, 7 3/4% Senior Notes, maturity 2017)***

On February 9, 2007, we issued US\$400 million of 7 3/4% Senior Notes due 2017. We used the net proceeds from the notes to repay one part of US\$700 million outstanding under the bridge loan facility used to finance Veritas acquisition.

#### ***High Yield bonds (US\$650 million, 6 1/2% Senior Notes, maturity 2021)***

On May 31, 2011, we issued US\$650 million principal amount of 6 1/2% Senior Notes due June 1, 2021. The Senior Notes were issued at a price of 96.45% of their principal amount, resulting in a yield of 7%. We used the net proceeds of the issuance to redeem the remainder of our US\$530 million 7 1/2% Senior Notes due May 2015 and to repay in full the US\$508 million outstanding under our term loan B facility.

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**Convertible bonds*****Convertible bonds ( 360 million, 1<sup>3</sup>/<sub>4</sub>% Senior Notes, maturity 2016)***

On January 27, 2011, we issued 12,949,640 bonds convertible into and/or exchangeable for new or existing shares of our company to be redeemed on January 1, 2016 for a total nominal amount of 360 million. We used the net proceeds of the issuance to partially redeem our US\$530 million 7<sup>1</sup>/<sub>2</sub>% Senior Notes due May 2015, allowing us to reduce our cash interest expense.

The bonds' nominal value was set at 27.80 per bond, representing an issue premium of 25% of the CGG's reference share price on the regulated market of NYSE Euronext in Paris. The bonds bear interest at a rate of 1<sup>3</sup>/<sub>4</sub>% payable semi-annually in arrears on January 1 and July 1 of each year. The bonds entitle the holders to receive new and/or existing CGG shares at the ratio of one share per one bond, subject to adjustments. Under certain conditions, the bonds may be redeemed prior to maturity at our option.

As of January 27, 2011, the financial liability component was US\$364 million ( 266 million) and the equity component was US\$121 million ( 89 million), net of issuing fees. The fair value of the financial liability was assessed using a 8.15% interest rate.

***Convertible bonds ( 360 million, 1<sup>1</sup>/<sub>4</sub>% Senior Notes, maturity 2019)***

On November 20, 2012, we issued 11,200,995 bonds convertible into and/or exchangeable for new or existing shares of our company to be redeemed on January 1, 2019 for a total nominal amount of 360 million. We used the net proceeds of the issuance to finance a portion of the 1.2 billion acquisition price for Fugro's Geoscience.

The bonds' nominal value was set at 32.14 per bond, representing an issue premium of 40% of the CGG's reference share price on the regulated market of NYSE Euronext in Paris. The bonds bear interest at a rate of 1<sup>1</sup>/<sub>4</sub>% payable semi-annually in arrears on January 1 and July 1 of each year. The bonds entitle the holders to receive new and/or existing CGG shares at the ratio of one share per one bond, subject to adjustments. Under certain conditions, the bonds may be redeemed prior to maturity at our option.

As of November 20, 2012, the financial liability component was US\$359 million ( 277 million) and the equity component was US\$98 million ( 75 million), net of issuing fees. The fair value of the financial liability was assessed using a 5.47% interest rate.

**Bank loans and credit facilities**

At December 31, 2013, US\$365.9 million of bank loans amounting to US\$530.7 million were secured by tangible assets and receivables.

***US\$165 million Revolving Credit Agreement (US revolving facility)***

On July 15, 2013, we entered into a new US revolving credit facility of up to US\$165 million with a 5-year maturity. This facility was undrawn as of December 31, 2013. Pursuant to this agreement, the Group is required to adhere to certain financial covenants defined as follows:

a maximum ratio of total net financial debt to EBITDA of 3.00:1 for each rolling 12-month period tested at the end of each quarter between September 30, 2013 and June 30, 2018;

and a minimum ratio of EBITDA to total interest costs of 4.00:1 for each rolling 12-month period tested at the end of each quarter between September 30, 2013 and June 30, 2018.

All those financial covenants were complied with at December 31, 2013.

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***Term Loan B and US Revolving Facilities***

On July 18, 2013, we terminated our US revolving facility agreement.

On December 11, 2012, we obtained consent to the acquisition of Fugro Geoscience Division from the lenders under the US revolving credit facility. This amendment extended flexibility under certain covenants to permit the establishment of the joint venture Seabed Geosolutions BV, provide guarantees and incur indebtedness in connection with the transaction.

On December 15, 2011, we amended our US senior facility agreement. This amendment extended the maturity of US\$79 million out of the total US\$140 million outstanding by two years, from January 2012 to January 2014. In consideration of such amendments, covenants have been re-defined as follows:

a maximum ratio of total net financial debt to EBITDAS (2.50:1 for any relevant period expiring in the rolling 12-month period ending December 31, 2012 and 2013).

and a minimum ratio of EBITDAS to total interest costs (3.00:1 for any relevant period expiring in the rolling 12-month periods ending December 31, 2012 and 2013).

On June 2, 2011, we repaid in full the US\$508 million outstanding under our Term Loan B facility with the proceeds of our issuance of senior bonds due 2021 described above.

On July 15, 2010, we amended our US senior facilities agreement. This amendment extended the maturity of US\$348 million out of the total US\$515 million outstanding as of June 30, 2010 from January 2014 to January 2016 and increased the Company's headroom under its financial covenants. In consideration of such amendment, the applicable margin for all borrowings under the US senior facilities increased by 1.0% for the amounts whose maturity was extended. The tranche whose maturity was extended to 2016 would have its maturity accelerate to February 2015 if our Senior Notes due May 2015 were not refinanced by February 2015.

On May 21 and 27, 2009, we amended our US senior facilities agreement and our French revolving facility agreement, respectively. These amendments, in line with our conservative financial policy, were aimed mainly at increasing the Company's headroom under its financial covenants. In consideration of such amendments, the applicable margin for all borrowings under the US senior facilities and French revolving facility increased by 1.0% and covenants have been re-defined.

A first amendment to the credit agreements and the French revolver credit agreement was signed on December 12, 2008. Such amendments gave the Group a larger flexibility with respect to (i) the acquisition of companies through a tender offer process, (ii) share buyback and (iii) recapitalization of subsidiaries that are not Guarantors under the credit agreements.

On January 12, 2007, the Group entered into a US\$1.140 billion senior secured credit agreement with Credit Suisse, as administrative agent and collateral agent, and the lenders party thereto, pursuant to which credit agreement the Group borrowed a US\$1.0 billion senior secured Term Loan B and obtained a US\$140 million senior secured US revolving facility (which revolving facility includes letter of credit and swingline subfacilities). We repaid US\$100 million on June 29, 2007 of the Term Loan B early.

The obligations of CGG Holding (U.S.) Inc. under the senior facilities are guaranteed by CGG SA and certain subsidiaries including the former Veritas group subsidiaries. Shares of CGG Holding (U.S.) Inc. and of certain of its first-tier subsidiaries are pledged as well as those of other first-tier subsidiaries of CGG SA. In addition, certain guarantors have provided first-priority security interests in certain of their respective tangible and intangible assets, including (without limitation) certain vessels, real property, mineral rights, deposit accounts and intellectual property. In the case of certain of subsidiaries (most notably CGG Holding (U.S.) Inc. and certain US and Canadian subsidiaries), the collateral may comprise substantially all of their respective assets.

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Pursuant to this agreement, the Group was required to adhere to certain financial covenants. All financial covenants, calculated on a quarterly basis, were complied with at December 31, 2012. They were also complied with at December 31, 2011.

### ***French revolving facilities***

#### ***US\$325 million Revolving Credit Agreement (French revolving facility)***

On July 31, 2013, we entered into a new French revolving credit facility of up to US\$325 million with a 3-year maturity with two extension options of one year each. 110 million was drawn as of December 31, 2013.

Pursuant to this agreement, the Group is required to adhere to certain financial covenants defined as follows:

a maximum ratio of total net financial debt to EBITDA of 3.00:1 for each rolling 12-month period tested at the end of each quarter between September 30, 2013 and June 30, 2016;

and a minimum ratio of EBITDA to total interest costs of 4.00:1 for each rolling 12-month period tested at the end of each quarter between September 30, 2013 and June 30, 2016.

All those financial covenants were complied with at December 31, 2013.

#### ***US\$200 million Revolving Credit Agreement (French revolving facility)***

On July 18, 2013, we terminated our French revolving facility agreement.

In 2013, 85 million from our French revolving facility were drawn and fully repaid.

During the year 2012, 30 million and US\$40 million were drawn and fully repaid respectively on June and November 2012.

On December 21, 2012, we amended the French revolving facility to improve flexibility under certain non-financial covenants and to obtain consent to the acquisition of Fugro's Geoscience Division from the lenders under the French revolving facility. As amended, the amount of permitted Net capital expenditures is increased to the greater of US\$750 million and 50% of EBITDA.

On December 15, 2011, we amended our French revolving facility agreement. This amendment, in line with our conservative financial policy, was aimed mainly at increasing the Company's headroom under its financial covenants. In consideration of such amendments, covenants have been re-defined as follows: Aggregate amount of Net Capital Expenditures made by the Group in any fiscal year shall not exceed the greater of US\$600 million and 50% of EBITDA for such fiscal year. Net Capital Expenditures shall mean Capital Expenditures minus Multi-client Prefunding Sales.

On November 4, 2010, we amended this facility, in order to align covenant levels with our amended senior US facilities and extend the maturity by two years, from February 2012 to February 2014. Total Leverage Ratio covenant levels increased from 2.25 to 2.75 in 2010 declining thereafter to 2.0 in 2014; and EBITDAs to total interest cost covenant levels decreased from 4.00 to 3.50 in 2010 increasing thereafter to 4.50 in 2014. In consideration of the amendment, interest rates increased from Libor + 300 bps (initially) to Libor + 325 bps, and will then be adjusted based on the CGG corporate ratings.

On May 21 and 27, 2009, and December 2008, we amended our French revolving facility agreement as described in the above paragraphs.

On February 7, 2007, CGG SA entered into a US\$200 million revolving credit agreement with Natixis as administrative agent and Crédit Suisse as collateral agent. The proceeds of this revolving credit agreement may be drawn in US dollars or in euros, and may be used for the general corporate purposes of the borrower.



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***US\$200 million term loan and revolving facilities***

On July 1, 2013, we entered into a 5-year US\$200 million financing secured by vessel assets, split into two tranches of US\$100 million each, the proceeds of which were used in part to reimburse the 2013 tranche of the vendor loan granted by Fugro. We entered into an interest rate swap to fix the annual effective rate at 4.4%.

Pursuant to this agreement, the Group is required to adhere to certain financial covenants defined as follows:

a minimum of Cash plus Cash Equivalents of not less than US\$75 million, at all times;

a maximum ratio of total net financial debt to EBITDA (3.00:1.00);

and a minimum ratio of EBITDA to total interest costs (3.00:1.00).

The outstanding value at December 31, 2013, is US\$186.5 million net of issuing fees.

All those financial covenants were complied with at December 31, 2013.

***US\$25 million streamer financing***

On December 19, 2013, we signed a loan agreement for a maximum amount of US\$25 million with multiple drawings. This loan is dedicated to finance the acquisition of marine equipment to be delivered in up to twelve monthly lots over a period of one year. This loan is to be reimbursed over 5 years after the deadline for drawing and has not been drawn as of December 31, 2013.

***US\$45 million Secured Term Loan Facility***

On December 18, 2013, we amended this facility, in order to align covenant levels with our US\$200 million term loan and revolving facilities. The outstanding value at December 31, 2013, is US\$22.2 million.

On January 13, 2011, Exploration Vessel Resources II AS entered into a US\$45 million credit facility secured by a pledge over the seismic vessel *Geowave Voyager* and subject to substantially the same covenants as our US Revolving Facilities.

***US\$25 million Secured Term Loan Facility***

On April 30, 2007, Geomar concluded a credit facility of US\$25 million. The proceeds from this credit facility were used to refinance the seismic vessel *CGG Alizé*. At December 31, 2007, this facility was fully drawn. The outstanding value at December 31, 2013 is US\$1.8 million.

**Other loans**

***Vendor loan granted by Fugro***

In connection with the Fugro Geoscience Division acquisition, Fugro granted to us, on January 31, 2013, a 125 million vendor loan with a 5 year maturity bearing an interest rate of 5.5% per annum, which was increased to 225 million at the date of effective acquisition of the Airborne business.

On August 21, 2013, we repaid an amount of 112.5 million under the vendor loan to Fugro. The outstanding amount as of December 31, 2013 is 112.5 million.

**NOTE 14 FINANCIAL INSTRUMENTS**



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Because we operate internationally, we are exposed to general risks linked to operating abroad. Our major market risk exposures are changing interest rates and currency fluctuations. We do not enter into or trade financial instruments including derivative financial instruments for speculative purposes. Please also refer to Item 11 of our annual report for qualitative information.

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### **Foreign currency risk management**

We derive a substantial portion of our revenues from international sales, subjecting us to risks relating to fluctuations in currency exchange rates. Our revenues and expenses are mainly denominated in US dollars and euros, and to a significantly lesser extent, in Canadian dollars, Brazilian reais, Australian dollars, Norwegian kroner, Singapore dollars, British pounds and Ren-min-bi Yuan. Historically, a significant portion of our revenues that were invoiced in euros related to contracts that were effectively priced in US dollars, as the US dollar often serves as the reference currency when bidding for contracts to provide geophysical services.

### ***Foreign currency sensitivity analysis***

Fluctuations in the exchange rate of the US dollar against other currencies, particularly the euro, have had in the past and will have in the future a significant effect upon our results of operations, which were reported in euros for periods prior to January 1, 2012 and are reported in US dollars from that date. Since we participate in competitive bids for data acquisition contracts that are denominated in US dollars, the appreciation of the euro against the US dollar harms our competitive position against companies whose costs and expenses are denominated to a greater extent in US dollars. Our annual fixed expenses in euros are equal to approximately 500 million after hedging and as a consequence, an unfavorable variation of US\$0.1 in the average yearly exchange rate between the US dollar and the euro would reduce our operating income and our shareholders' equity by US\$50 million.

As a result of our compliance with IAS 12 Income Taxes, our results of operation are also exposed to the effect of exchange rate variations on our deferred tax amounts when the functional currency for an entity that owns an asset is not the same as the currency used for taxation purposes.

### ***Foreign forward exchange contracts***

In order to protect the Group against the reduction in the value of future foreign currency cash flows, we follow a policy of selling US dollars forward at average contract maturity dates that the Group attempts to match with future net US dollar cash flows (revenues less costs in US dollars) to be generated by firm contract commitments in its backlog generally over the ensuing six months. A similar policy, to a lesser extent, is carried out with respect to contracts denominated in British pounds, in Ren-min-bi Yuan, in Norwegian kroner, Singapore dollar and Swiss Franc. This foreign currency risk management strategy has enabled us to reduce, but not eliminate, the positive or negative effects of exchange movements with respect to these currencies.

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Details of forward exchange contracts are as follows:

	2013	December 31, 2012	2011
<b>Forward sales of US dollars against euros</b>			
Notional amount (in millions of US\$)	5.0	35.0	157.8
<i>of which forward sales qualifying as cash flow hedges</i>	5.0	35.0	157.8
<i>of which forward sales not qualifying as cash flow hedges</i>			
Weighted average maturity	11 days	22 days	57 days
Weighted average forward US\$/Euro exchange rate	1.3711	1.2840	1.3492
<b>Forward sales of US dollars against British pounds</b>			
Notional amount (in millions of US\$)	11.4	3.0	17.2
<i>of which forward sales qualifying as cash flow hedges</i>	11.4	3.0	17.2
<i>of which forward sales not qualifying as cash flow hedges</i>			
Weighted average maturity	21 days	20 days	41 days
Weighted average forward US\$/£ exchange rate	1.5919	1.6022	1.5635
<b>Forward sales of US dollars against Ren-min-bi Yuan</b>			
Notional amount (in millions of US\$)	5.4	2.0	21.5
<i>of which forward sales qualifying as cash flow hedges</i>	5.4	2.0	21.5
<i>of which forward sales not qualifying as cash flow hedges</i>			
Weighted average maturity	42 days	29 days	20 days
Weighted average forward US\$/RMB exchange rate	0.1646	0.1595	0.1576
<b>Forward sales of US dollars against Norwegian kroner</b>			
Notional amount (in millions of US\$)		15.6	
<i>of which forward sales qualifying as cash flow hedges</i>		15.6	
<i>of which forward sales not qualifying as cash flow hedges</i>			
Weighted average maturity		21 days	
Weighted average forward US\$/NOK exchange rate		5.6505	
<b>Forward sales of US dollars against Singapore dollar</b>			
Notional amount (in millions of US\$)	7.9	8.2	2.3
<i>of which forward sales qualifying as cash flow hedges</i>	7.9	8.2	2.3
<i>of which forward sales not qualifying as cash flow hedges</i>			
Weighted average maturity	35 days	38 days	50 days
Weighted average forward US\$/SGD exchange rate	0.7936	0.8199	0.7735
<b>Forward sales of US dollars against Swiss Franc</b>			
Notional amount (in millions of US\$)		1.1	3.8
<i>of which forward sales qualifying as cash flow hedges</i>		1.1	3.8
<i>of which forward sales not qualifying as cash flow hedges</i>			
Weighted average maturity		53 days	41 days
Weighted average forward US\$/CHF exchange rate		0.9120	0.8713
<b>Forward sales of US dollars against Australian Dollar</b>			
Notional amount (in millions of US\$)	1.8		
<i>of which forward sales qualifying as cash flow hedges</i>	1.8		
<i>of which forward sales not qualifying as cash flow hedges</i>			
Weighted average maturity	24 days		
Weighted average forward US\$/AUD exchange rate	0.9085		

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Effects of forward exchange contracts on financial statements are as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Carrying value of forward exchange contracts at fair value (see notes 5 and 12)	0.8	2.2	(6.0)
Gains (losses) recognized in profit and loss (see note 21)	1.9	0.8	4.8
Gains (losses) recognized directly in equity		3.7	(4.4)

Net gains (loss) on cash flow hedges in companies consolidated under the equity method are not included in the above table. Net gain (loss) recognized in profit and loss for these entities are included in the line item *Equity in income of investees* in the Consolidated Statement of Operations. Gains (losses) recognized directly in equity are presented in the line item *Other comprehensive income (loss) for the period, net of taxes, in companies consolidated under the equity method* in the consolidated statements of comprehensive income (loss).

**Call contracts**

There were no call contracts outstanding as of December 31, 2013, 2012 and 2011.

**Interest rate risk management**

Our policy is to manage the interest rates through maximization of the proportion of fixed rate debt. Today, our exposure to interest rate fluctuations is reduced to the extent that 94% of our financial debt at December 31, 2013 consists of debts bearing fixed rates such as High Yield bonds maturing in 2016, 2017, 2021 convertible bonds maturing in 2016 and 2019, some capital leases and bank credit loans. We may use interest rate swaps to adjust interest rate exposure when appropriate based upon market conditions.

**Interest rate sensitivity analysis**

Our sources of liquidity include credit facilities and debt securities which are or may be subject to variable interest rates. As a result, our interest expenses could increase if short-term interests rates increased. The sensitivity analysis is based on a net exposure of US\$160 million. Our investments and other financial assets earned interest at an average rate of 0.8%. Each 80 basis point increase in this rate would increase our interest revenue by US\$1.3 million per year and each 80 basis point decrease in this rate would reduce our interest revenue by US\$1.3 million per year.

**Interest rate cap contracts**

There was no interest rate cap agreement as of December 31, 2013.

**Credit risk management**

We seek to minimize our counter-party risk by entering into hedging contracts only with highly rated commercial banks or financial institutions and by distributing the transactions among the selected institutions. Although our credit risk is the replacement cost at the then-estimated fair value of the instrument, we believe that the risk of incurring losses is remote and those losses, if any, would not be material.

Our receivables and investments do not represent a significant concentration of credit risk due to the wide variety of customers and markets in which we sell our services and products and our presence in many geographic areas. In 2013, the Group's two most significant customers accounted 5.1% and 3.9% of the Group's consolidated revenues compared with 7.1% and 5.8% in 2012 and 13.0% and 3.0% in 2011.

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### Liquidity risk management

Our principal capital needs are for the funding of ongoing operations, capital expenditures (particularly repairs and improvements to our seismic vessels), investments in our multi-client data library and acquisitions.

We intend to fund ongoing operations and debt service requirements through cash generated by operations. Our ability to make scheduled payments of principal, or to pay the interest or additional interest, if any, on, or to refinance our indebtedness, or to fund planned capital expenditures will depend on our future performance, which, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. Based upon the current level of operations, we believe that cash flow from operations, available cash and cash equivalents, together with borrowings available under the US revolving facility (US\$165 million) and the French revolving facility (US\$325 million) will be adequate to meet our future liquidity needs for the next twelve months (see note 13).

### Financial instruments by categories in the balance sheet

The impact and the breakdown of the Group's financial instruments in the balance sheet as of December 31, 2013 are as follows:

	Fair value hierarchy	Carrying Amount	Fair Value	December 31, 2013			
				Fair value in income statement	Available-for-sale assets	Loans, receivables	Debts at amortized cost
(In millions of US dollars)							
Non-consolidated investments	Level 3	8.5	8.5		8.5		
Financial and non-current assets	Level 3	39.3	39.3			39.3	
Notes receivables	Level 3	987.4	987.4			987.4	
Financial and current assets	Level 2	1.8	1.8				1.8
Cash equivalents	Level 2	90.2	90.2	90.2			
Cash	Level 2	439.9	439.9	439.9			
<b>Total assets</b>		<b>1,567.1</b>	<b>1,567.1</b>	<b>530.1</b>	<b>8.5</b>	<b>1,026.7</b>	<b>1.8</b>
Financial debts (note 13)	Level 2	2,723.4	3,367.8				2,723.4
Notes payables	Level 3	557.6	557.6			557.6	
Financial and current liabilities	Level 2	1.0	1.0				1.0
<b>Total liabilities</b>		<b>3,282.0</b>	<b>3,926.4</b>			<b>557.6</b>	<b>2,723.4</b>

*There was no change of fair value hierarchy in 2013 compared to previous years.*

### Fair value information

The carrying amounts and fair values of the Group's financial instruments are as follows:

	2013		December 31, 2012 (restated)		2011 (restated)	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Cash and cash equivalents	530.0	530.0	1,520.2	1,520.2	531.4	531.4
Bank overdraft facilities	4.5	4.5	4.2	4.2	6.0	6.0
Financial debts	2,723.4	3,367.8	2,284.3	3,400.6	1,919.9	2,840.6
Forward currency exchange contracts	0.8	0.8	2.2	2.2	(6.0)	(6.0)



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The Group considers the fair value of financial assets and liabilities recorded at amortized cost equals their carrying value, except for financial debts.

For bank loans with fixed interest rates, the fair values have been estimated using discounted cash flow (interest payments and reimbursements) analysis based on the Group's incremental borrowing rates for similar types of borrowing arrangements. At December 31, 2013, the rate of 6.8% (source: Thomson Reuters) is used to determine the fair value of high yield bonds, the rate of 4.3% (source: BNP) is used to determine the fair value of convertible bond, the rate of 5.0% (source: Thomson Reuters) is used to determine the fair value of the US\$200 million term loan and revolving facilities and the rate of 5.75% (source: CA-CIB) is used to determine the fair value of the Vendor loan. For variable-rate bank loans, vendor equipment financing and the shareholder loans, fair values approximate carrying values.

The market value of forward sales is assessed based on models commonly used by market participants to price such instruments, using forward rates, available on the financial markets for similar maturities.

### **NOTE 15 COMMON STOCK AND STOCK OPTION PLANS**

The Company's share capital at December 31, 2013 consisted of 176,890,866 shares, each with a nominal value of 0.40; 176,392,225 as of December 31, 2012 and 151,861,932 as of December 31, 2011.

CGG seeks to continuously enhance its financial structure through the equilibrium between its financial indebtedness and its equity as presented in our consolidated balance sheet. The Group manages its financial structure and operates the adjustments deemed necessary considering the evolution of the financial environment. The managing objectives, policies and procedures have remained unchanged for many reporting periods. Excluding the legal requirements applicable in France, CGG SA is not bound to any requirement in terms of minimal amount of equity.

#### **Rights and privileges related to ordinary shares**

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

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

Retained earnings available for distribution amounted to 2,313.6 million (US\$3,190.8 million) at December 31, 2013.

We did not pay any dividend during the years ended December 31, 2013, 2012 and 2011.

#### **Issued shares**

In 2013, CGG SA issued 498,641 fully paid shares related to the following operations:

122,561 ordinary shares corresponding to allocated stock options;

376,080 ordinary shares corresponding to allocated performance 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 of the Group.

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Options granted under the May 2006 option plan, which expire eight years from the date of grant, are vested by one fourth each year from May 2006 and could not generally be exercised before May 2010. Moreover, for options to subscribe for 1,000 shares or more, the shares resulting from the exercise of those options could not be sold before May, 2010. Out of the 1,012,500 options granted in May 2006, 680,000 were granted to the executive managers of the Group.

Options granted under the March 2007 option plan, which expire eight years from the date of grant, are vested by one third each year from March 2007 and, once vested, can be exercised at any time. For the French tax residents, the shares resulting from the exercise of those options may not be sold before March 24, 2011. Out of the 1,308,750 options granted in March 2007, 675,000 were granted to the Executive Officers.

Options granted under the March 2008 option plan, which expires eight years from the date of grant, are vested by one third each year from March 2008 and, once vested, can be exercised at any time. For the French tax residents, the shares resulting from the exercise of those options may not be sold before March 14, 2012. Out of the 1,188,500 options granted in March 2008, 584,742 were granted to the Executive Officers.

Options granted under March 16, 2009, have an eight-year duration subject to the requirement, for all French residents, to hold the resulting shares in registered form from their purchase date until March 16, 2013, inclusive, except in limited cases listed in the plan regulations. Rights to these options vest by one-third during each of the first three years of the plan. 1,002,000 stock options were allocated to 149 beneficiaries; 200,000 stock options to the Chairman and Chief Executive Officer and 125,000 stock options to the Chief Operating Officer.

On January 6, 2010, the Board of Directors allocated 220,000 stock options to one beneficiary pursuant to a shareholders' resolution. The exercise price of the stock options is 14.71. The stock options expire on January 6, 2018. 110,000 of these stock options vest immediately, 55,000 will vest as of January 7, 2011 and 55,000 will vest as of January 7, 2012.

On March 22, 2010, the Board of Directors allocated:

1,348,150 stock options to 338 beneficiaries pursuant to a shareholders' resolution. The exercise price of the stock options is 19.44. The stock options expire on March 22, 2018. Rights to these options vest by one-third during each of the first three years of the plan;

200,000 stock options to the Chairman and Chief Executive Officer. Their exercise price is 19.44. Rights to these options vest by one-third during each of the first three years of the plan. Such vesting is subject to performance conditions based on the fulfillment of one of the following objectives:

A share price performance objective relative to the share price considering the SBF 120 index;

A share price performance objective relative to the ADS price considering the PHLX Oil Services Sector<sup>SM</sup> (OSX<sup>SM</sup>) index;  
or

A financial indicator in the form of an EBITDAS objective expressed in US dollars and related to the target for the annual variable part of compensation of the Chairman and Chief Executive Officer.

On October 21, 2010, the Board of Directors allocated 120,000 stock options to three beneficiaries pursuant to a shareholders' resolution. The exercise price of the stock options is 16.88. The plan expires on October 21, 2018. Rights to these options vest by one-third during each of the first three years of the plan.

On March 24, 2011, the Board of Directors allocated:

964,363 stock options to 364 beneficiaries pursuant to a shareholders' resolution. The exercise price of the stock options is 25.48. The stock options expire on March 24, 2019. Rights to these options vest by one-third during each of the first three years of the plan;





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66,667 stock options to the Chairman of the Board of Directors and 133,333 stock options to the Chief Executive Officer. Their exercise price is 25.48. Rights to these options vest by one-third during each of the first three years of the plan. Such vesting is subject to performance conditions based on the fulfillment of one of the following objectives:

A share price performance objective relative to the share price considering the SBF 120 index;

A share price performance objective relative to the ADS price considering the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index; or

A financial indicator in the form of an EBITDAS objective expressed in US dollars and related to the target for the annual variable part of compensation of the Chairman and to the Chief Executive Officer.

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 26, 2012, the Board of Directors allocated:

590,625 stock options to certain employees. Their exercise price is 18.77. The options vest in three batches, in June 2014 (for 50% of the options allocated), June 2015 (for 25% of the options allocated) and June 2016 (for 25% of the options allocated). The options have an eight-year duration.

420,000 stock options to the Executive Committee. Their exercise price is 18.77. The options vest in three batches, in June 2014 (for 50% of the options allocated), June 2015 (for 25% of the options allocated) and June 2016 (for 25% of the options allocated). The options have an eight-year duration. Such vesting is subject to performance conditions based on the fulfillment of the following objectives:

A share price performance objective relative to the share price considering the SBF 120 index;

A share price performance objective relative to the ADS price considering the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index;

A financial indicator in the form of an EBITDAS objective expressed in US dollars and related to the target for the annual variable part of compensation of the Executive Committee members;

A share price performance objective relative to the share price increase over the vesting period.

200,000 stock options to the Chief Executive Officer and 100,000 to each of the Corporate Officers. Their exercise price is 18.77. The options vest in three batches, in June 2014 (for 50% of the options allocated), June 2015 (for 25% of the options allocated) and June 2016 (for 25% of the options allocated). The options have an eight-year duration. Such vesting is subject to performance conditions based on the fulfillment of the following objectives:

A share price performance objective relative to the share price considering the SBF 120 index;

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A share price performance objective relative to the ADS price considering the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index;

A financial indicator in the form of an EBITDAS objective expressed in US dollars and related to the target for the annual variable part of compensation of the Chief Executive Officer and corporate officers;

A share price performance objective relative to the share price increase over the vesting period.

On June 24, 2013, the Board of Directors allocated:

1,062,574 stock options to certain employees. Their exercise price is 18.47. The options vest in three batches, in June 2015 (for 50% of the options allocated), June 2016 (for 25% of the options allocated) and June 2017 (for 25% of the options allocated). The options have an eight-year duration.

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180,000 stock options to the other Corporate Committee members. Their exercise price is 18.47. The options vest in three batches, in June 2015 (for 50% of the options allocated), June 2016 (for 25% of the options allocated) and June 2017 (for 25% of the options allocated). The options have an eight-year duration. Such vesting is subject to performance conditions based on the fulfillment of the following objectives:

A share price performance objective relative to the share price considering the SBF 120 index;

A share price performance objective relative to the ADS price considering the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index;

A financial indicator in the form of an EBITDAS objective expressed in US dollars and related to the target for the annual variable part of compensation of the Corporate Committee members;

A share price performance objective relative to the share price increase over the vesting period.

200,000 stock options to the Chief Executive Officer and 100,000 to each of the Corporate Officers. Their exercise price is 18.47. The options vest in three batches, in June 2015 (for 50% of the options allocated), June 2016 (for 25% of the options allocated) and June 2017 (for 25% of the options allocated). The options have an eight-year duration. Such vesting is subject to performance conditions based on the fulfillment of the following objectives:

A share price performance objective relative to the share price considering the SBF 120 index;

A share price performance objective relative to the ADS price considering the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index;

A financial indicator in the form of an EBITDAS objective expressed in US dollars and related to the target for the annual variable part of compensation of the Chief Executive Officer and corporate officers;

A share price performance objective relative to the share price increase over the vesting period.

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.

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Information related to options outstanding at December 31, 2013 is summarized below:

Date of Board of Directors	Resolution	Options granted	Options outstanding at Dec. 31, 2013 <sup>(a)</sup>	Exercise price per share ( \$ )	Expiration date	Remaining duration
May 11, 2006		1,012,500	1,001,048	24.95	May 10, 2014	4.3 months
March 23, 2007		1,308,750	1,220,109	28.89	March 23, 2015	14.7 months
March 14, 2008		1,188,500	1,117,594	30.95	March 14, 2016	26.4 months
March 16, 2009		1,327,000	828,039	8.38	March 16, 2017	38.5 months
January 06, 2010		220,000	231,538	13.98	January 06, 2018	48.2 months
March 22, 2010		1,548,150	1,415,977	18.47	March 22, 2018	50.7 months
October 21, 2010		120,000	126,291	16.05	October 21, 2018	57.7 months
March 24, 2011		1,164,363	1,130,380	24.21	March 24, 2019	62.8 months
June 26, 2012		1,410,625	1,458,208	17.84	June 26, 2020	77.9 months
June 24, 2013		1,642,574	1,622,636	18.47	June 24, 2021	89.8 months
<b>Total</b>		<b>10,942,462</b>	<b>10,151,820</b>			

<sup>(a)</sup> Following the capital increase in October 2012, the stock options were adjusted as follows:

Date of stock options	Adjustment of number of options as of October 23, 2012	Exercise price before adjustment per share ( \$ )	Adjusted exercise price per share ( \$ )
May 11, 2006	1,001,048	26.26	24.95
March 23, 2007	1,221,425	30.40	28.89
March 14, 2008	1,120,226	32.57	30.95
March 16, 2009	950,179	8.82	8.38
January 06, 2010	231,538	14.71	13.98
March 22, 2010	1,430,622	19.44	18.47
October 21, 2010	126,291	16.88	16.05
March 24, 2011	1,150,636	25.48	24.21
June 26, 2012	1,483,424	18.77	17.84
<b>Total</b>	<b>8,715,389</b>		

A summary of the Company's stock option activity, and related information for the years ended December 31, 2013 follows:

	2013		2012 (restated)		2011 (restated)	
	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
	(weighted average exercise price in \$)					
Outstanding-beginning of year	8,711,012	21.67	7,062,320	23.16	6,428,504	22.17

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Granted	1,642,574	18.47	1,410,625	18.77	1,164,363	25.48
Adjustments followings the capital increase			435,498	21.68		
Exercised	(122,561)	8.42	(132,758)	13.06	(318,823)	7.31
Forfeited	(79,205)	20.30	(64,673)	23.98	(211,724)	20.21
<b>Outstanding-end of year</b>	<b>10,151,820</b>	<b>21.33</b>	<b>8,711,012</b>	<b>21.67</b>	<b>7,062,320</b>	<b>23.16</b>
Exercisable-end of year	6,694,183	14.91	5,943,122	22.60	4,535,303	16.11
The average price of CGG share was 17.46 in 2013, 21.89 in 2012, 20.17 in 2011.						

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### **Performance shares**

#### ***Allocation plan dated March 24, 2011***

On March 24, 2011 the Board of Directors implemented a performance share allocation plan for a maximum amount of 488,586 performance shares out of which 13,750 were allocated to the Chairman and 27,500 were allocated to the Chief Executive Officer. This allocation of shares is subject to the following performance conditions: (i) the achievement of a minimum average consolidated EBIT over fiscal years 2011 and 2012 and (ii) the achievement of an average EBITDAS over fiscal years 2011 and 2012 of either the Group, the Services segment or the Equipment segment, depending upon the segment to which each beneficiary belongs. In addition, the beneficiary still had to be an employee or officer of the Group upon final allocation of the shares.

Following the capital increase of October 2012, the number of existing or newly issued shares to be allocated to the Beneficiaries, including the Corporate Officers and the members of the Executive Committee was adjusted to 472,846.

The Board of Directors held on February 27, 2013 confirmed that the performance conditions for the plan implemented on March 24, 2011 were partially fulfilled and that 376,080 shares were allocated pursuant to this plan on May 3, 2013

#### ***Allocation plan dated June 26, 2012***

On June 26, 2012 the Board of Directors implemented a performance share allocation plan for a maximum amount of 516,550 performance shares out of which 27,500 were allocated to the Chief Executive Officer, 11,250 were allocated to each of the Corporate Officers, 57,000 were allocated to the Executive Committee members and 409,550 were allocated to certain employees. This allocation of shares is subject to the following performance conditions: (i) the achievement of a minimum average consolidated EBI over fiscal years 2012 and 2013 and (ii) the achievement of an average EBITDAS over fiscal years 2012 and 2013 of either the Group, the Services segment or the Equipment segment, depending upon the segment to which each beneficiary belongs. In addition, the beneficiary still had to be an employee or officer of the Group upon final allocation of the shares.

Following the capital increase of October 2012, the number of existing or newly issued shares to be allocated to the Beneficiaries, including the Senior Executive Officers and the members of the Executive Committee is adjusted to 535,018.

These performance units will be allocated on the later of the two following dates: June 26, 2014 or the date of the Annual Shareholders Meeting convened to approve the financial statements for fiscal year 2013, provided that the Board of Directors decides that the performance conditions set forth in the plan regulation have been fulfilled.

### **Performance units**

#### ***Allocation plan dated June 24, 2013***

On June 24, 2013, the Board of Directors of the Company, upon proposal of the Appointment-Remuneration Committee, implemented a multi-annual bonus system in the form of performance units, replacing the performance shares plans with a twofold objective:

Implement a remuneration mechanism globally harmonized and consistent with the growing internalization of our Group,

Establish a closer link between the remuneration of the main senior executives and the share price performance combined with the economic performance of the Group taken as a whole on a mid-term basis (3 years).

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The Corporate Committee members (including the Chief Executive Officer and the Corporate Officers) along with the senior executives of the Group and certain employees contributing to the Group performance or with a strong evolution potential within the Group are eligible to the plan.

The performance units vest upon the expiry of a 3-year period from the allocation date subject to a presence condition in the Group at the time of vesting and achievement of certain performance conditions. These performance conditions are based on the achievement of Group objectives related to the return on capital employed and balance sheet structure along with achievement of Divisions' financial objectives aligned with the Group strategic orientations over a 3-year period.

The number of vested 2013 performance units is determined upon achievement of the Group objectives up to 60% of the global allocation. The balance will be acquired based on the achievement of the Divisions' objectives.

The valuation of each vested 2013 performance unit shall be equal to the average closing prices of the CGG share on Euronext over the five trading days prior to the vesting date. The vested performance units will be paid half in cash and half in existing CGG shares.

**Compensation cost on stock options, performance shares and units**

The following table lists the assumptions used to value the 2011, 2012 and 2013 options plans, the 2012 performance shares allocation plan and the 2013 performance units allocation plan according to IFRS 2:

	Options granted	Volatility	Risk-free rate	Exercise price per share (€)	Estimated Maturity (years)	Fair value per share at the grant date (€)	Dividends yields
2011 stock options plan	1,164,363	37%	2.52%	25.48	4	8.48	0.0%
2012 stock options plan	1,410,625	42%	1.23%	18.77	4	5.98	0.0%
2013 stock options plan	1,642,574	42%	1.11%	18.47	4	5.14	0.0%

	Performance shares granted	Achievement of performance Conditions	Fair value per share at the grant date (€)	Dividends yields
2012 performance shares allocation plan	516,550	35% <sup>(b)</sup>	18.13 <sup>(a)</sup>	0.0%
2013 performance units allocation plan	625,500	50% <sup>(b)</sup>	16.80 <sup>(a)</sup>	0.0%

<sup>(a)</sup> Corresponds to CGG share price at the date of allocation.

<sup>(b)</sup> Estimated.



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According to IFRS 2, fair value of stock options and performance shares granted since November 7, 2002 must be recognized as an expense over the life of the plan. Detail of this expense is as follows:

	2013	Year 2012 (restated)	2011 (restated)
	(in millions of US\$)		
2008 stock options plan <sup>(a)</sup>			0.4
2009 stock options plan <sup>(b)</sup>		0.1	0.6
2010 stock options plan <sup>(c)</sup>	0.6	3.2	7.6
2011 stock options plan <sup>(d)</sup>	1.7	4.3	5.6
2012 stock options plan <sup>(e)</sup>	3.8	1.9	
2013 stock options plan <sup>(f)</sup>	1.8		
2009 performance shares plan <sup>(g)</sup>			0.1
2010 performance shares plan <sup>(h)</sup>		0.1	(1.8)
2011 performance shares plan <sup>(i)</sup>	1.9	9.9	3.2
2012 performance shares plan <sup>(j)</sup>	1.7	1.4	
2013 performance units plan <sup>(k)</sup>	0.7		
<b>Recognized expense from equity-settled share based payment transactions</b>	<b>12.2</b>	<b>20.9</b>	<b>15.7</b>

<sup>(a)</sup> of which US\$0.3 million for the executive managers of the Group in 2011.

<sup>(b)</sup> of which US\$0.1 million for the executive managers of the Group in 2012, US\$0.3 million in 2011.

<sup>(c)</sup> of which US\$0.3 million for the executive managers of the Group in 2013, US\$1.4 million in 2012, US\$3.8 million in 2011.

<sup>(d)</sup> of which US\$1.1 million for the executive managers of the Group in 2013, US\$2.9 million in 2012, US\$3.8 million in 2011.

<sup>(e)</sup> of which US\$1.8 million for the executive managers of the Group in 2013, US\$0.9 million in 2012.

<sup>(f)</sup> of which US\$0.6 million for the executive managers of the Group in 2013.

<sup>(g)</sup> none.

<sup>(h)</sup> of which US\$(0.3) million for the executive managers of the Group in 2011.

<sup>(i)</sup> of which US\$0.5 million for the executive managers of the Group in 2013, US\$2.4 million in 2012, US\$0.7 million in 2011.

<sup>(j)</sup> of which US\$0.3 million for the executive managers of the Group in 2013, US\$0.3 million in 2012.

<sup>(k)</sup> of which US\$0.1 million for the executive managers of the Group in 2013.

**NOTE 16 PROVISIONS**

	Balance at 31 December, 2012 (restated)		Additions	Deductions (used)	Deductions (unused)	Others <sup>(a)</sup>	Balance at 31 December, 2013
	(In millions of US dollars)						
Provisions for restructuring costs	0.8	24.0		(5.2)	(12.9)		6.7
Provisions for onerous contracts	4.8	35.0		(1.7)			38.1
Provisions for litigations	2.1	0.8		(1.0)		0.2	2.1
Provision for tax contingencies						6.3	6.3
Other provisions related to contracts	8.5	14.6		(10.7)		6.6	19.0
Provisions for demobilization costs	4.8	0.9		(0.5)		(4.3)	0.9
<b>Total current provisions</b>	<b>21.0</b>	<b>75.3</b>		<b>(19.1)</b>	<b>(12.9)</b>	<b>8.8</b>	<b>73.1</b>
Provisions for cash-settled share-based payment arrangements (note 15)		3.8					3.8
Retirement indemnity provisions	73.2	10.5		(13.0)	(2.5)	15.4	83.6
Provisions for tax contingencies	7.1	2.9		(2.3)		(1.7)	6.0
Provisions for unfavorable contracts	4.8			(5.0)		6.8	6.6
Customers Guarantee provisions	20.6	9.6		(12.4)		(0.1)	17.7
Provisions for customs and other contingencies	17.8	8.5		(1.3)		(0.2)	24.8

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<b>Total non-current provisions</b>	<b>123.5</b>	<b>35.3</b>	<b>(34.0)</b>	<b>(2.5)</b>	<b>20.2</b>	<b>142.5</b>
<b>Total provisions</b>	<b>144.5</b>	<b>110.6</b>	<b>(53.1)</b>	<b>(15.4)</b>	<b>29.0</b>	<b>215.6</b>

*(a) Includes the effects of exchange rates changes, variations in scope, reclassifications and gain (loss) on actuarial changes.*

**Provision for restructuring costs**

In 2013, provision for restructuring costs relate to the Fugro Geoscience integration.

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**Provision for onerous contract**

In 2013, we recognized a provision for onerous contract of US\$34.0 million as part of our marine fleet downsizing plan (note 21).

**Customers Guarantee provisions**

It corresponds to the warranty given by Sercel to external clients.

**Retirement indemnity provisions**

The Group has defined benefit pension plans in France, in Netherlands, in the United States, in the UK, in Mexico and in Norway.

In addition, a supplemental pension and retirement plan was implemented in December 2004 for the members of the Group's Management Committee and members of the Management Board of Sercel Holding. A contribution amounting to US\$4,6 million was paid in 2013 and US\$6.9 million in 2011. No contribution was paid in 2012.

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

historical staff turnover and standard mortality schedule;

age of retirement between 60 and 65 years old in France and 67 years old in Norway; and

actuarial rate and average rate of increase in future compensation.

As of December 31, 2013, the net liability for these plans amounted to US\$83.6 million.

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The status of the retirement indemnity plans is as follows:

	December 31,			
	2013	2012 (restated)	2011 (restated)	2010 (restated)
	(In millions of US dollars)			
<b>Amount recognized in the balance sheet</b>				
Present value of the obligation <sup>(a)</sup>	163.0	145.5	115.9	117.1
Fair value of plan assets	(79.4)	(72.3)	(63.5)	(61.3)
<b>Deficit (surplus) of funded plans</b>	<b>83.6</b>	<b>73.2</b>	<b>52.4</b>	<b>55.8</b>
<b>Net liability (asset) recognized in balance sheet</b>	<b>83.6</b>	<b>73.2</b>	<b>52.4</b>	<b>55.8</b>
<b>Amounts recognized in the income statement</b>				
Service cost	5.7	4.4	4.9	4.0
Interest cost (income)	2.2	2.5	2.0	2.4
Effects of curtailments/settlements	(4.1)		(0.3)	(0.9)
Payroll tax		0.1	0.1	
<b>Net periodic expense</b>	<b>3.8</b>	<b>7.0</b>	<b>6.7</b>	<b>5.5</b>
<b>Movements in the net liability recognized in the balance sheet</b>				
Net liability at January 1	73.2	52.4	55.8	66.3
Expense as above	3.8	7.0	6.7	5.5
Actuarial gains (losses) recognized in other comprehensive income <sup>(b)</sup>	6.3	14.4	1.8	
Contributions paid	(6.6)	(1.4)	(7.3)	(6.1)
Benefits paid by the Company	(2.1)	(2.3)	(2.9)	(4.4)
Consolidation scope entries and changes in exchange rates	8.4	2.8	(1.3)	(4.1)
Other	0.6	0.3	(0.4)	(1.4)
<b>Net liability at December 31</b>	<b>83.6</b>	<b>73.2</b>	<b>52.4</b>	<b>55.8</b>
<b>Change in benefit obligation</b>				
<b>Benefit obligation at January 1</b>	<b>145.5</b>	<b>115.9</b>	<b>117.1</b>	<b>123.1</b>
Payroll tax adjustment		0.1	0.2	(0.2)
Current service cost	6.0	4.4	4.9	4.0
Contributions paid	0.3	0.4	1.1	0.4
Interest cost	5.2	5.6	5.6	5.5
Past service cost	(0.3)			
Benefits paid from plan	(7.2)	(2.7)	(15.3)	(4.8)
Actuarial (gains) losses recognized in other comprehensive income	7.1	16.0	4.5	2.8
Effects of curtailments/settlements	(6.4)		(0.6)	(5.7)
Consolidation scope entries and changes in exchange rates	12.2	5.8	(1.6)	(8.3)
Other	0.6			0.3
<b>Benefit obligation at December 31</b>	<b>163.0</b>	<b>145.5</b>	<b>115.9</b>	<b>117.1</b>
<b>Change in plan assets</b>				
<b>Fair value of plan assets at January 1</b>	<b>72.3</b>	<b>63.5</b>	<b>61.3</b>	<b>56.8</b>
Interest income	3.0	3.1	3.6	3.1
Contributions paid	6.9	1.8	8.4	6.5
Benefits paid from plan	(5.1)	(0.4)	(12.4)	(0.4)
Actuarial gains and losses recognized in other comprehensive income	0.8	1.6	2.7	2.8
Effects of curtailments/settlements	(2.3)		(0.3)	(4.8)
Consolidation scope entries and changes in exchange rate	3.8	3.0	(0.3)	(2.6)
Other		(0.3)	0.5	(0.1)
<b>Fair value of plan assets at December 31<sup>(c)</sup></b>	<b>79.4</b>	<b>72.3</b>	<b>63.5</b>	<b>61.3</b>
Key assumptions used in estimating the Group's retirement obligations are:				
Discount rate <sup>(d)</sup>	3.00%	3.00%	4.75%	4.75%
Average rate of increase in future compensation <sup>(e)</sup>	3.31%	3.04%	2.93%	2.89%

(a)

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*In 2013 the obligation amounts to US\$163.0 million of which US\$54.3 million for defined benefit plans not covered (US\$46.9 million in 2012, US\$37.1 million in 2011 and US\$39.4 million in 2010). The average duration of the defined benefit plan obligation at the end of the reporting period is 15.3 years in 2013 and 16.6 years in 2012.*

*(b) Other comprehensive income*

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Cumulative actuarial losses recognized in other comprehensive income amount to US\$22.8 million as of December 31, 2013. Changes in the defined benefit obligation and fair value of plan assets are, as follows:

	<i>December 31,</i>	
	<i>2013</i>	<i>2012</i>
	<i>(restated)</i>	
	<i>(In millions of US dollars)</i>	
<b>Amount recognized in the other comprehensive income</b>		
Experience adjustment	4.0	
Actuarial changes arising from changes in demographic assumptions	3.1	4.8
Actuarial changes arising from changes in financial assumptions	(0.1)	11.8
Return on plan assets (excluding amounts included in net interest expense)	(0.7)	(2.2)
<b>Sub-total included in the other comprehensive income</b>	<b>6.3</b>	<b>14.4</b>

*(c) Plan assets*

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

	<i>December, 31</i>			
	<i>2013</i>	<i>2012</i>	<i>2011</i>	<i>2010</i>
Equity securities	48%	47%	35%	45%
Debt securities	22%	22%	29%	50%
Real estate	8%	8%	4%	4%
Other	22%	23%	32%	1%

*(d) Discount rate*

The discount rate for entities belonging to the euro zone is 3.00%. It has been defined by comparison to the following rates at December 31, 2013:

Bloomberg Corporate 15 years: 3.02%

IBOXX 10 + AA: 3.17%

IBOXX 10 + AA Financial: 3.31%

IBOXX 10+ AA Non Financial: 3.03%

For entities not included in the euro zone, the discount rates used are 4.65% for the United Kingdom, 4.45% for the United States, 3.50% for Norway and 7.50% for Mexico.

An increase of 0.25% of the discount rate would decrease the defined benefit plan obligation (DBO) by US\$5.8 million, and a decrease of the discount rate of 0.25% would increase the DBO by US\$6.4 million.

A variation of 0.25% of the discount rate would have no significant impacts on Service Cost and on Interest Cost (calculated impact is within US\$0.3 million).

*(e) Increase in future compensation*

*An increase of 0.25% of the average rate would increase the future compensation by US\$3.6 million, and a decrease of the average rate of 0.25% would decrease the future compensation by US\$3.4 million.*

*A variation of 0.25% of the average rate would have no significant impacts on Service Cost and on Interest Cost (calculated impact is within US\$0.3 million).*

**Table of Contents****NOTE 17 OTHER NON-CURRENT LIABILITIES**

Detail of other non-current liabilities is as follows:

	2013	December 31, 2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Deposit and guarantees			4.4
Research and development subsidies	4.2	5.5	6.7
Profit sharing scheme	37.5	41.1	38.7
<b>Other non-current liabilities</b>	<b>41.7</b>	<b>46.6</b>	<b>49.8</b>

**NOTE 18 CONTRACTUAL OBLIGATIONS, COMMITMENTS AND CONTINGENCIES****Status on contractual obligations**

	2013	December 31, 2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Long-term debt obligations	3,388.8	3,013.5	2,606.8
Finance lease obligations	120.3	136.6	170.8
Operating leases obligations <sup>(a)</sup>	1,211.1	1,174.3	1,100.3
<b>Total obligations</b>	<b>4,720.2</b>	<b>4,324.4</b>	<b>3,877.9</b>

<sup>(a)</sup> Including US\$807.4 million in 2013 for seismic vessel bareboat agreements, US\$898.3 million in 2012 and US\$863.5 million in 2011. The following table presents payments in future periods relating to contractual obligations as of December 31, 2013:

	Payments due by period				Total
	Less than 1 year	2-3 years	4-5 years	After 5 years	
	(In millions of US dollars)				
<i>Long-term debt obligations:</i>					
Repayments: fixed rates	60.7	879.1	547.6	1,146.5	2,633.8
Repayments: variables rates <sup>(a)</sup>	161.5	14.6			176.2
Bonds and facilities interests	126.8	225.6	117.7	108.7	578.8
<b>Total Long-term debt obligations</b>	<b>349.0</b>	<b>1,119.3</b>	<b>665.3</b>	<b>1,255.2</b>	<b>3,388.8</b>
<i>Finance leases:</i>					
Finance lease Obligations: fixed rates	15.2	30.2	30.0	44.9	120.3
Finance lease Obligations: variables rates <sup>(a)</sup>					
<b>Total Finance lease obligations</b>	<b>15.2</b>	<b>30.2</b>	<b>30.0</b>	<b>44.9</b>	<b>120.3</b>



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*Operating leases*<sup>(b)</sup>

Bareboat agreements	227.9	250.4	177.0	152.1	807.4
Other operating lease agreements	84.7	112.4	78.5	128.1	403.7
<b>Total Operating lease obligations</b>	<b>312.6</b>	<b>362.8</b>	<b>255.5</b>	<b>280.2</b>	<b>1,211.1</b>
<b>Total Contractual Obligations</b> <sup>(c)</sup>	<b>676.8</b>	<b>1,512.3</b>	<b>950.8</b>	<b>1,580.3</b>	<b>4,720.2</b>

<sup>(a)</sup> *Payments are based on the variable rates applicable as of December 31, 2013.*

<sup>(b)</sup> *Includes the five-year marine charter agreement signed on June 28, 2011 with Bourbon for six new support vessels of which three were delivered in 2013.*

<sup>(c)</sup> *Payments in foreign currencies are converted in US\$ at December 31, 2013 exchange rates.*

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**Table of Contents****Contractual obligations – finance leases**

The Group leases land, buildings and Geophysical Equipments under finance lease agreements expiring at various dates during the next five to ten years.

The following table presents reconciliation between finance lease obligations and finance lease debts as of December 31, 2013:

	Less than 1 year	1-5 years	After 5 years	Total
	(In millions of US dollars)			
<b>Finance lease Obligations</b>	<b>15.2</b>	<b>60.2</b>	<b>44.9</b>	<b>120.3</b>
Discounting	(6.2)	(13.6)	(15.6)	(35.4)
Headquarters purchase option			36.3	36.3
<b>Finance lease debt (see note 13)</b>	<b>9.0</b>	<b>46.6</b>	<b>65.6</b>	<b>121.2</b>

**Contractual obligations – operating leases**

Operating lease agreements relate primarily to bareboat charter agreements for seismic vessels, Geophysical Equipment, offices and computer equipment.

Rental expenses were US\$586.8 million in 2013, US\$466.1 million in 2012, US\$445.6 million in 2011.

**Credit agreements**

See note 13.

**Guarantees**

Guarantees issued include the following:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
<i>Operations</i>			
Guarantees issued in favor of clients <sup>(a)</sup>	789.0	720.2	577.1
Other guarantees and commitments issued <sup>(b)</sup>	215.0	184.2	220.5
<i>Financing</i>			
Guarantees issued in favor of banks <sup>(c)</sup>	1.5	3.9	3.3
<b>Total</b>	<b>1,005.5</b>	<b>908.3</b>	<b>800.9</b>

<sup>(a)</sup> Guarantees issued in favor of clients relate mainly to guarantees issued by the Company to support bids made at the subsidiaries level.

<sup>(b)</sup> Other guarantees relate primarily to guarantees issued by the Company on behalf of subsidiaries and affiliated companies in favor of customs or other governmental administrations.

<sup>(c)</sup>

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*Guarantees issued in favor of banks related mainly to guarantees issued by the Company to support credit facilities made at the subsidiaries level.*

On December 2011, the time charter related to the vessel *Elnusa Finder* was novated to the joint venture PT Elnusa-CGGVeritas Seismic. In conjunction to this transaction, we issued a guarantee for the benefit of the owner of the vessel (Swire Pacific Offshore) corresponding to the commitment of this 8-year time charter agreement ( 62 million). This guarantee was subject to a co-guarantee given by PT Elnusa Tbk up to their interest in the joint venture. On July 13, 2012, the time was transferred to our fully owned subsidiary Exploration Investment Resources II. The vessel was renamed *Pacific Finder*.

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The duration of the guarantees and commitments is as follows:

	Due date				Total
	Less than 1 year	2-3 years	4-5 years	After 5 years	
(In millions of US dollars)					
<i>Operations</i>					
Guarantees issued in favor of clients	680.3	52.8	3.4	52.5	789.0
Other guarantees and commitments	108.9	10.2	0.6	95.3	215.0
<i>Financing</i>					
Guarantees issued in favor of banks	1.5				1.5
<b>Total</b>	<b>790.7</b>	<b>63.0</b>	<b>4.0</b>	<b>147.8</b>	<b>1,005.5</b>

**Others**

During the year 2013, a bareboat charter extension for the seismic vessel *Venturer* was signed on June 28, 2013 for 1 additional year until December 2014.

The seismic vessels *Bergen Surveyor* and *Geo Atlantic* were returned to their ship-owner, respectively on October 17, 2013 and October 30, 2013.

The Group has no off-balance sheet obligations under IFRS that are not described above.

**Legal proceedings, claims and other contingencies**

The Group is a defendant in a number of legal proceedings arising in the ordinary course of business and has various unresolved claims pending. The outcome of these lawsuits and claims is not known at this time. The Group believes that the resulting liability, if any, net of amounts recoverable from insurance or other sources will not have a material adverse effect on its consolidated results of operations, financial position or cash flows.

*Requests for information made by the US Department of Commerce's Bureau of Industry and Security*

In order to provide complete and accurate responses to recent requests for information made by representatives of the US Department of Commerce's Bureau of Industry and Security (BIS), we conducted an internal review of the facts surrounding shipments to our vessels operating in or near Cuba. During the course of our review, we discovered that, despite our precautions, some shipments may not have complied fully with our internal policies and possibly violated applicable export controls and sanctions laws. We have provided BIS with all of the information it has requested to date and are cooperating fully with it in this matter. We have also informed on a voluntary basis the US Office of Foreign Assets Control.

The Company does not expect this matter to have any material impact on the Group's results of operation, financial position, or cash flows.

**NOTE 19 ANALYSIS BY OPERATING SEGMENT AND GEOGRAPHIC AREA**

Until February 1, 2013, we organized ourselves and reported our results on the basis of two segments: Geophysical Services and Geophysical Equipment. As a result of the acquisition of Fugro Geoscience Division as at January 31, 2013, we changed our organization, as well as the way management measures our performance. Since February 1, 2013, we have been organized in three divisions which we also used as segments for our financial reporting. These segments are:

**Acquisition**, which comprises the following business lines:

Marine acquisition: seismic data acquisition offshore undertaken by us on behalf of a specific client or for our Multi-client business line (internal activity);

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Land and Airborne: other seismic data acquisition undertaken by us on behalf of a specific client, or for our Multi-client business line (internal activity);

**Geology, Geophysics & Reservoir ( GGR )**. This operating segment comprises the Multi-clients business line (development and management of seismic surveys that we undertake and license to a number of clients on a non-exclusive basis) and the Subsurface Imaging and Reservoir business line (processing and imaging of geophysical data, reservoir characterization, geophysical consulting and software services, geological data library and data management solutions).

**Equipment**, which comprises our manufacturing and sales activities for seismic equipment used for data acquisition, both on land and marine. We carry out the activity in the Equipment segment through our subsidiary Sercel.

Financial information by segment is reported in accordance with our internal reporting system and provides internal segment information that is used by the chief operating decision maker to manage and measure the performance.

In 2013, in addition to our reorganization into three reportable segments, we also changed our main performance indicator from operating income to earnings before interest and tax ( EBIT ). We define EBIT as operating income plus our share of income in companies accounted for under the equity method. EBIT is used by management as a performance indicator because it captures the contribution to our results of the significant businesses that we manage through our joint ventures.

Prior period segment disclosure has been restated to reflect the new segments.

Inter-company transactions between segments are made at arm's length prices. They relate primarily to geophysical equipment sales made by the Equipment segment to the Acquisition segment and to services rendered by the Acquisition segment to the GGR segment for the multi-client seismic library.

These inter-segment revenues and the related earnings are eliminated in consolidation in the tables that follow under the column Eliminations and other .

The inter-segment sales and the related earnings recognized by the Equipment segment are eliminated and presented in the tables that follow as follows: (i) EBIT for our Acquisition segment is presented after elimination of amortization expenses corresponding to capital expenditures between our Equipment segment and Acquisition segment; and (ii) capital expenditures for our Acquisition segment are presented after elimination of inter-segment margin.

EBIT may include non-recurring 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 primarily of financial assets, including cash and cash equivalents. Due to the constant changes in work locations, the Group does not track its assets based on country of origin or ownership.

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.

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The following tables also present operating revenues and EBIT by segment, and operating revenues by geographic area (by location of customers).

In 2013, the Group's two most significant customers accounted for 5.1% and 3.9% of the Group's consolidated revenues compared with 7.1% and 5.8% in 2012 and 13.0% and 3.0% in 2011.

**Analysis by segment**

	2013				
	Acquisition	GGR	Equipment	Eliminations and Other	Consolidated Total
	(In millions of US dollars),				
	except for assets and capital employed in billions of US\$				
Revenues from unaffiliated customers	1,635.5	1,296.0	834.3		3,765.8
Inter-segment revenues	590.5		210.6	(801.1)	
<b>Operating revenues</b>	<b>2,226.0</b>	<b>1,296.0</b>	<b>1,044.9</b>	<b>(801.1)</b>	<b>3,765.8</b>
Depreciation and amortization (excluding multi-client surveys)	(1,106.0)	(62.8)	(44.2)		(1,213.0)
Depreciation and amortization of multi-client surveys		(398.7)			(398.7)
Share of income in companies accounted for under equity method <sup>(1)</sup>	22.2	0.2		(21.8)	0.6
<b>Earnings before interest and tax<sup>(2)</sup></b>	<b>(744.0)</b>	<b>317.2</b>	<b>293.0</b>	<b>(260.5)</b>	<b>(394.3)</b>
Capital expenditures (excluding multi-client surveys) <sup>(3)</sup>	249.8	49.6	55.0	(7.2)	347.2
Investments in multi-client surveys, net cash		479.4			479.4
<b>Capital employed</b>	<b>2.4</b>	<b>2.8</b>	<b>0.9</b>		<b>6.1</b>
<b>Total identifiable assets</b>	<b>3.1</b>	<b>3.1</b>	<b>1.2</b>	<b>0.3</b>	<b>7.7</b>

<sup>(1)</sup> Share of operational results of companies accounted for under equity method was US\$(0.7) million for the year ended December 31, 2013.

<sup>(2)</sup> For the year ended December 31, 2013, Acquisition EBIT includes US\$(800,0) million of non-recurring items: (i) US\$(721,0) million related to the Marine business, out of which US\$(139,0) million of assets impairment and provisions for onerous contracts and US\$(582,0) million of goodwill depreciation as a consequence of the 25% fleet downsizing plan and change of market outlook; and (ii) US\$(79,0) million of goodwill and assets impairment as a consequence of more overall difficult Land market conditions.

GGR EBIT includes a gain of US\$19.8 million related to the sale of the Company's shareholding interest in Spectrum ASA.

Eliminations and other include general corporate expenses of US\$(54.0) million, US\$(189.1) million of intra-group margin and US\$(17.4) million of non-recurring items related to the Fugro Geoscience transaction including: (i) a gain of US\$84.5 million related to contribution of shallow-water and OBC assets to our Seabed joint venture with Fugro; offset by (ii) share of income of our Seabed joint venture of US\$(21.8) million; and (iii) acquisition and integration costs, net of reversal of provisions, of US\$(80.1) million, out of which US\$(41.1) million related to the Marine business and the acquired vessels from Fugro.

<sup>(3)</sup> Capital expenditures include capitalized development costs of US\$(56.9) million for the year ended December 31, 2013.

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	2012 (restated)				Consolidated Total
	Acquisition	GGR	Equipment	Eliminations and Other	
	(In millions of US dollars), except for assets and capital employed in billions of US\$				
Revenues from unaffiliated customers	1,507.3	949.5	953.7		3,410.5
Inter-segment revenues	370.9		250.6	(621.5)	
<b>Operating revenues</b>	<b>1,878.2</b>	<b>949.5</b>	<b>1,204.3</b>	<b>(621.5)</b>	<b>3,410.5</b>
Depreciation and amortization (excluding multi-client surveys)	(258.2)	(36.5)	(43.3)	(30.0)	(368.0)
Depreciation and amortization of multi-client surveys		(340.9)			(340.9)
Share of income in companies accounted for under equity method <sup>(1)</sup>	34.1	3.3			37.4
<b>Earnings before interest and tax<sup>(2)</sup></b>	<b>20.5</b>	<b>182.7</b>	<b>380.4</b>	<b>(215.6)</b>	<b>368.0</b>
Capital expenditures (excluding multi-client surveys) <sup>(3)</sup>	296.3	33.4	44.1	(5.0)	368.8
Investments in multi-client surveys, net cash		363.8			363.8
<b>Capital employed</b>	<b>2.9</b>	<b>1.8</b>	<b>0.7</b>		<b>5.4</b>
<b>Total assets<sup>(4)</sup></b>	<b>3.3</b>	<b>2.0</b>	<b>1.0</b>	<b>0.5</b>	<b>6.8</b>

<sup>(1)</sup> Operational results of companies accounted for under equity method were US\$49.2 million for the year ended December 31, 2012.

<sup>(2)</sup> For the year ended December 31, 2012, general corporate expenses amounted to US\$(53.8) million and an impairment loss of US\$(30.0) million related to the Veritas trade name.

<sup>(3)</sup> Capital expenditures include capitalized development costs of US\$(29.1) million for the year ended December 31, 2012.

<sup>(4)</sup> Included net assets corresponding to contributed businesses reclassified as assets held for sale for US\$376.4 million (note 5).

	2011 (restated)				Consolidated Total
	Acquisition	GGR	Equipment	Eliminations and Other	
	(In millions of US dollars), except for assets and capital employed in billions of US\$				
Revenues from unaffiliated customers	1,350.5	939.0	891.4		3,180.9
Inter-segment revenues	167.7		250.6	(418.3)	
<b>Operating revenues</b>	<b>1,518.2</b>	<b>939.0</b>	<b>1,142.0</b>	<b>(418.3)</b>	<b>3,180.9</b>
Depreciation and amortization (excluding multi-client surveys)	(245.0)	(47.6)	(51.1)		(343.7)
Depreciation and amortization of multi-client surveys		(285.3)			(285.3)
Share of income in companies accounted for under equity method <sup>(1)</sup>	15.4	1.0			16.4
<b>Earnings before interest and tax<sup>(2)</sup></b>	<b>(178.9)</b>	<b>229.1</b>	<b>354.0</b>	<b>(180.6)</b>	<b>223.6</b>
Capital expenditures (excluding multi-client surveys) <sup>(3)</sup>	338.7	31.0	27.1	(31.2)	365.6
Investments in multi-client surveys, net cash		203.2			203.2
<b>Capital employed</b>	<b>2.9</b>	<b>1.8</b>	<b>0.5</b>	<b>0.1</b>	<b>5.3</b>
<b>Total assets</b>	<b>3.5</b>	<b>2.0</b>	<b>0.9</b>	<b>0.2</b>	<b>6.6</b>

<sup>(1)</sup> Operational results of companies accounted for under equity method were US\$17.4 million for the year ended December 31, 2011.

<sup>(2)</sup> For the year ended December 31, 2011, general corporate expenses amounted to US\$(57.4) million.

<sup>(3)</sup> Capital expenditures include capitalized development costs of US\$(23.0) million for the year ended December 31, 2011.



**Table of Contents****Analysis by geographic area***Analysis of operating revenues by location of customers*

	2013		2012 (restated)		2011 (restated)	
	(In millions of US dollars)					
North America	872.2	23.2%	730.3	21.4%	704.8	22.2%
Central and South Americas	309.9	8.2%	499.7	14.7%	641.0	20.2%
Europe, Africa and Middle East	1,666.2	44.2%	1,245.8	36.5%	1,134.5	35.6%
Asia Pacific	917.5	24.4%	934.7	27.4%	700.6	22.0%
<b>Consolidated total</b>	<b>3,765.8</b>	<b>100%</b>	<b>3,410.5</b>	<b>100%</b>	<b>3,180.9</b>	<b>100%</b>

Operating revenue attributed to France is US\$38.6 million for the year ended December 31, 2013.

*Analysis of operating revenues by category*

	2013		2012 (restated)		2011 (restated)	
	(In millions of US dollars)					
Sales of goods	825.7	21.9%	913.4	26.8%	857.2	27.0%
Services rendered <sup>(a)</sup>	2,674.8	71.1%	2,281.0	67.2%	1,962.7	61.7%
After-sales on multi-client surveys	259.9	6.9%	208.0	5.8%	334.9	10.5%
Leases	5.4	0.1%	8.1	0.2%	26.1	0.8%
<b>Consolidated total</b>	<b>3,765.8</b>	<b>100%</b>	<b>3,410.5</b>	<b>100%</b>	<b>3,180.9</b>	<b>100%</b>

<sup>(a)</sup> Included services rendered and royalties

**NOTE 20 RESEARCH AND DEVELOPMENT EXPENSES**

Analysis of research and development expenses is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Research and development costs	(181.0)	(135.1)	(117.2)
Development costs capitalized	56.9	29.1	23.0
<b>Research and development expensed</b>	<b>(124.1)</b>	<b>(106.0)</b>	<b>(94.2)</b>
Government grants recognized in income	18.2	13.2	17.2
<b>Research and development costs net</b>	<b>(105.9)</b>	<b>(92.8)</b>	<b>(77.0)</b>

Research and development expenditures related primarily to:

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for the Geophysical Services segment, projects concerning data processing services and marine acquisition; and

for the equipment segment, projects concerning seismic data recording equipment.

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**Table of Contents****NOTE 21 OTHER REVENUES AND EXPENSES**

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Impairment of goodwill	(640.0)		
Impairment of assets	(130.0)	(30.0)	
Restructuring costs	(5.6)	(6.9)	(21.8)
Change in restructuring reserves	(40.0)	6.1	24.4
Other non-recurring revenues (expenses)	(21.8)	(6.1)	3.3
<b>Non-recurring revenues (expenses) net</b>	<b>(837.4)</b>	<b>(36.9)</b>	<b>5.9</b>
Exchange gains (losses) on hedging contracts	1.9	0.8	4.8
Gains (losses) on sales of assets	90.3	9.4	23.6
<b>Other revenues (expenses) net</b>	<b>(745.2)</b>	<b>(26.7)</b>	<b>34.3</b>

**Year ended December 31, 2013***Impairment of goodwill*

In 2013, we recognized US\$582.0 million of Marine goodwill impairment as a consequence of the 25% fleet downsizing plan and change of market outlook; and US\$58.0 million of Land goodwill impairment as a consequence of more overall difficult market conditions (see note 11).

*Impairment of assets*

In 2013, we recognized an impairment of vessels and related equipment amounting to US\$105.0 million and an impairment of intangible Land assets for US\$21.0 million.

*Change in restructuring reserves*

This item includes a provision for onerous contract of US\$34.0 million as part of our marine fleet downsizing plan (see note 16).

*Other non-recurring revenues (expenses)*

This line item mainly corresponds to acquisition costs related to the Fugro Geoscience transaction.

*Gains (losses) on sales of assets*

In 2013, we recognized a US\$84.5 million gain arising from our contribution of shallow-water and OBC assets to the joint venture Seabed Geosolutions BV that took place on February 16, 2013 between CGG and Fugro (see note 2).

This line item also includes a gain amounting to US\$19.8 million arising from the disposal of our remaining shares we held in Spectrum ASA at NOK 47.50 per share (see note 2); and equipment losses mainly relating to the scrap of marine equipment.

**Table of Contents****Year ended December 31, 2012***2012 Performance plan*

In 2012, we paid US\$6.9 million related to our 2010 performance plan, which was offset by the use of the corresponding provisions.

*Gains (losses) on sales of assets*

In 2012, gains on assets included the gain arising from the disposal of our stake in Spectrum ASA amounting to US\$15.0 million. We also recognized a US\$6.1 million gain arising from the contribution of our seismic vessel *Amadeus* to our joint venture PTSC CGGV Geophysical Survey Company Limited during the first quarter of 2012 (see note 2).

This line item also included equipment losses mainly relating to the scrap of marine equipment for US\$10.6 million.

*Other non-recurring revenues (expenses)*

This line item included fees related to the acquisition of Fugro Geoscience Division amounting to US\$6.3 million.

An impairment loss related to the Veritas Trade name was also recorded for an amount of US\$30 million after the decision to change our brand name from CGGVeritas to CGG.

**Year ended December 31, 2011***2011 Performance plan*

In 2011, we paid US\$20.9 million related to our 2010 performance plan, which was offset by the use of the corresponding provisions.

*Gains (losses) on sales of assets*

In 2011, Gains on assets included the gain arising from the disposal of our assets in relation with our transaction with Norfield AS amounting to US\$10.9 million. We also recognized a US\$18.8 million gain arising from the contribution of our 2D multi-client marine library to Spectrum ASA, and a US\$4.2 million gain for the sale of our shares in the company Cybernetix (see note 2).

This line item also included vessels and related equipment's losses mainly relating to the crash of one seismic vessel (US\$6.7 million). Related insurance indemnities amounting to US\$4.2 million were included in the line item Other non-recurring revenues.

**NOTE 22 COST OF FINANCIAL DEBT**

Cost of financial debt includes expenses related to financial debt, composed of bonds, bank loans, capital-lease obligations and other financial borrowings, net of income provided by cash and cash equivalents.

Analysis of cost of financial debt is as follows:

	2013	December 31, 2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Current interest expenses related to financial debt	(179.4)	(151.5)	(149.0)
Amortization of deferred expenditures on financial debts	(13.9)	(7.5)	(28.2)
Income provided by cash and cash equivalents	1.6	2.3	2.7
<b>Cost of financial debt, net</b>	<b>(191.7)</b>	<b>(156.7)</b>	<b>(174.5)</b>



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On August 21, 2013, we redeemed US\$125 million aggregate principal amount of our US\$350 million 9 1/2% Senior Notes due 2016 at a price of 104.75% plus accrued interest. Accelerated amortization of deferred expenditures for early repayment are recorded for US\$4.3 million in line Amortization of deferred expenditures on financial debts .

On March 1, 2011, we redeemed US\$460 million aggregate principal amount of our US\$530 million 7 1/2% Senior Notes due 2015. On June 30, 2011, we redeemed the remaining US\$70 million. Accelerated amortization of deferred expenditures was recorded for US\$6.2 million in line Amortization of deferred expenditures on financial debts .

On June 2, 2011, we repaid in full the US\$508 million outstanding under our Term Loan B facility with the proceeds of our issuance of senior bonds due 2021. Accelerated amortization of deferred expenditures was recorded for US\$15.4 million in line Amortization of deferred expenditures on financial debts .

**NOTE 23 OTHER FINANCIAL INCOME (LOSS)**

Analysis of other financial income (loss) is as follows:

	2013	December 31, 2012 (restated) (In millions of US dollars)	2011 (restated)
Exchange gains (losses) net	(4.6)	0.7	21.9
Other financial income (expenses)	(17.7)	(20.4)	(21.1)
<b>Other financial income (loss)</b>	<b>(22.3)</b>	<b>(19.7)</b>	<b>0.8</b>

Other financial expenses include arrangement fees for a bridge credit facility that was planned to finance a portion of the acquisition of the Fugro s Geoscience Division, for US\$3.7 million and US\$12.0 million in 2013 and 2012 respectively.

Other financial expenses also include a US\$5.9 million for the early repayment penalty of our US\$350 million 9 1/2% Senior Notes due 2016.

**NOTE 24 INCOME TAXES**

Income tax benefit (expense) consists of:

	2013	December 31, 2012 (restated) (In millions of US dollars)	2011 (restated)
<b>France</b>			
Current income tax expense		(9.9)	(13.2)
Adjustments on income tax recognized in the period for prior periods	5.4	3.9	(10.2)
Deferred taxes on temporary differences <sup>(a)</sup>	11.8	(9.9)	(8.1)
Deferred taxes recognized in the period for prior periods <sup>(b)</sup>	(21.6)	(18.6)	66.1
Deferred taxes on currency translation	16.6	2.6	(1.5)
<b>Total France</b>	<b>12.2</b>	<b>(31.9)</b>	<b>33.1</b>
<b>Foreign countries</b>			
Current income tax expense <sup>(c)</sup>	(110.7)	(107.7)	(117.5)
Adjustments on income tax recognized in the period for prior periods	2.8	0.1	(4.6)
Deferred taxes on temporary differences for the period	21.1	45.1	32.6
Deferred taxes recognized in the period for prior periods	(6.2)	(8.1)	(5.8)
Deferred taxes on currency translation	(2.1)	3.3	(0.9)
<b>Total Foreign countries</b>	<b>(95.1)</b>	<b>(67.3)</b>	<b>(96.2)</b>
<b>Total income tax benefit (expense)</b>	<b>(82.9)</b>	<b>(99.2)</b>	<b>(63.1)</b>

- (a) In 2013, the French branch of the Netherlands entity joined the French tax group.*
- (b) In 2013, includes a reversal of deferred tax asset on net operating losses carry forward amounting to US\$19.9 million. In 2012, included a reversal of deferred tax asset amounting to US\$14.5 million and related to the correction of the French tax group loss due to the carry back and R&D tax credit adjustments. In 2011, included US\$73.0 million of deferred tax asset related to the remaining French tax group loss carried forward based on a revised 2012-2015 tax planning.*
- (c) Includes withholding taxes.*

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The Company and its subsidiaries compute income taxes in accordance with the applicable tax rules and regulations of the numerous tax authorities where the Group operates. The tax regimes and income tax rates legislated by these taxing authorities vary substantially. In foreign countries, income taxes are often accrued based on deemed profits calculated as a percentage of sales as defined by local government tax authorities.

Due to the mobile nature of seismic acquisition activities, current relationships between the French and foreign components of such tax items are not reliable indicators of such relationships in future periods.

The reconciliation between income tax expense in the income statement and the theoretical tax charge is detailed below:

	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
<b>Net income (loss)</b>	<b>(691.2)</b>	<b>92.4</b>	<b>(13.2)</b>
<b>Income taxes</b>	<b>(82.9)</b>	<b>(99.2)</b>	<b>(63.1)</b>
<b>Net Income (loss) before taxes</b>	<b>(608.3)</b>	<b>191.6</b>	<b>49.9</b>
<i>Differences on tax basis:</i>			
Equity investment companies income	(0.6)	(37.4)	(16.4)
<b>Theoretical tax basis</b>	<b>(608.9)</b>	<b>154.2</b>	<b>33.5</b>
Enacted tax rate in France	38.00%	36.10%	36.10%
<b>Theoretical taxes</b>	<b>231.4</b>	<b>(55.6)</b>	<b>(12.1)</b>
<i>Differences on tax:</i>			
Differences in tax rates between France and foreign countries	(4.3)	25.6	1.0
Non-deductible part of dividends	(4.7)	(1.5)	(5.3)
Adjustments on the tax expense recognized in the period for prior periods	8.2	4.0	(14.9)
Adjustments on the deferred tax expense recognized in the period for prior periods <sup>(a)</sup>	(27.9)	(26.7)	59.8
Other permanent differences <sup>(b)</sup>	(269.7)	(33.1)	(50.7)
Deferred tax unrecognized on losses of the period on the French tax group	(20.2)		
Deferred tax unrecognized on losses of the period on foreign entities <sup>(c)</sup>	(10.3)	(12.4)	(27.1)
Unrecognized deferred tax on losses of prior periods	3.0	0.7	10.0
Income tax and deferred tax on Argas net income (equity method company) <sup>(d)</sup>	(3.0)	(6.1)	(1.4)
Deferred tax on currency translation adjustments <sup>(e)</sup>	14.6	5.9	(4.6)
Other <sup>(f)</sup>			(17.8)
<b>Income taxes</b>	<b>(82.9)</b>	<b>(99.2)</b>	<b>(63.1)</b>

<sup>(a)</sup> In 2013, includes a reversal of deferred tax asset on net operating losses carry forward amounting to US\$19.9 million. In 2012, included a reversal of deferred tax assets amounting to US\$14.5 million related to the correction of the French tax group loss due to the carry back and R&D Tax Credit adjustments. Included deferred tax assets recognized on the French tax group for US\$73.0 million in 2011.

<sup>(b)</sup> In 2013 permanent differences include impairment of goodwill for US\$640 million. Also primarily include withholding taxes.

<sup>(c)</sup> Corresponds to the unrecognized deferred tax on losses for the period for various countries due to short and medium term uncertainties. CGG SA, as shareholder of Argas, is directly required to pay income tax for Argas in Saudi Arabia for its share in Argas.

<sup>(e)</sup> Corresponds to the currency translation adjustment related to the translation in functional currency of the local books of French and Norwegian entities.

<sup>(f)</sup> In 2011, included the income tax impact of 10% of the net gain realized on internal disposal of investments.



**Table of Contents****Net operating loss carried forward**

Net operating loss carried forward available and not recognized as deferred tax assets as of December 31, 2013, amounted to US\$285.2 million and are currently scheduled to expire as follows:

	France (In millions of US dollars)	Foreign countries (In millions of US dollars)
2014		5.0
2015 and thereafter		98.0
Available indefinitely	64.4	118.3
<b>Total</b>	<b>64.4</b>	<b>221.3</b>

The Group records valuation allowances on any deferred tax asset recognized on losses carried forward for entities that have a recent history of generating losses and low recovery perspectives or, for which there is a dispute with tax authorities.

**Deferred tax assets and liabilities**

Deferred tax assets and liabilities are as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Tax losses carried forward	151.7	137.7	143.0
Deferred tax assets related to timing differences	70.9	33.7	45.8
<b>Total deferred tax assets</b>	<b>222.6</b>	<b>171.4</b>	<b>188.8</b>
Deferred tax liabilities related to timing differences	148.9	106.0	104.4
<b>Total deferred tax liabilities</b>	<b>148.9</b>	<b>106.0</b>	<b>104.4</b>
<b>Total deferred taxes, net</b>	<b>73.7</b>	<b>65.4</b>	<b>84.4</b>

The reconciliation of net deferred tax is as follows:

	December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Non-deductible provisions (including pensions and profit sharing)	50.8	52.1	60.0
Tangible assets	93.0	100.0	68.3
Effect of currency translation adjustment not recognized in income statement	6.1	(2.2)	(5.3)
Multi-client surveys (including deferred revenues)	(60.9)	(86.5)	(50.2)
Assets reassessed in purchase price allocation of acquisitions	(102.1)	(83.2)	(78.3)
Development costs capitalized	(22.4)	(15.1)	(11.5)
Other deferred revenues	(7.8)	(10.1)	(14.2)
Convertible bonds and other financial instruments, including Net Investment Hedge	(42.5)	(60.9)	(32.0)
Other	7.8	33.6	4.6

<b>Total deferred tax assets net of deferred tax (liabilities) related to timing differences</b>	<b>(78.0)</b>	<b>(72.3)</b>	<b>(58.6)</b>
Tax losses carried forward	151.7	137.7	143.0
<b>Total deferred tax assets net of deferred tax (liabilities)</b>	<b>73.7</b>	<b>65.4</b>	<b>84.4</b>

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The impact of the Fugro integration is not significant.

As of December 31, 2013, deferred tax assets (liabilities) per tax group are as follows:

	France	Norway	US	Other	Total
Net deferred tax assets (liabilities) related to timing differences	7.6	3.4	(101.8)	12.8	(78.0)
Deferred tax assets on losses carried forward	98.8	27.6		25.3	151.7
<b>Total deferred tax assets (liabilities)</b>	<b>106.4</b>	<b>31.0</b>	<b>(101.8)</b>	<b>38.1</b>	<b>73.7</b>

The deferred taxes recognized on losses carried forward are recoverable without expiration date.

The deferred tax assets recognized on losses carried forward of the French tax group are based on a 2014-2018 tax planning.

**Tax audit and litigation***US*

The ongoing tax audit regarding CGG Holding (U.S.) Inc. for the 2007 fiscal year has been extended to 2008-2011 within a limited audit scope. The on-site verification was concluded but the procedure is still pending until the conclusions of the CGG Americas litigation.

The Group is litigating the tax authorities' position related to the tax audit of CGG Americas covering fiscal years 2006 and 2007 before the Civil Courts but does not fear any material consequences. All petitions, motions, objections and rebuttals have been filed during 2012 but the Courts' decisions were not released in 2013.

CGG Holding (U.S.) Inc. has received a redetermination notice regarding its Texas State tax for the years 2007 and 2008 for US\$3.4 million. The Group is litigating the Texas Controller's position before the Civil Courts. Depositions occurred in June 2013 and were favorable to the Company; trial occurred recently in February, 2014. The company is now awaiting the decision.

*Brazil*

The City of Rio has claimed US\$48 million (103 million Brazilian reais) against Veritas do Brazil plus US\$30 million (63 million Brazilian reais) to CGG do Brazil Participacoes Ltda concerning tax on services (ISS) with respect to the years 2001 to 2008, which has been duly disputed.

Decisions in favor of Veritas do Brazil were rendered in Appeal in August 2011 and May 2012. The municipality appealed to Supreme Court in June 2012 and Veritas do Brazil presented its defense in August 2012. The Superior Court of Justice denied again receiving the Municipality Appeal on the case. The Municipality can appeal against the decision before Supreme Court.

Following a 2012 audit on year 2009, CGG do Brazil Participacoes Ltda was reassessed US\$7.9 million of withholding tax and US\$5.3 million of CIDE. The reassessment is disputed. No events occurred in this Court Case during 2013.

*Middle East*

In Egypt, the discussions with the tax authorities on their US\$25 million tax claim, based on revenues earned without any deduction of costs incurred have not led to any significant new development in 2013. The Group does not expect this claim to have any material impact on the Group's statements.

**Table of Contents***India*

The Group has litigation with Indian Tax administration regarding the application of the specific regime dedicated to activities in connection with exploration of mineral oil (subject to 4.2% withholding tax) for years 2006 to 2010. Indian Tax Administration has changed its interpretation, by requesting a 10.0% withholding tax as Fees for Technical Services without any legal basis, no specific regulations has been issued so far. The whole industry being concerned, this issue will be handled by the Indian Supreme Court.

Besides, In January 2012, Delhi Income Tax Appellate Tribunal (ITAT) issued an unfavorable decision, based on assumptions which do not fit with the Company's actual situation. The Group challenged the ITAT order through a miscellaneous application and appealed the same decision to the Nainital High Court. The hearings at High Court could not take place in 2013.

Nevertheless, since December 2012 in similar cases, Delhi High Court has issued several judgments in favor of seismic companies, on disputes based on the same grounds than ours. In a nutshell, these judgments state officially that seismic activities are eligible to the said specific regime, whatever the legal way the activities are performed in India.

The Group does not expect this claim to have any material impact on the Group's statements.

**NOTE 25 PERSONNEL**

The analysis of personnel is as follows:

	Year ended December 31,		
	2013	2012 (restated)	2011 (restated)
Personnel employed under French contracts	1,960	1,929	1,828
Personnel employed under local contracts	7,728	5,631	5,370
<b>Total</b>	<b>9,688</b>	<b>7,560</b>	<b>7,198</b>
Including field staff of:	1,617	1,500	1,476

The total cost of personnel employed was US\$1,142.6 million in 2013, US\$911.5 million in 2012, and US\$905.8 million in 2011.

2,305 people have joined the Group pursuant the acquisition of Fugro.

**NOTE 26 KEY MANAGEMENT PERSONNEL COMPENSATION**

From February 1, 2013, the Corporate Committee ( C-Com ) replaced the Executive Committee. The C-Com is chaired by the Chief Executive Officer and brings together the two Corporate Officers of the Group and the Senior Executive Vice Presidents of the Divisions.

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The C-Com members remuneration for year 2013 and Directors and Executive Committee members remuneration for 2012 and 2011 were:

	Year ended December 31,		
	2013	2012 (restated) (in US\$)	2011 (restated)
Short-term employee benefit paid <sup>(a)</sup>	4,714,636	8,337,564	10,354,542
Directors' fees	967,542	941,700	1,024,561
Long-term employee benefit pension <sup>(b)</sup>	69,015	62,293	79,388
Long-term employee benefit supplemental pension <sup>(c)</sup>	954,088	1,221,058	1,266,967
Share-based payments <sup>(d)</sup>	4,495,433	7,254,272	6,834,400

<sup>(a)</sup> Excludes tax on salary.

<sup>(b)</sup> Cost of services rendered and interest cost.

<sup>(c)</sup> Cost of services rendered and interest cost on the supplemental pension implemented by the end of 2004.

<sup>(d)</sup> Expense in the income statement related to the stock options and performance shares plans.

**Contractual indemnity in case of termination of the functions****Chief Executive Officer**

The Board of Directors of May 10, 2012, having renewed the term of office of Mr. Jean-Georges Malcor for a two-year period, i.e. until the General Meeting convened to approve the financial statements for the financial year ended December 31, 2013, also renewed for the duration of this office, the terms and conditions of the advantages granted to Mr. Jean-Georges Malcor in case of termination of its term of office as they had been approved by the Board of Directors of February 24, 2011 and ratified by the General Meeting of May 4, 2011. These benefits were ratified by the General Meeting of May 3, 2013.

These advantages are the following:

Mr. Jean-Georges Malcor does not benefit from any contractual termination indemnity, except in case of a forced departure relating to a change of control or a change of strategy. Such indemnity shall be equal to the difference between:

- (i) a gross amount of 200% of the gross fixed compensation paid by the Company to Mr. Jean-Georges Malcor during the twelve-month period preceding his departure date, to which is added the annual average of the variable compensation paid by the Company to Mr. Jean-Georges Malcor over the thirty-six-month period preceding his departure date (hereinafter the Reference Annual Compensation), and
- (ii) any sum to which Mr. Jean-Georges Malcor may be entitled as a result of such termination, including any sums to be paid further to the application of his non-competition commitment.

The indemnity global amount shall not exceed 200% of the Reference Annual Compensation.

Pursuant to article L.225-42-1 of the Commercial Code, the payment of the special termination indemnity referred to hereinabove shall remain subject to the achievement of the following performance conditions, related to the Company's performance:

The average, calculated over the 60 trading days preceding the departure date, of the ratio of the CGG ADS price over the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index shall equal at least two-thirds of the same average ratio over the same 60-day period four years before the date on which Mr. Malcor leaves the Group;



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The average, calculated over the 60 trading days preceding the departure date, of the ratio of the CGG share price over the SBF 120 index shall equal at least two-thirds of the same average ratio over the same 60-day period four years before the date on which Mr. Malcor leaves the Group;

The average margin rate of the Group EBITDAS over the four years preceding the date on which Mr. Malcor leaves the Group shall be at least 25%.

Payment of the full amount of the special termination indemnity is subject to the fulfillment of two conditions out of three. In case only one condition is fulfilled, then Mr. Jean-Georges Malcor will be entitled to receive only 50% of the said special termination indemnity.

Finally, pursuant to said article L.225-42-1 of the Commercial Code in particular, the Board of Directors shall verify prior to the payment of the special severance payment (i) that the performance conditions described hereabove are duly fulfilled and (ii) that the payment of such special termination indemnity complies with the corporate governance code applicable at the date of departure.

### Corporate Officers (*Directeurs Généraux Délégués*)

The benefits granted to Messrs. Frydman and Rouiller in case of their departure from the Group were approved by the Board of Directors on February 29, 2012 and ratified by the General Meeting on May 10, 2012. They include the following:

Messrs. Frydman and Rouiller will benefit from a special termination indemnity in the event of a forced departure relating to a change of control or a change of strategy. The amount of this indemnity is set at the difference between

- (i) a gross amount equal to 200% of their reference annual compensation and
- (ii) any amounts to which they may claim entitlement in case of departure from the Group, particularly, the indemnities that could be paid in connection with their non-compete agreement referred to below.

The global amount of such special termination indemnity shall not exceed 200% of the reference annual compensation.

In accordance with Article L.225-42-1 of the French Commercial Code, payment of the special termination indemnity is subject to performance conditions to be assessed with regard to the Company's performance based on the fulfillment of at least two of the following three objectives:

The average of the ratio between the CGG ADS price over the PHLX Oil Service Sector<sup>SM</sup> (OSX<sup>SM</sup>) index over the 60 trading days preceding the date of departure shall equal at least two-thirds of the same average ratio assessed over the same period of 60 trading days four years before the beneficiary leaves the Group;

The average of the ratio of the CGG share price over the SBF 120 index over the 60 trading days preceding the date of departure shall equal at least two-thirds of the same average ratio assessed over the same period of 60 trading days four years before the beneficiary leaves the Group;

The average Group EBITDAS margin over the 4 years preceding the date of departure shall be at least 25%.

Payment of the full amount of the special termination indemnity is subject to the fulfillment of two conditions out of three. Should only one of the objectives be fulfilled, then the beneficiary would only be entitled to 50% of his special termination indemnity.

Finally, pursuant to said article L.225-42-1 of the Commercial Code in particular, the Board of Directors shall verify prior to the payment of the special severance payment (i) that the performance conditions described hereabove are duly fulfilled and (ii) that the payment of such special termination indemnity complies with the corporate governance code applicable at the date of departure.





**Table of Contents****NOTE 27 RELATED PARTY TRANSACTIONS**

The Group enters into contracts with related parties concluded at arm's length.

	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Sales of Geophysical Equipment to Argas	1.4	10.9	4.2
Equipment rentals and services rendered to Argas	9.7	10.4	15.2
Charter revenues received from LDA for the <i>CGG Alizé</i>	15.3	12.2	13.8
Services rendered to Gardline CGG Pte Ltd.		3.3	
Equipment rentals and services rendered to PTSC CGGV Geophysical Survey Company	27.8	13.6	
Equipment rentals and services rendered to PT Elnusa-CGGVeritas Seismic		6.0	17.3
Equipment rentals and services rendered to Seabed Geosolutions BV	11.9		
<b>Income</b>	<b>66.1</b>	<b>56.4</b>	<b>50.5</b>
Equipment purchase and rentals from Argas	4.4	6.2	8.7
Charter expenses and ship management paid to LDA	22.0	34.3	28.1
Charter expenses from Eidesvik Seismic Vessels AS	14.6	14.6	17.3
Charter expenses from Oceanic Seismic Vessels AS	18.1	15.4	4.5
Ship management expenses from CGG Eidesvik Ship Management AS	80.3	67.8	9.0
Ship management expenses from Geofield Ship Management Services SAS	11.3		
Costs of services rendered by PT Elnusa-CGGVeritas Seismic		10.8	13.5
Purchases of Geophysical Equipment from Tronic s	5.0	10.9	8.8
Cost of services rendered by PTSC CGGV Geophysical Survey Company	42.6	23.4	
Cost of services rendered by Gardline CGG Pte Ltd	1.7	5.6	1.4
<b>Expenses</b>	<b>200.0</b>	<b>189.0</b>	<b>91.3</b>
Trade receivables from Argas	8.0	6.9	4.0
Trade receivables from PT Elnusa-CGGVeritas Seismic.	5.1	6.1	14.7
Trade receivables from PTSC CGGV Geophysical Survey Company	1.8	4.2	
Trade receivables from LDA	10.6	11.9	7.1
Trade receivables from Seabed Geosolutions BV	8.5		
<b>Trade accounts and notes receivable</b>	<b>34.0</b>	<b>29.1</b>	<b>25.8</b>
Agency arrangements with Seabed Geosolutions BV	5.0		
Agency arrangements with Argas	5.4		
<b>Other current assets</b>	<b>10.4</b>		
Loan to PTSC CGGV Geophysical Survey Company	25.0	28.3	
<b>Financial assets</b>	<b>25.0</b>	<b>28.3</b>	
Accounts payable to Argas	8.6	5.4	3.0
Accounts payable to LDA		2.7	3.9
Accounts payable to Spectrum ASA		0.9	3.4
Accounts payable to PTSC CGGV Geophysical Survey Company	10.2	10.9	
Accounts payable to PT Elnusa-CGGVeritas Seismic			12.9
Accounts payable to Seabed Geosolutions BV	2.6		
<b>Trade accounts and notes payables</b>	<b>21.4</b>	<b>19.9</b>	<b>23.2</b>
Agency arrangements with Seabed Geosolutions BV	15.4		
Agency arrangements with Argas	5.4		
<b>Other current liabilities</b>	<b>20.8</b>		

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Finance lease debt to Eidesvik Seismic Vessels AS	10.9	11.7	12.4
Finance lease debt to Oceanic Seismic Vessels AS	9.0	9.6	10.2
<b>Financial liabilities</b>	<b>19.9</b>	<b>21.3</b>	<b>22.6</b>
Future leases commitments to Oceanic Seismic Vessels AS	163.7	180.1	149.3
Future leases commitments to Eidesvik Seismic Vessels AS	139.9	155.9	172.5
Future ship management costs to LDA net		4.6	8.2
Future ship management costs to CGG Eidesvik Ship Management AS	241.9	222.9	258.2
Future ship management costs to GeofieLD Ship Management SAS	12.2		
<b>Contractual Obligations</b>	<b>557.5</b>	<b>563.5</b>	<b>588.2</b>

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Louis Dreyfus Armateurs ( LDA ) provides ship management services for a portion of our fleet. In addition, LDA was the owner, together with the Group, of Geomar which owns of the seismic vessel *CGG Alizé* (note 2). Geomar provides vessel charter services to LDA.

Argas, Eidesvik Seismic Vessels AS, Oceanic Seismic Vessels AS, Gardline CGG Pte Ltd., CGG Eidesvik Ship Management AS, PTSC CGGV Geophysical Survey Company, Spectrum ASA, PT Elnusa-CGGVeritas Seismic, Geofield Ship Management Services SAS and Seabed Geosolutions BV are companies accounted for under the equity method. Tronic s is 16% owned by the Group.

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

**NOTE 28 SUPPLEMENTARY CASH FLOW INFORMATION**

Depreciation and amortization include US\$640 million of impairment of goodwill and US\$126 million of impairment of other assets (see note 21). In 2012, depreciation and amortization included US\$30 million impairment loss related to the Veritas trade name.

Net gain on disposal of fixed assets includes a US\$84.5 million gain arising from our contribution of shallow-water and OBC assets to the joint venture Seabed Geosolutions BV (see note 2).

Acquisition in 2013 is mainly related to the Fugro Geoscience Division. On January 31, 2013, based on a 703 million gross payment, we paid a total consideration of US\$937.6 million (including US\$8.8 million cash contributed to our Seabed joint venture), net of US\$23.6 million of cash acquired. The airborne activity was acquired on September 2, 2013 and was financed by the vendor loan granted by Fugro. Final adjustments, notably for actual levels of working capital, indebtedness and cash position lead to a subsequent cash refund of US\$5.1 million from Fugro to CGG. Overall, we paid a total net consideration of US\$933.0 million for the whole Fugro transaction.

Acquisitions in 2012 included US\$52.5 million net investment in Geophysical Research Corporation, LLC ( GRC ). Acquisitions in 2011 included US\$4.8 million convertible bond in Spectrum ASA, US\$4.5 million convertible bond in Oceanic Seismic Vessels AS and US\$0.8 million investment in Petrodata Consulting LLC.

Proceeds from disposal of tangible and intangible assets in 2011 mainly corresponded to the disposal of our 2D marine multi-client library paid in cash by Spectrum ASA.

Proceeds from disposal of financial assets in 2013 mainly relate to the sale of our 10.14% stake in Spectrum ASA. Proceeds from disposal of financial assets in 2012 mainly related to the sale of an 18.82% stake in Spectrum ASA. In 2011, they corresponded mainly to the disposal of 33% of our investment in Cybernetix.

The financial expenses paid include mainly fees and interests related to the Senior Notes, the convertible bonds and other facilities (see note 13).

The impact of changes in exchange rate on financial items corresponds notably to the elimination of the unrealized exchange gains (losses) resulting from the gross financial debt in US dollars located in those subsidiaries whose functional currency is euro.

Non-cash investing and financing transactions that are excluded from the consolidated statements of cash flows consisted of the following:

	Year ended December 31,	
	2012	2011
	(restated)	(restated)
	(In millions of US dollars)	
Equipment acquired under finance leases	2.8	29.1

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The cash and cash equivalents are composed as follows:

	Year ended December 31,		
	2013	2012 (restated)	2011 (restated)
	(In millions of US dollars)		
Cash	439.9	952.5	431.9
Cash equivalents	90.1	567.7	99.5
<b>Total cash and cash equivalents</b>	<b>530.0</b>	<b>1,520.2</b>	<b>531.4</b>

Cash and Cash equivalents include trapped cash amounting to US\$92.4 million. Trapped cash means any cash and cash equivalent held by a subsidiary that operates in a country where exchange controls or other legal restrictions apply when the balances are not available for general use by the Group (cash in subsidiaries not available at Group level).

**NOTE 29 EARNINGS PER SHARE**

	Year		
	2013	2012 (restated) <sup>(4)</sup>	2011 (restated) <sup>(4)</sup>
	(in millions of US\$, excepted per share data)		
Net income attributable to shareholders <sup>(a)</sup>	(698.8)	75.2	(27.1)
Less financial expenses on convertible bond, net of tax	36.2	21.7	18.9
Adjusted net income attributable to shareholders for diluted earnings per shares <sup>(b)</sup>	(662.6)	96.9	(8.2)
<b>Effect of dilution</b>			
Ordinary shares outstanding at the beginning of the year <sup>(c)</sup>	176,392,225	158,665,347	158,293,583
Weighted average number of ordinary shares outstanding during the year <sup>(d)</sup>	342,764	3,412,261	277,740
Weighted average number of ordinary shares outstanding <sup>(e)=(c)+(d)</sup>	176,734,989	162,077,608	158,571,323
Dilutive potential shares from 2006 stock options	(1)	(1)	(1)
Dilutive potential shares from 2007 stock options	(1)	(1)	(1)
Dilutive potential shares from 2008 stock options	(1)	(1)	(1)
Dilutive potential shares from 2009 stock options	(2)	586,385	(2)
Dilutive potential shares from 2010 stock options	(2)	241,517	(2)
Dilutive potential shares from 2011 stock options	(1)	(1)	
Dilutive potential shares from 2012 stock options			
Dilutive potential shares from 2013 stock options			
Total dilutive potential shares from stock options		827,902	
Dilutive potential shares from 2011 performance shares allocation	(2)	236,423	(2)
Dilutive potential shares from 2012 performance shares allocation	(2)	267,509	(2)
Dilutive potential shares from 2013 performance shares allocation	(2)		
Total dilutive potential shares from performance shares allocation		503,932	
Dilutive potential shares from Convertible bonds 2011	(2)	(3)	(2)
Dilutive potential shares from Convertible bonds 2012	(2)	(3)	
Dilutive weighted average number of shares outstanding adjusted when dilutive <sup>(f)</sup>	176,734,989	163,409,442	158,571,323
<b>Earnings per share</b>			
<b>Basic<sup>(a)/(e)</sup></b>	<b>(3.95)</b>	<b>0.46</b>	<b>(0.17)</b>
<b>Diluted<sup>(b)/(f)</sup></b>	<b>(3.95)</b>	<b>0.46</b>	<b>(0.17)</b>

- (1) *Exercise price of these stock options was higher than the average market price of the underlying shares.*
- (2) *As our net result was a loss, stock options, performance shares plans and convertible bonds had an anti-dilutive effect; as a consequence, potential shares linked to those instruments were not taken into account in the dilutive weighted average number of shares or in the calculation of diluted loss per share.*
- (3) *Convertible bonds had an accretive effect (increase of our earning per share); as a consequence, potential shares linked to those instruments were not taken into account in the dilutive weighted average number of shares or in the calculation of diluted income per share.*
- (4) *Restatement related to IAS19 revised see note 1 Change in Accounting Policies*

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As a result of the 2012 CGG SA capital increase via an offering of preferential subscription rights to existing shareholders, the calculation of basic and diluted earnings per shares for 2012 and 2011 has been adjusted retrospectively. Number of ordinary shares outstanding has been adjusted to reflect the proportionate change in the number of shares.

**NOTE 30 SUBSEQUENT EVENTS**

No significant subsequent event.

**NOTE 31 LIST OF PRINCIPAL CONSOLIDATED SUBSIDIARIES AS OF DECEMBER 31, 2013**

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 percentage of control in the Company.

Number <sup>(a)</sup>	Companies Names	Head Office	% of interest
	CGG Holding BV	Amsterdam, The Netherlands	100.0
	CGG Marine BV	Amsterdam, The Netherlands	100.0
	CGG Services Ressources BV	Amsterdam, The Netherlands	100.0
	CGG Data Management (Netherlands) B.V. <sup>(2)</sup>	Montfoort, The Netherlands	100.0
	CGG Jason (Netherlands) BV <sup>(2)</sup>	Gravenhague, The Netherlands	100.0
	De Regt Marine Cables BV <sup>(2)</sup>	Leidschendam, The Netherlands	100.0
403 256 944	CGG Services SA	Massy, France	100.0
410 072 110	CGG Explo SARL	Massy, France	100.0
413 926 320	Geomar SAS <sup>(1)</sup>	Paris, France	49.0
	CGG Electromagnetics (Italy) Srl <sup>(2)</sup>	Milan, Italy	100.0
	CGG International SA	Geneva, Switzerland	100.0
	CGG Data Services AG <sup>(2)</sup>	Zug, Switzerland	100.0
	CGG Geoscience GmbH <sup>(2)</sup>	Zug, Switzerland	100.0
	Wavefield Inseis AS	Bergen, Norway	100.0
	CGG Marine Resources Norge AS	Hovik, Norway	100.0
	CGG Geo Vessels AS <sup>(2)</sup>	Bergen, Norway	100.0
	CGG Marine (Norway) AS <sup>(2)</sup>	Oslo, Norway	100.0
	CGG Seismic Imaging (Norway)AS <sup>(2)</sup>	Oslo, Norway	100.0
	CGG Services (Norway) AS	Oslo, Norway	100.0
	Profocus Systems AS <sup>(2)</sup>	Fyllingsdalen, Norway	100.0
	Robertson Geolab Nor AS <sup>(2)</sup>	Trondheim, Norway	100.0
	Exploration Vessel Resources AS	Bergen, Norway	100.0
	Exploration Investment Resources II AS	Bergen, Norway	100.0
	Exploration Vessel Resources II AS	Bergen, Norway	100.0
	CGG Services (UK) Ltd.	Crawley, United Kingdom	100.0
	CGG Data Management (UK) Limited <sup>(2)</sup>	Conwy, United Kingdom	100.0
	CGG Jason (UK) Limited <sup>(2)</sup>	Wallingford, United Kingdom	100.0
	CGG NPA Satellite Mapping Limited <sup>(2)</sup>	Edenbridge, United Kingdom	100.0
	CGG Seismic Imaging (UK) Limited <sup>(2)</sup>	Swanley, United Kingdom	100.0
	Robertson (UK) Limited <sup>(2)</sup>	Llandudno, United Kingdom	100.0
	Robertson Geospec International <sup>(2)</sup>	Llandudno, United Kingdom	100.0
	Veritas Caspian LLP <sup>(1)</sup>	Almaty, Kazakhstan	50.0
	CGG do Brasil Participações Ltda	Rio do Janeiro, Brazil	100.0
	Veritas do Brasil Ltda.	Rio do Janeiro, Brazil	100.0
	LASA Prospeccoes S.A. <sup>(2)</sup>	Rio do Janeiro, Brazil	100.0



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Siren			
Number <sup>(a)</sup>	Companies Names	Head Office	% of interest
	Geomag SA Prospeccoes Aerogeofisicas <sup>(2)</sup>	Rio do Janeiro, Brazil	100.0
	CGGVeritas Services de Mexico SA de CV	Mexico City, Mexico	100.0
	CGG Geoscience de Mexico SA de CV <sup>(2)</sup>	Mexico City, Mexico	100.0
	Exgeo CA	Caracas, Venezuela	100.0
	CGG Holding (US) Inc	Delaware, United States	100.0
	CGG Services (US) Inc.	Delaware, United States	100.0
	CGG Land (US) Inc.	Delaware, United States	100.0
	CGG Jason (US) Inc. <sup>(2)</sup>	Houston, United States	100.0
	CGG Canada Services Ltd.	Calgary, Canada	100.0
	Viking Maritime Inc.	Houston, United States	100.0
	CGG Services (Canada) Inc.	Alberta, Canada	100.0
	Hampson-Russell Ltd.	Alberta, Canada	100.0
	CGG Services (Australia) Pty. Ltd.	Perth, Australia	100.0
	CGG Seismic Imaging (Australia) Pty Ltd <sup>(2)</sup>	Perth, Australia	100.0
	CGG Marine (Australia) Pty Ltd <sup>(2)</sup>	Perth, Australia	100.0
	CGG Jason (Australia) Pty Ltd. <sup>(2)</sup>	Perth, Australia	100.0
	CGG Ground Geophysics (Australia) Pty Ltd. <sup>(2)</sup>	Perth, Australia	100.0
	PT CGG Services Indonesia <sup>(1)</sup>	Djakarta, Indonesia	95.0
	CGG Services India Private Ltd.	Navi Mumbai, India	100.0
	CGGVeritas Technology Services (Beijing) Co. Ltd.	Beijing, China	100.0
	CGG Geoscience (Beijing) Ltd <sup>(2)</sup>	Beijing, China	100.0
	CGG Services (Singapore) Pte Ltd	Singapore	100.0
	Ardiseis FZCO	Dubai, United Arab Emirates	51.0
	CGG Vostok	Moscow, Russia	100.0
	CGG (Nigeria) Ltd.	Lagos, Nigeria	100.0
	CGG Airborne Survey (Pty) Ltd <sup>(2)</sup>	Johannesburg, South Africa	100.0
866 800 154	Sercel Holding SA	Carquefou, France	100.0
378 040 497	Sercel SA	Carquefou, France	100.0
	Sercel England Ltd.	Edinburgh, United Kingdom	100.0
	Sercel-GRC	Houston, United States	100.0
	Optoplan AS	Trondheim, Norway	100.0
	Sercel Inc.	Houston, United States	100.0
	Sercel Canada Ltd.	Fredericton, Canada	100.0
	Sercel Australia Pty. Ltd.	Sydney, Australia	100.0
	Xian Sercel Petroleum Exploration Instrument Co. Ltd. <sup>(1)</sup>	Xian, China	51.0
	Sercel (Beijing) Technological Services Co. Ltd.	Beijing, China	100.0
	Sercel Singapore Pte Ltd.	Singapore	100.0
	De Regt Germany Gmbh	Dortmund, Germany	100.0

<sup>(a)</sup> Siren number is an individual identification number for company registration purposes under French law.

<sup>(1)</sup> % of control for these subsidiaries amount to 100%. Non-Controlling interests are not significant.

<sup>(2)</sup> New entities acquired from Fugro.



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At December 31, 2013 the obligations to pay our outstanding Senior Notes are guaranteed by certain subsidiaries: CGG Canada Services Ltd, CGG Marine Resources Norge AS, CGG Holding (U.S.) Inc, Alitheia Resources Inc, CGG Land (U.S.) Inc., CGG Services (U.S.) Inc., Veritas Geophysical (Mexico) LLC, Veritas Investments Inc., Viking Maritime Inc., CGG Marine BV, CGG Holding BV as the Services guarantors , and Sercel Inc., Sercel Australia Pty Ltd, Sercel Canada Ltd and Sercel-GRC as the Equipment guarantors .

The following table presents condensed consolidated financial information in IFRS for the year ended December 31, 2013 for the Company, the Guarantor subsidiaries, the Non-Guarantor subsidiaries and the Eliminations to arrive at CGG on a consolidated basis.

	CGG	Services Guarantors	Equipment Guarantors	Non Guarantors	Consolidation Adjustments	Group Consolidated
	(In millions of US dollars)					
Goodwill		2,210.6	91.6	181.0		2,483.2
Intangible assets (including multi-client surveys)	26.3	652.6	30.8	759.8	(197.9)	1,271.6
Property, plant and equipment	112.2	740.6	39.4	944.4	(278.8)	1,557.8
Investment in affiliates	4,505.2	1,938.0	6.1	504.2	(6,953.5)	
Other non-current assets	2,440.2	582.1	7.6	482.7	(2,916.4)	596.2
Current assets	359.9	1,080.7	300.7	2,847.3	(2,234.6)	2,354.0
<b>Total assets</b>	<b>7,443.8</b>	<b>7,204.6</b>	<b>476.2</b>	<b>5,719.4</b>	<b>(12,581.2)</b>	<b>8,262.8</b>
Financial debt (including bank overdrafts, current and non-current portion)	2,504.0	2,381.1	0.2	734.8	(2,872.5)	2,747.6
Other non-current liabilities (excluding financial debt)	26.5	98.2	24.3	194.7	(10.6)	333.1
Current liabilities (excluding current portion of debt)	1,023.2	693.7	121.8	1,872.0	(2,418.7)	1,292.0
<b>Total liabilities (excluding equity)</b>	<b>3,553.7</b>	<b>3,173.0</b>	<b>146.3</b>	<b>2,801.5</b>	<b>(5,301.8)</b>	<b>4,372.7</b>
<b>Equity</b>	<b>3,890.1</b>	<b>4,031.6</b>	<b>329.9</b>	<b>2,917.9</b>	<b>(7,279.4)</b>	<b>3,890.1</b>
Operating revenues	110.8	914.3	440.2	4,539.5	(2,239.0)	3,765.8
Depreciation and amortization	7.2	1,133.6	12.5	533.0	(74.6)	1,611.7
Operating income (loss)	(108.1)	(509.7)	120.1	100.1	2.7	(394.9)
Equity in income of affiliates	(234.3)	152.9		0.2	81.2	
<b>Net income (loss) group share</b>	<b>(691.2)</b>	<b>(559.8)</b>	<b>83.0</b>	<b>75.3</b>	<b>401.5</b>	<b>(691.2)</b>
Cash flow from operating activities	798.9	194.3	7.8	467.7	(561.0)	907.7
Cash flow from investing activities	(1,295.4)	(1,452.9)	(10.5)	(417.7)	1,457.0	(1,719.5)
Cash flow from financing activities	(526.8)	1,283.9	(2.1)	(37.4)	(914.7)	(197.1)
Effect of exchange rates on cash					21.4	21.4
Impact of changes in consolidation scope					(2.7)	(2.7)
<b>Cash at opening</b>	<b>1,289.8</b>	<b>67.6</b>	<b>8.8</b>	<b>154.0</b>		<b>1,520.2</b>
<b>Cash at closing</b>	<b>266.5</b>	<b>92.9</b>	<b>4.0</b>	<b>166.6</b>		<b>530.0</b>



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The following tables present condensed consolidated financial information in IFRS for the year ended December 31, 2012 (restated) and December 31, 2011 (restated).

	CGG	Services Guarantors	Equipment Guarantors (In millions of US dollars)	Non Guarantors	Consolidation Adjustments	Group Consolidated
Goodwill		2,176.6	94.0	144.9		2,415.5
Intangible assets (including multi-client surveys)	29.0	539.6	32.6	462.7	(129.0)	934.9
Property, plant and equipment	106.1	655.0	41.7	604.9	(248.2)	1,159.5
Investment in affiliates	5,174.8	1,552.6	5.9	230.0	(6,963.3)	
Other non-current assets	1,082.2	117.7	7.3	248.4	(1,106.0)	349.6
Current assets	1,396.4	1,220.2	256.5	3,443.6	(2,843.4)	3,473.3
<b>Total assets</b>	<b>7,788.5</b>	<b>6,261.7</b>	<b>438.0</b>	<b>5,134.5</b>	<b>(11,289.9)</b>	<b>8,332.8</b>
Financial debt (including bank overdrafts, current and non-current portion)	2,223.3	1,096.9	0.4	124.6	(1,140.0)	2,305.2
Other non-current liabilities (excluding financial debt)	31.7	85.2	29.9	175.2	(45.9)	276.1
Current liabilities (excluding current portion of debt)	951.6	472.7	153.2	2,435.1	(2,843.0)	1,169.6
<b>Total liabilities (excluding equity)</b>	<b>3,206.6</b>	<b>1,654.8</b>	<b>183.5</b>	<b>2,734.9</b>	<b>(4,028.9)</b>	<b>3,750.9</b>
<b>Equity</b>	<b>4,581.9</b>	<b>4,606.9</b>	<b>254.5</b>	<b>2,399.6</b>	<b>(7,261.0)</b>	<b>4,581.9</b>
Operating revenues	100.6	810.1	560.2	3,976.9	(2,037.3)	3,410.5
Depreciation and amortization	7.0	403.2	12.5	347.2	(61.0)	708.9
Operating income (loss)	(52.7)	120.8	125.6	209.3	(72.4)	330.6
Equity in income of affiliates	31.7	101.8		0.2	(133.7)	
<b>Net income (loss) group share</b>	<b>92.4</b>	<b>236.3</b>	<b>87.1</b>	<b>150.8</b>	<b>(474.2)</b>	<b>92.4</b>
Cash flow from operating activities	573.0	75.2	67.2	699.5	(494.0)	920.9
Cash flow from investing activities	27.1	(487.5)	(62.9)	(368.1)	146.8	(744.6)
Cash flow from financing activities	348.9	390.4	(3.8)	(270.2)	329.5	794.8
Effect of exchange rates on cash					17.7	17.7
<b>Cash at opening</b>	<b>340.8</b>	<b>89.5</b>	<b>8.3</b>	<b>92.8</b>		<b>531.4</b>
<b>Cash at closing</b>	<b>1,289.8</b>	<b>67.6</b>	<b>8.8</b>	<b>154.0</b>		<b>1,520.2</b>

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	CGG	Services Guarantors	Equipment Guarantors (In millions of US dollars)	Non Guarantors	Consolidation Adjustments	Group Consolidated
Goodwill		2,476.3	70.5	141.4		2,688.2
Intangible assets (including multi-client surveys)	24.7	486.6	3.1	460.0	(109.3)	865.1
Property, plant and equipment	111.8	590.4	48.9	632.1	(200.0)	1,183.2
Investment in affiliates	4,601.8	1,471.5	5.3	234.3	(6,312.9)	
Other non-current assets	1,194.0	137.7	4.3	100.8	(1,091.6)	345.2
Current assets	495.4	656.4	178.9	2,709.0	(1,929.9)	2,109.8
<b>Total assets</b>	<b>6,427.7</b>	<b>5,818.9</b>	<b>311.0</b>	<b>4,277.6</b>	<b>(9,643.7)</b>	<b>7,191.5</b>
Financial debt (including bank overdrafts, current and non-current portion)	1,819.9	1,094.3	0.8	246.1	(1,219.0)	1,942.1
Other non-current liabilities (excluding financial debt)	36.4	94.6	18.0	168.0	(39.0)	278.0
Current liabilities (excluding current portion of debt)	689.7	551.8	52.5	1,621.3	(1,825.6)	1,089.7
<b>Total liabilities (excluding equity)</b>	<b>2,546.0</b>	<b>1,740.7</b>	<b>71.3</b>	<b>2,035.4</b>	<b>(3,083.6)</b>	<b>3,309.8</b>
<b>Equity</b>	<b>3,881.7</b>	<b>4,078.2</b>	<b>239.7</b>	<b>2,242.2</b>	<b>(6,560.1)</b>	<b>3,881.7</b>
Operating revenues	14.6	784.1	524.8	3,443.1	(1,585.7)	3,180.9
Depreciation and amortization	4.9	393.8	17.4	263.3	(50.4)	629.0
Operating income (loss)	(36.6)	125.8	150.6	587.3	(619.9)	207.2
Equity in income of affiliates	851.6	(155.8)		0.4	(696.2)	
<b>Net income (loss) group share</b>	<b>(13.2)</b>	<b>257.5</b>	<b>102.6</b>	<b>763.5</b>	<b>(1,123.6)</b>	<b>(13.2)</b>
Cash flow from operating activities	1,017.7	520.4	109.9	(47.0)	(811.1)	789.9
Cash flow from investing activities	(502.9)	(438.7)	(7.0)	(36.7)	446.8	(538.5)
Cash flow from financing activities	(456.3)	(8.1)	(116.2)	47.5	371.2	(161.9)
Effect of exchange rates on cash					(6.9)	(6.9)
<b>Cash at opening</b>	<b>282.3</b>	<b>15.9</b>	<b>21.6</b>	<b>129.0</b>		<b>448.8</b>
<b>Cash at closing</b>	<b>340.8</b>	<b>89.5</b>	<b>8.3</b>	<b>92.8</b>		<b>531.4</b>