(1)"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.
(2)"Gross financial debt" is defined as financial debt, including current maturities and bank overdrafts.

	At December 31,				
	2017	2016	2015	2014	2013
	(In millions of US$ except per ratios)				
Other financial historical data and other ratios:					
EBIT(1) before RC(6)	(97.3)	(220.9)	82.3	160.2	423.1
EBIT(1) after RC(6)	(283.6)	(404.7)	(1,136.2)	(779.2)	(394.3)
EBITDAS(2) before RC(6)	372.4	327.9	660.6	993.7	1,187.0
EBITDAS(2) after RC(6)	186.1	273.6	452.8	775.7	1,139.7
Operating income before RC(6)	(77.2)	(212.7)	60.9	241.9	422.5
Operating income after RC(6)	(263.5)	(396.5)	(1,157.6)	(697.5)	(394.9)
Free-cash flow before RC(6)	(95.7)	(6.7)	(8.9)	(76.4)	5.0
Free-cash flow after RC(6)	(197.0)	(174.0)	(129.7)	(137.2)	(55.8)
Capital expenditures(3)	81.2	104.5	145.6	281.9	347.2
Investments in multi-client surveys, net cash	251.0	295.1	284.6	583.3	479.4
Net financial debt(4)	2,639.9	2,311.6	2,499.5	2,419.8	2,217.7
Gross financial debt(5) / EBITDAS(2)	15.9x	10.4x	6.4x	3.6x	2.4x
Net financial debt(4) / EBITDAS(2)	14.2x	8.4x	5.5x	3.1x	1.9x
EBITDAS(2) / Cost of financial debt, net	0.9x	1.6x	2.5x	3.9x	5.9x

(1)Earnings before interest and tax ("EBIT") is defined as operating income plus our share of income in companies accounted for under the equity method. As a complement to Operating Income EBIT may be used by management as a performance indicator for segments 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.

(2)"EBITDAS" is defined as earnings before interest, tax, income from equity affiliates, 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 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.

(3)"Capital expenditures" is defined as "total capital expenditures (including variation of fixed assets suppliers, excluding multi-client surveys)" from our statement of cash flows.

(4)"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.

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

(6)"RC" is defined as restructuring costs related to the Transformation Plan. In 2017, 2016, 2015 and 2014, the restructuring costs correspond to the costs related to the industrial transformation of the Group and the Financial Restructuring, including the cost of downsizing the Group's fleet, changes of ownership and renegotiation of the vessel chartering contracts, personnel costs, site closure costs and fees and expenses related to the Financial Restructuring. The restructuring costs for 2013 relate to our acquisition of most of the Geoscience Division of Fugro.

Capitalization and Indebtedness

Not applicable

Reasons for the Offer and Use of Proceeds

Not applicable

Capitalization and Indebtedness

Not applicable

Reasons for the Offer and Use of Proceeds

Not applicable

Risk Factors

RISKS RELATED TO OUR FINANCIAL RESTRUCTURING

Certain of our creditors have appealed the judgment approving the Safeguard Plan.

The Company's draft Safeguard Plan was approved by the bank and financial institutions' committee and the general meeting of bondholders on July 28, 2017, and the resolutions necessary for its implementation were approved by the shareholders of CGG S.A. during the extraordinary general meeting convened on second notice on November 13, 2017.

The Commercial Court of Paris approved the Company's Safeguard Plan by a ruling on December 1, 2017.

Articles L. 661-1 I(6), R. 661-3 and R. 662-1 of the French Commercial Code provide for the possibility of appealing a judgment approving a safeguard plan within 10 days of the publication of the judgment, which may be potentially extended to two months, taking into account the distance (which period, in the case of our safeguard proceedings, has expired), provided by Article 643 of the French Civil Procedure Code (except in the case of the public prosecutor, for whom the 10-day period runs from the date of receipt of a notification of the judgment). Judgments may be appealed by the obligor, the trustee, the receiver (*mandataire judiciaire*), the works council (*comité d'entreprise*) or, in its absence, the staff representatives, and the public prosecutor. Appeals may also be filed by individual creditors, provided they have voiced an objection to the voting procedure at the bank and financial institutions' committee or at the general meeting of bondholders. Only an appeal by the public prosecutor automatically causes the proceeding to be suspended.

Also, articles L. 661-3 and R. 661-2 of the French Commercial Code govern how third parties may object to a judgment approving a safeguard plan. Third parties may only challenge a decision approving the safeguard plan, but not a decision rejecting it. Such recourse may be filed by any person with an interest in the matter, provided that they were not a party to and were not represented in the judgment they challenge and that they rely on specific remedies or on the fact that they were fraudulently deprived of their rights. Challenges by third parties must be filed with the clerk of the court no later than ten days after the publication of the judgment in the *Bulletin officiel des annonces civiles et commerciales* (BODACC), which period may be extended up to two months, taking into account the distance (which period, in the case of our safeguard proceedings, expired on March 2, 2018), as provided for in article 643 of the French Code of Civil Procedure.

On August 4, 2017, certain holders of convertible bonds (Keren Finance, Delta Alternative Management, Schelcher Prince Gestion, La Financière de l'Europe, Ellipsis Asset Management and HMG Finance) filed a claim against the Safeguard Plan approved by the bank and financial institutions committee and the general meeting of bondholders on July 28, 2017.

Without disputing the results of the general meeting of bondholders' vote, these holders of convertible bonds challenged the treatment of their claims under the Safeguard Plan, arguing that the differences in treatment between the holders of convertible bonds and the holders of Senior Notes were not justified by the differences in their situations and would be, in any event, disproportionate.

On December 1, 2017, the Commercial Court of Paris declared that the claims filed by the holders of convertible bonds were inadmissible and approved the Safeguard Plan.

Four of these holders of convertible bonds (Delta Alternative Management, Schelcher Prince Gestion, La Financière de l'Europe and HMG Finance) have appealed against the judgment that rejected the admissibility of their claims, which appeal shall be examined by the Court of Appeal of Paris during the hearing of pleadings on March 29, 2018.

As this appeal does not stay implementation, the restructuring transactions provided for under the Safeguard Plan have been implemented in accordance with the expected time table.

If the Court of Appeal of Paris were to approve the appellants' requests and reverse the judgment approving the Safeguard Plan, this decision could theoretically lead to the cancellation of the implementation of the Safeguard Plan with retroactive effect. However, such a cancellation may be impossible to implement in the context of a transaction which has involved a public offering.

As of the date of this annual report, no assurance can be given concerning the decision of Court of Appeal of Paris regarding the aforementioned appeal.

We remain subject to the terms and conditions of the Safeguard Plan and our new financing agreements.

Until November 30, 2027, we must comply with the terms and conditions of the Safeguard Plan, including, among others, debt maturities and, more generally, the terms and conditions of the new financing agreements. For more details on these new financing agreements, please refer to risk factor entitled "— Risks related to our indebtedness" below and "Item 4 — Information on the Company — History and development of the Company — Financial restructuring process".

In case of our non-compliance with the terms and conditions of the Safeguard Plan, the Commercial Court of Paris may decide to cancel the Safeguard Plan after having obtained the opinion of the public prosecutor and the trustee (*commissaires à l'exécution*) upon presentation of its report. If we were to be insolvent (*cessation des paiements*) at that time or during the implementation of the Safeguard Plan, the Commercial Court of Paris would open a judicial reorganization proceeding (*redressement judiciaire*), or if such reorganization was obviously impossible, a judicial liquidation proceeding (*liquidation judiciaire*) (after, as the case may be, having cancelled the Safeguard Plan).

Taking into account the undertakings we made pursuant to the letters exchanged with the *Direction Générale des Entreprises*, which were acknowledged in the judgment approving the Safeguard Plan and described in "Item 4 — Information on the Company — History and development of the Company — Financial restructuring process", we could be limited in our ability to adapt to market developments and, more generally, may have less flexibility in our operational management. In addition, certain amendments to the Safeguard Plan may be necessary.

To the extent the contemplated amendments to the Safeguard Plan would not be considered material for the purposes and means of the plan within the meaning of article L.626-26 of the French Commercial Code, we may be able to make such amendments, although any amendment to the new financing agreements would require the consent of the contractually required majority creditors who are parties to those agreements.

Nevertheless, any material amendment within the meaning of article L.626-26 of the French Commercial Code would first require the prior authorization of the banks and financial institutions committee and the general meeting of bondholders, and the subsequent approval of the Commercial Court of Paris.

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 recent periods, economic contractions and uncertainty have weakened demand for oil and natural gas while the introduction of new production capacities have increased supply, resulting in lower prices, and consequently a reduction in the levels of exploration for hydrocarbons and demand for our products and services. These developments have had a significant adverse effect on our business, revenue and liquidity resulting not only in a decline in activity levels but also in the prices we can charge. The price of Brent decreased from US$110.80 per barrel as of December 31, 2013 to US$37.28 per barrel as of December 31, 2015 and US$56.82 as of December 31, 2016 to reach US$66.87 as of December 31, 2017. It is difficult to predict how long the current economic conditions and imbalance between supply and demand will persist, whether oil prices will remain at a low level, whether the current market conditions will deteriorate further, and which of our products and services may be adversely affected. The reduction in demand for our products and services and the resulting pressure on pricing in our industry could continue to negatively affect our business, results of operations, financial condition and cash flows.

Uncertainty about the general economic situation and/or the mid-term level of hydrocarbons prices 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 and oil industry climate may lead customers to cancel, delay or choose not to renew orders or leave suppliers unable to provide goods and services as agreed. Our governmental 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, financial condition and results of 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;
- difficulties in protection and enforcement of intellectual property rights;
- increased risk of fraud and political corruption;
- changes in legal and regulatory requirements;
- seizure, expropriation, nationalization or detention of assets, or renegotiation or nullification of existing contracts;
- foreign exchange restrictions, import/export quotas, sanctions, boycotts and embargoes 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 movement of qualified crew members or specialized equipment to 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, economic and legal environment is less stable. Our risk management procedures, internal controls and policies may not be adequate to identify, evaluate and effectively manage all the risks that we may encounter. Any failure of these systems could materially adversely impact our business, results of operations and financial conditions. 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 and/ or European Union authorities’ 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. Thus, in the case of U.S. legislation, non-U.S. persons employed by our separately incorporated non-U.S. entities may conduct business in some foreign jurisdictions that are subject to U.S. trade embargoes and sanctions by the U.S. Office of Foreign Assets Control (“OFAC”), including countries that have been designated by the U.S. 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 U.S. and European laws. However, failure to comply with U.S. or European 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. In addition, our presence in these countries could reduce demand for our securities among certain investors.

Certain of our clients and suppliers, and certain tax, social security or customs authorities may request us or certain of our subsidiaries or affiliates to post performance bonds or guarantees issued by financial institutions, including in the form of standby letters of credit, in order to guarantee our or their legal or contractual obligations. As of December 31, 2017, the amount of bank guarantees or guarantees granted by us amounted to approximately US$597 million (excluding the guarantees granted to financial institutions and the guarantees related to the bareboat charters undertakings). Our financial position has led financial institutions to revise their policies by phasing out existing guarantees and requiring the establishment of cash collateral (or its equivalent in the relevant jurisdiction) for any new guarantee or renewal of existing guarantees. As of December 31, 2017, the amount of the guarantees granted by financial institutions in favor of our clients amounted to approximately US$69 million. As of the same date, the amount of the cash collateral (or its equivalent) we had implemented amounted to approximately US$21 million (reported in the financial statements as fixed assets and financial investments).

However, there is a risk that we will not be able to provide these performance bonds or guarantees in the amounts or durations required or for the benefit of the necessary parties. Failure to comply with these requests could reduce our capacity to conduct business or perform our contracts. In addition, if we 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 codes of ethics, but there is a risk that we, our subsidiaries or affiliates or our or their respective officers, directors, employees or agents may act in violation of such codes and applicable laws, including the Foreign Corrupt Practices Act of 1977. We cannot always prevent or detect corrupt or unethical practices by third parties, such as subcontractors, agents, partners or customers, which may result in substantial fines and penalties, in addition to reputational damage to us. Any such violations could result in substantial civil and criminal penalties and might materially adversely affect our business, results of operations, financial condition or reputation.

Further, operations in developing countries are subject to decrees, laws, regulations and court decisions that may change frequently or be retroactively applied and could cause us to incur unanticipated or unrecoverable costs or delays. The legal systems in developing countries may not always be fully developed and courts or other governmental agencies in these countries may interpret laws, regulations or court decisions in a manner which might be considered inconsistent or inequitable in developed countries, and may be influenced by factors other than legal merits, which could have a material adverse effect on our business, financial condition and results of operations.

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. If similar transactions were to be contemplated or completed in the future, they could present various financial and management-related risks that could be material, such as acquisition costs and delays or inability to close acquisitions, including as a result of third-party consents or approvals, 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 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$1,223 million as of December 31, 2016 and US$1,234 million as of December 31, 2017 due to exchange rate variations (see note 19 to our consolidated financial statements). Goodwill is allocated to cash generating units (“CGUs”) as described in note 11 to our consolidated financial statements. 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 cold-stacking 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/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. As of December 31, 2015, in response to the continuing deterioration of market conditions and the drastic reduction of our fleet, we wrote down US$365 million of goodwill in our marine acquisition activity and US$439 million of goodwill in our Geology, Geophysics & Reservoir (“GGR”) activity, for a total of US$804 million for 2015. In 2016 and 2017, we did not write down any goodwill and the only movement in goodwill was linked to exchange rate variations. Particularly in light of our financial condition and difficult market dynamics, no assurance can be given that we will not be required to make future potentially significant goodwill write downs.

We invest significant amounts of money in acquiring and processing seismic data for multi-client surveys 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 the seismic data that we own. See note 10 to our consolidated financial statements. 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, including the market prices of oil and gas, customer demand for seismic data in our library and the availability of similar data from competitors. 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. We wrote down the value of our multi-client data library by US$23 million in the year 2017.

In addtion, there are a number of geoscience companies that create, market and license seismic data and maintain seismic libraries. Competition for acquisition of new seismic data among geoscience service providers has been historically intense and we expect this competition will continue to be intense. The above risks could have a material adverse effect on our business, results of operations or financial condition, in particular in the competitive data acquisition environment in which we operate.

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 to a significantly lesser extent, in euros, Canadian dollars, Mexican pesos, Brazilian reais, Australian dollars, Norwegian kroner, British pounds and Chinese renminbi-yuan. Historically, a significant portion of our revenues that were invoiced in currencies other than US dollars 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.

Fluctuations in the exchange rate of other currencies, particularly the euro, against the U.S. dollar, have had in the past and will have in the future a significant effect upon our results of operations. We attempt to reduce the risks associated with such exchange rate fluctuations through our hedging policy. 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. As of December 31, 2017, we estimate our annual recurring expenses in euros to be approximately €350 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 profit before tax and our shareholders’ equity by approximately US$35 million. See *“— Market and Other Risks — We are exposed to exchange rates fluctuations.”*

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 the weight of intra-group production.

We dedicate a significant part of our production capacity to intra-group sales. For example, the Marine, Land and Multi-Physics Acquisition business lines may purchase Sercel equipment as well as acquire multi-client data, to be processed by the Subsurface Imaging business line. 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 by evolving industry and regulatory standards, 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 geoscience 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. Currently accepted industry and regulatory standards are also subject to change, which may contribute to the obsolescence of our products or services. New and enhanced products and services, if introduced, may not gain market acceptance or correctly address new industry standards 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 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 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. Our customer data license and acquisition agreements also identify our proprietary, confidential information and require that such proprietary information be kept confidential. While these steps are taken to strictly maintain the confidentiality of our proprietary and trade secret information, it is difficult to ensure that unauthorized use, misappropriation or disclosure will not occur. 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 the continued service of our executive officers and other key management personnel, as well as 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. 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 our executive officers and members of our senior management, the loss of whom could materially adversely affect our business, financial condition and results of operations.

We have had losses in the past and there is no assurance we will be able to restore profitability in the coming years.

We have experienced losses in the past. In 2015, 2016 and 2017, we recorded a net loss attributable to shareholders of US$1,146.2 million, US$576.6 million and US$514.1 million, respectively. There is no assurance that we will be able to restore profitability in the coming years.

In addition, we have had in the past and may have in the future impairment losses as events or changes in circumstances occur that reduce the fair value of an asset below its book value. We may also have write-offs and non-recurring charges or restructuring costs. For 2015, 2016 and 2017, such asset impairments, write-offs and restructuring costs net of gains on sales of assets related to our Transformation Plan totaled US$1,218 million, US$184 million and US$186 million (not including the acceleration of historical issuing fees amortization for US$23 million), respectively. These losses and changes could have a material adverse effect on our business, results of operations and financial condition.

The recent French and U.S. procedures of safeguard and Chapter 11 may have affected our ability to maintain our relationships with creditors, customers, vendors, employees and other personnel and counterparties which could adversely affect our business, financial condition and results of operations.

Notwithstanding the implementation of the financial restructuring, the recent French and U.S. procedures of safeguard and Chapter 11 may have affected our relationships and our ability to negotiate favorable terms with creditors, customers, vendors, employees and other personnel and counterparties and our ability to maintain normal credit conditions with our suppliers. Moreover, public perception of our continued viability may lead to new and existing customers choosing not to enter into or continue their agreements or arrangements with us. The failure to maintain any of these important relationships could adversely affect our business, financial condition and results of operations.

We are exposed to commercial risk and counter-party risk.

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. While we seek to reduce commercial risk by monitoring our customer credit profile in 2017, our two most significant customers accounted for 10.4% and 8.6% of our consolidated revenues, compared with 6.7% and 6.4% in 2016 and 5.0% and 4.9% in 2015. The loss of any of our significant customers or deterioration in our relations with any of them could materially and adversely affect our business, results of operations and financial condition.

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 discretionary in nature and 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. In 2015 and 2016, oil and gas companies reduced their planned exploration and production spending due notably to falling oil prices, affecting demand for our products and services. Exploration and production spending remained at a low level in 2017, in light of uncertainties concerning the oil price recovery.

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

- change in supply and demand for hydrocarbons;
- worldwide political, military and economic conditions, including political developments in the Middle East and North Africa, the Ukraine crisis, economic sanctions and economic growth levels;
- the ability of non-OPEC countries to increase their oil and gas production;
- actions by the members of the Organization of the Petroleum Exporting Countries (OPEC) with respect to oil production levels and announcements of potential changes in such levels, including the failure of such countries to comply with production cuts;
- the ability of oil and gas companies to raise equity and debt financing;
- technical advances affecting energy consumption;
- laws or regulations restricting the use of fossil fuels or taxing such fuels and governmental policies regarding atmospheric emissions and use of alternative energy;
- technological developments increasing oil and gas extraction capacity or reducing costs;
- levels of oil and gas production, changes in those levels and the estimated current and future level of excess production capacity;
- the rate of depletion of existing oil and gas reserves and delays in the development of new reserves;
- more appetite for onshore activities given that offshore activities usually have a higher break-even level;
- 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;
- available pipeline, storage and other transportation capacity;
- 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;

- shareholder activism or activities by non-governmental organizations to restrict the exploration, development and production of oil and natural gas; 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, despite demand increases if, at the same time, the available production capacity in the market increases to a greater degree.

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. The recent low oil price environment has resulted in increased pricing pressure, with certain of our competitors aggressively bidding lower prices in an effort to maintain volumes. 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 further downward pressure on prices. The negative effects of the competitive environment in which we operate could have a material adverse effect on our business, financial condition and results of operations.

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

Our fleet of marine seismic acquisition vessels has evolved in the past mainly in reaction to changes in the seismic contractual market and our marine strategy. In February 2014, we announced our intention to reduce the fleet from 18 to 13 3D high-end vessels before the end of 2016 and decided in mid-2014 to accelerate the implementation of this plan to have it completed by the end of 2014. Consequently, we stopped operating the *Symphony*, the *Princess*, the *Viking II* and the *Vantage* in 2014. The *Viking II* and the *Vantage* were returned to their owner at the end of their leasing period. The *Viking* and the *Geowave Voyager* were converted into source vessels.

In February 2015, as the market environment deteriorated further, we announced our intention to reduce our operated fleet from 13 to 11 3D high-end vessels. Then in November 2015, when we announced the next step of our Transformation Plan, we stated our objective to reduce our operated fleet to five vessels, principally dedicated to multi-client production. As of December 31, 2015, our operational fleet was composed of eight 3D high-capacity vessels (12 or more streamers), one source vessel and one 3D/2D lower capacity vessel. We ceased operating the *CGG Alizé* and the *Geo Celtic* in early 2016 and the *Viking Vision* in fall 2016, which has since been returned to her owner. As of December 31, 2016, the seismic fleet operated five high-end vessels as targeted. In March 2017, we re-delivered the *Pacific Finder* to its owner and halted the operations of the *Geo Caspian* as a seismic vessel at the expiration of the charter agreement. In April 2017, we carried out certain transactions in order to change the ownership structure of our marine fleet and restructure the related financial obligations under the Nordic credit facility related thereto, and re-introduced the *Geo Coral* on April 1, 2017, as per the plan to keep the fleet at five seismic vessels. See “Item 4: Information on the Company — Contractual Data Acquisition — Marine Data Acquisition Business Line — Group’s fleet of seismic vessels” for more information.

Past fleet reductions have generated, and we expect that the current and any future reductions will generate, non-recurring charges and could hinder our operational scope in marine acquisition activity. Restructuring charges and fixed assets impairments related to fleet reduction amounted to US$288 million in 2015, US$34 million in 2016 and US$87 million in 2017 (including net income impact of US$69.4 million linked to Global Seismic Shipping AS (“GSS”) and US$12.1 million linked to the proactive management of maritime liabilities). See note 2 to our consolidated financial statements.

We have high levels of fixed costs that are incurred regardless of our level of business activity, including in relation to bareboat charters.

We have high fixed costs and seismic data acquisition activities that require substantial capital expenditures and long-term contractual commitments. 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.

We have implemented our Transformation Plan in an effort to reduce our high fixed costs in light of the difficult market environment, with a focus on high value-added activities and a reduction of our fleet to five vessels principally dedicated to multi-client activity, as well as cost saving actions and a reduction in investments. However, we cannot assure you that this plan will be sufficient to respond to market pressures, which could have a material adverse effect on our business, financial condition and results of operations.

After the implementation of the Transformation Plan, we continue to operate certain of our marine acquisition vessels under long-term bareboat charters, which generate significant fixed costs that cannot easily be reduced during the term of the charters. In 2017, we took steps to reduce our annual charter costs, as described in “Item 4: Information on the Company — Contractual Data Acquisition — Marine Data Acquisition Business Line — Group’s fleet of seismic vessels”. As a result of these measures, and as of December 31, 2017, the aggregate amount of our off-balance sheet commitment for bareboat charters for our fleet was US$460.2 million. Of this amount, US$397.0 million corresponded to vessels operated by GSS, US$13.8 million corresponded to vessels that have already been cold-stacked and US$49.4 million corresponded to other vessels we operate. These costs cannot be reduced further before the charters expire. The charters of the vessels operated by GSS expire in 2027, the last charter of the cold-stacked vessels expires in 2020 and the last charter of the other operated vessels expires in 2020. While we believe that these steps will make our marine acquisition activity more competitive, we will continue to have high levels of fixed costs in a market with historically low levels of demand and pricing, which could have a material adverse effect on our business, financial condition and results of operations.

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

Our seismic data acquisition revenues, in particular in the marine market, 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 complex laws and governmental regulations, which may adversely affect our operations or demand for our products and services in the future.

Our operations are subject to a variety of international, federal, regional, national, foreign and local laws and regulations, including for 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 comply 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 in some cases also prevent us from operating, resulting in increased crew downtime and operating losses. Further, changes in such laws and regulations could affect the demand for our products or services or result in the need to modify our services and products, which may involve substantial costs or delays in sales and could have an adverse effect on our results. 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 addition, our customers' operations are also significantly impacted by laws and regulations concerning the protection of the environment. To the extent that our customers' operations are disrupted by future laws and regulations, our business, financial condition and results of operations may be materially and adversely affected.

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 in 2010. These new regulations have had a significant financial and operational impact on oil and gas companies that carry out exploration projects in deep-water Gulf of Mexico. Our client mix could be altered in the event of a disappearance of small and medium-sized players that may not be able to bear the increased cost of compliance with complex regulations, which could decrease our sales of multi-client data.

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 or beginning our operations. Our management believes that we comply in all material respects 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 involved 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, laws or regulations intended to limit or reduce emissions of gases, such as carbon dioxide and methane, which may be contributing to climate change, or nitrogen oxides, 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. In addition, because our business depends on the level of activity in the oil and gas industry, existing or future laws and regulations related to emissions of gases and climate change, including incentives to conserve energy or use alternative energy sources, could have a negative impact on our business if such laws or regulations reduce demand for oil and gas.

We are subject to risks related to our information technology, including cyber security risks and risks of hardware and software failures.

The oil and natural gas and geothermal industries have become increasingly dependent on digital technologies to conduct certain processing activities. For example, we depend on digital technologies to perform many of our services and to process and record financial and operating data. At the same time, cyber incidents, including deliberate attacks, have increased. The U.S. government has issued public warnings that indicate that energy assets might be specific targets of cyber security threats. Our technologies, systems and networks, and those of our vendors, suppliers and other business partners, may become the target of cyberattacks or information security breaches that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction of proprietary and other information, or other disruption of business operations. In addition, certain cyber incidents, such as surveillance, may remain undetected for an extended period. Our systems for protecting against cyber security risks may not be sufficient and we have no insurance policy in place to provide coverage for cyberattacks. As cyber incidents continue to evolve, we will likely be required to expend additional resources to continue to modify or enhance our protective measures or to investigate and remediate any vulnerability to cyber incidents.

In addition, any our success depends on the efficient and uninterrupted operation of our computer and communications systems. A failure of our network or data gathering procedures could impede the processing of data, delivery of databases and services, client orders and day-to-day management of our business and could result in the corruption or loss of data. Despite any precautions we may take, damage from fire, floods, hurricanes, power loss, telecommunications failures and similar events at our computer facilities could result in interruptions in the flow of data to our servers and from our servers to our clients.

Similarly, failure by our computer environment to provide our required data communications capacity could result in interruptions in our service. In the event of a delay in the delivery of data, we could be required to transfer our data collection operations to an alternative provider of server hosting services. Such a transfer could result in significant delays in our ability to deliver our products and services to our clients and could be costly to implement. Additionally, significant delays in the planned delivery of system enhancements and improvements, or inadequate performance of the systems once they are completed, could damage our reputation and harm our business, results of operations and financial condition.

RISKS RELATED TO OUR INDEBTEDNESS

Our new debt agreements entered into in the context of the financial restructuring contain restrictive covenants that may limit our ability to respond to changes in market conditions or pursue business opportunities.

Following the completion of our financial restructuring, our borrowings are subject to the provisions of the indentures governing the first lien notes and the second lien notes, which contain restrictive covenants that limit our ability to, among others:

- incur or guarantee additional indebtedness or issue preferred shares;
- pay dividends or make other distributions;
- 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;
- sell assets or merge or consolidate with another company; and
- proceed with acquisitions or joint venture transactions.

Complying with the restrictions contained in the indenture governing the first lien notes requires us to maintain our aggregate amount of cash and cash equivalents at no less than US$185 million at the end of each financial quarter.

The requirement to 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, sell assets, fund capital expenditures, or withstand a continuing or future downturn in our business.

If we are unable to comply with the restrictions and covenants in the indentures governing the first lien notes and the second lien notes and other current and future debt agreements, we could be in 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 the first lien notes and the second lien notes or in other current or future debt agreements, 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 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.

We and our subsidiaries may incur additional debt.

We and our subsidiaries may incur additional debt (including secured debt) in the future. The terms of the indentures governing our first lien notes and second lien notes limit, but do not prohibit, us and our subsidiaries from doing so.

If new debt is added to our current debt levels, the related risks for us could intensify. See *"Our* debt adversely affects our financial health and poses risks to our liquidity".

As of December 31, 2017, we had no long term confirmed and undrawn credit lines.

Our debt may adversely affect our financial health and pose risks to our liquidity.

As of December 31, 2017, our net financial debt (defined as gross financial debt less cash and cash equivalents) amounted to US$2,640 million out of the total capital employed of US$3,190 million. Our gross financial debt, as of December 31, 2017, amounted to US$2,955 million (including €330 million related to the debt component of the convertible bonds, according to IFRS, and US$115 million of bank overdrafts and accrued interest). As of December 31, 2017, our available financial resources amounted to US$217 million (including cash, cash equivalents and marketable securities and excluding trapped cash). As of the same date, we had debt redeemable in cash or shares in the amount of US$2,620 million (defined as net financial debt less financial leases, and before IFRS accounting adjustments related to convertible bonds and issuing fees).

In the context of a difficult market environment for the seismic industry, which started during the second half of 2013 with a significant decrease in investments by our clients outside North America and intensified with the sharp decline in oil prices since the fall of 2014, we confronted a reduction in the demand for our products and services and significant downward pressure on pricing, which ultimately led to heavy losses in our activities.

In light of the delay in market recovery and the persisting deterioration in the economic environment and our results and in order to address our high level or debt, on February 21, 2018, we finalized the implementation of our Financial Restructuring Plan, which meets our objectives of strengthening our balance sheet and providing financial flexibility to continue investing in the future. See “Item 4: Information on the Company — History and development of the Company — Financial restructuring process” and note 2 to our consolidated financial statements. However, continued difficult conditions in the markets where we operate or volatility in the financial markets could have a material adverse effect on our ability to service or refinance all or a portion of our indebtedness or 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, financial condition and results of operation.

We are exposed to interest rate risk.

Following the financial restructuring effective as of February 21, 2018, the total amount of our first lien notes and second lien notes are subject to variable interest rates. On a pro forma basis as of December 31, 2017, we had US$1,135 million of debt bearing variable interest, and an increase of 1% in the applicable three-month interest rate would have had a negative impact on our net results before taxes of US$11.4 million.

Following the financial restructuring, we have a new debt structure. Our ability to manage our new debt structure, finance our working capital and make capital expenditures depends on certain factors beyond our control.

Following the implementation of the financial restructuring, our indebtedness is composed of the first lien notes and the second lien notes. The first lien notes have been issued by CGG Holding (U.S.) Inc. and the second lien notes have been issued by CGG S.A., in each case, with security interests granted over certain collateral and guarantees provided by certain other Group entities.

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

We may not be able to generate sufficient cash flows to service our debt, finance our working capital and make research and development and other capital expenditures. If we are unable to satisfy our debt obligations, we may have to seek alternative financing plans, such as refinancing or restructuring our indebtedness, selling assets, reducing or delaying capital investments or seeking to raise additional capital. Our ability and the conditions under which we may borrow funds to refinance existing debt or finance our operations depend on many factors, including conditions in credit markets, perceptions of our business and the ratings attributed to us by rating agencies.

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. 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, which could have a negative impact on our ability to grow our business and restore profitability.

MARKET AND OTHER RISKS

We are exposed to exchange rates fluctuations.

Our financial debt is partly denominated in euro and converted in US dollars at the closing exchange rate. As of December 31, 2017, our US$2,640 million of net debt included euro-denominated debt of €917 million based on the closing exchange rate of US$1.1993.

From one year end closing to another, a variation of US$0.10 in the closing exchange rate between the US dollar and the euro would impact our net debt by approximately US$92 million.

Following the financial restructuring, the euro-denominated portion of our gross debt would have amounted to approximately €128 million on a pro forma basis as of December 31, 2017. After including cash denominated in euros and net proceeds from our capital increase, we would have had net surplus euros of around €61 million on a pro forma basis as of December 31, 2017. Therefore, from one year end closing to another, a variation of US$0.10 in the closing exchange rate between the US dollar and the euro would impact our net debt, on a pro forma basis as of December 31, 2017, by approximately US$6 million.

Our policy is to manage our balance sheet exposures by maintaining our monetary assets and liabilities in the same currency to the extent practicable and adjust imbalances through spot currency sales or equity purchases or transactions. This policy could not be enforced during our Safeguard and Chapter 11 processes, but will be progressively reinstated.

The following table shows our exchange rate exposure as of December 31, 2017:

As of December 31, 2017

(Converted in millions of US$)	Assets (a)	Liabilities (b)	Currency commitments (c)	Net position before hedging (d) = (a) – (b) ± (c)	Off-balance sheet positions (e)	Net position after hedging (f) = (d) + (e)
US$[1]	1,469.6	1,869.9	—	(400.3)	0.0	(400.3)

[1] *US$-denominated assets and liabilities in the entities whose functional currency is the euro.*

As of December 31, 2017

(In millions of US$)	Assets (a)	Liabilities (b)	Currency commitments (c)	Net position before hedging (d) = (a) – (b) ± (c)	Off-balance sheet positions (e)	Net position after hedging (f) = (d) + (e)
EUR[1]	71.9	170.5	—	(98.6)		(98.6)

[1] *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 recurring expenses in euros are equal to approximately €350 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 profit before tax and our shareholders' equity by approximately US$35 million.

Sensitivity Analysis Table

Impact of US$ variation in expenses in euros

As of December 31, 2017	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 millions of US$	35	(35)	35	(35)
Total	**35**	**(35)**	**35**	**(35)**

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.

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, 2017, we owned 24,996 of our own shares with a balance sheet value at CGG S.A.'s level of €0.2 million (US$0.3 million). Those shares are not valued in our consolidated financial statements.

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

The fair value of our own shares as of December 31, 2017 is as follows:

As of December 31, 2017	At fair value	Available for sales	Held to maturity	Derivatives	Total
Shares	US$ 0.3 million	—	—	—	US$ 0.3 million
Total	**US$ 0.3 million**	**—**	**—**	**—**	**US$ 0.3 million**

We are subject to risks that are not fully insured.

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 commercially 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 or accidents, we may also be subject to losses resulting from, among other things, war, terrorist activities, piracy, political instability, business interruption, strikes and severe weather events.
- Our extensive range of seismic products and services expose us to the risk of litigation and legal proceedings, including those related to product liability, personal injury and contract liability.
- We produce and sell highly complex products. Our extensive product development, manufacturing controls and testing may not be adequate and sufficient to detect all defects, errors, failures, and quality issues that could affect our customers, which could result in claims against us, order cancellations or delays in market acceptance.

We have put in place insurance coverage against certain 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, our insurance coverage may not be sufficient to fully indemnify us against liabilities arising from pending and future claims or our insurance coverage may not be adequate in all circumstances or against all hazards. We may not be able to maintain adequate insurance coverage in the future at commercially reasonable rates or on acceptable terms.

We are subject to disruptions in our supply chain and third party suppliers.

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.

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.

RISK RELATING TO THE IMPLEMENTATION OF IFRS 15

The application of IFRS 15 will change our recognition of certain revenues from contracts with customers.

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 terms. Until the application of IFRS 15, we recognized pre-commitments as revenue when production started based on the physical progress of the project, as services were rendered.

In light of the introduction of IFRS 15, a new revenue recognition standard by IASB, revenue recognition for multi-clients original participants contracts (formerly ‘pre-commitments’) has been subject to an in-depth analysis of the industry practice and of the multi-client business model with our auditors. In line with what was disclosed recently by other seismic players, a preliminary analysis, based purely on the text of IFRS 15 and applied to the written terms of present contracts, is showing that there is a high risk that all the revenues related to multi-clients original participants contracts would, under the new norm, have to be recognized only at delivery of the final processed data, which may be more than one year after acquisition of the data. Subject to certain contractual documentation improvements and clarifications and consistent with former accounting applied throughout the seismic industry that differentiates original participants from after sales revenue recognition, we concluded that original participants contracts contain two different performance obligations. The first is an obligation to provide services for which revenue should be recognized over time based on the data acquisition and processing progress of the survey. The second obligation is to deliver the license for the final processed data, for which revenue should be recognized at final delivery. The value of the license delivery would represent 10% of the total contract on average, potentially rising to 20% or falling to 5% depending on the complexity level of the survey. This conclusion has been shared and discussed with other seismic companies. However, this conclusion has not yet been endorsed by our auditors and the regulators of the financial markets where our securities are publicly listed.

Our revenues related to multi-client original participants amounted to US$269 million in 2017. The implementation of IFRS 15 could have a material effect on our results of operations and financial condition by delaying recognition of revenue from multi-client original participants in 2018 and future years and by applying the impact of delayed recognition during prior periods with limited retrospective effect. Furthermore, the description of the application of IFRS 15 above is subject to change as a result of exchanges with auditors, regulators or other relevant stakeholders. See note 1 to our consolidated financial statements for more information.

RISKS RELATED TO TAXATION

We are subject to complex tax rules in various jurisdictions, and our interpretation and application of these rules may differ from those of relevant tax authorities, which could result in additional tax liabilities.

We operate in a number of countries, and will accordingly be subject to the tax laws of several jurisdictions. The tax rules to which the Group is subject are complex, and we must make judgements (including based on external advice) as to the interpretation and application of these rules. Our total tax expense could be affected by changes in tax rates in various jurisdictions, changes in the valuation of deferred tax assets and liabilities or changes in tax laws or their interpretation. Additionally, our tax affairs will in the ordinary course be reviewed by tax authorities. Those tax authorities may disagree with our interpretation and/or application of relevant tax rules. There can be no assurance as to the outcome of these examinations. If a taxing authority disagrees with the positions we have taken, we could face additional tax liability, including interest and penalties, which could adversely affect our financial results.

U.S. federal income tax reform could adversely affect us.

On December 22, 2017, the United States enacted new tax legislation, the “Tax Cuts and Jots Act of 2017” (“U.S. Tax Reform”) which provides for substantial changes to the U.S. taxation of businesses and individuals. U.S. Tax Reform, among other things, significantly reduces the U.S. federal tax rate applicable to corporations, imposes significant additional limitations on the deductibility of interest, imposes a new base erosion anti-abuse tax (intended to prevent international groups from ‘earnings stripping’ through certain payments to non-U.S. affiliates), temporarily allows for the expensing of certain capital expenditures, and limits the deduction for net operating losses and net operating loss carryforwards (“U.S. NOLs”) to 80% of current year taxable income and eliminates net operating loss carrybacks, in each case, for losses arising in taxable years beginning after December 31, 2017 (though any such U.S. NOLs may be carried forward indefinitely).

We do not expect, for the time being, U.S. Tax Reform to have a material adverse impact on our projected cash taxes payable or on our net operating losses. However, since the legislation is new and unclear in many respects, we expect additional rules and regulations to be issued in the medium term. This could entail risks that cannot be fully assessed at this point in time. We continue to examine the impact U.S. Tax Reform may have on our business. For additional information on the impact of U.S. Tax Reform on the Group for 2017, see note 24 to our consolidated financial statements. The impact of U.S. Tax Reform on holders of our shares is uncertain and could be adverse. We urge investors to consult with their legal and tax advisors with respect to such legislation and the potential tax consequences of investing in our shares.

Our ability to use U.S. NOLs to offset future income may be limited.

We have generated significant U.S. NOLs. We generally are able to carry U.S. NOLs forward to reduce our tax liability in future years. Federal U.S. NOLs generated on or before December 31, 2017 can generally be carried back two years and carried forward for up to twenty years and can be applied to offset 100% of taxable income in such years. Under U.S. Tax Reform, however, federal U.S. NOLs incurred in 2018 and in future years may be carried forward indefinitely, but may not be carried back and the deductibility of such federal U.S. NOLs is limited to 80% of taxable income in such years. It is uncertain whether state and local laws governing the treatment of NOLs will follow the federal treatment under U.S. Tax Reform.

In addition, our ability to use existing U.S. NOLs generated is subject to the rules of Section 382 of the U.S. Internal Revenue Code of 1986, as amended (the “IRC”). This section generally restricts the use of U.S. NOLs for corporations that experience an “ownership change” as defined under Section 382 of the IRC. In general, an “ownership change” occurs if a corporation’s “5-percent shareholders,” as defined under Section 382 of the IRC, collectively increased their ownership in us by more than 50 percentage points over a rolling three-year period. CGG Holding (US) Inc. and its subsidiaries (the “Holding U.S. Group”) likely underwent a change of ownership on the effective date of CGG’s financial restructuring. A corporation that experiences an ownership change generally will be subject to an annual limitation on the use of its pre-ownership change U.S. NOLs equal to the equity value of the corporation immediately before the ownership change, multiplied by the long-term tax-exempt rate for the month in which the ownership change occurs, and increased by a certain portion of any “built-in-gains.”

The application of IRC Section 382 will be materially different from that described above if Holding U.S. Group is subject to special rules provided under IRC Section 382(l)(5) that apply to certain corporations who undergo an ownership change while under the jurisdiction of a bankruptcy court. Holding U.S. Group generally would qualify for these special rules if the historic holders of CGG common stock and certain holders of Holding U.S. Group’s debt, taken together, own equity interests representing at least 50% of the voting power and equity value of Holding U.S. Group following CGG’s financial restructuring. In that case, the Holding U.S. Group’s ability to use its pre-effective date U.S. NOLs would not be limited as described in the preceding paragraph. However, several other limitations would apply to the Holding U.S. Group under IRC Section 382(l)(5), including (a) the Holding U.S. Group’s U.S. NOLs would be calculated without taking into account deductions for interest paid or accrued in the portion of the current tax year ending on the effective date and all other tax years ending during the three-year period prior to the current tax year with respect to the debt securities that are exchanged pursuant to the financial restructuring, and (b) if the Holding U.S. Group undergoes another ownership change within two years after the effective date, the Holding U.S. Group’s Section 382 limitation following that ownership change will be zero. It is uncertain whether the provisions of Section 382(l)(5) are available and, if available, how they would apply to the Holding U.S. Group. If the Holding U.S. Group qualifies for the special rule under Section 382(l)(5), the use of the Holding U.S. Group’s U.S. NOLs will be subject to Section 382(l)(5) of the IRC unless the Holding U.S. Group affirmatively elects for the provisions not to apply. The Holding U.S. Group has not yet determined whether, if it qualifies for the special rules under Section 382(l)(5), it would be advantageous for Section 382(l)(5) to apply to the ownership change resulting from consummation of the financial restructuring, or whether the Holding U.S. Group will elect not to have the provisions of Section 382(l)(5) apply to the ownership change arising from the consummation of the financial restructuring.

If the Holding U.S. Group does not qualify for, or elects not to apply, the special rule under Section 382(l)(5) of the IRC described above, the provisions of IRC Section 382(l)(6) applicable to corporations under the jurisdiction of a bankruptcy court may apply in calculating the annual Section 382 limitation. Under this rule, the limitation will be calculated by reference to the lesser of the value of the Holding U.S. Group’s equity (with certain adjustments) immediately after the ownership change or the value of the Holding U.S. Group’s assets (determined without regard to liabilities) immediately before the ownership change. Although such calculation may increase the annual Section 382 limitation, the Holding U.S. Group’s use of any U.S. NOLs or other tax attributes, including tax credits, remaining after implementation of the financial restructuring may still be substantially limited after an ownership change.