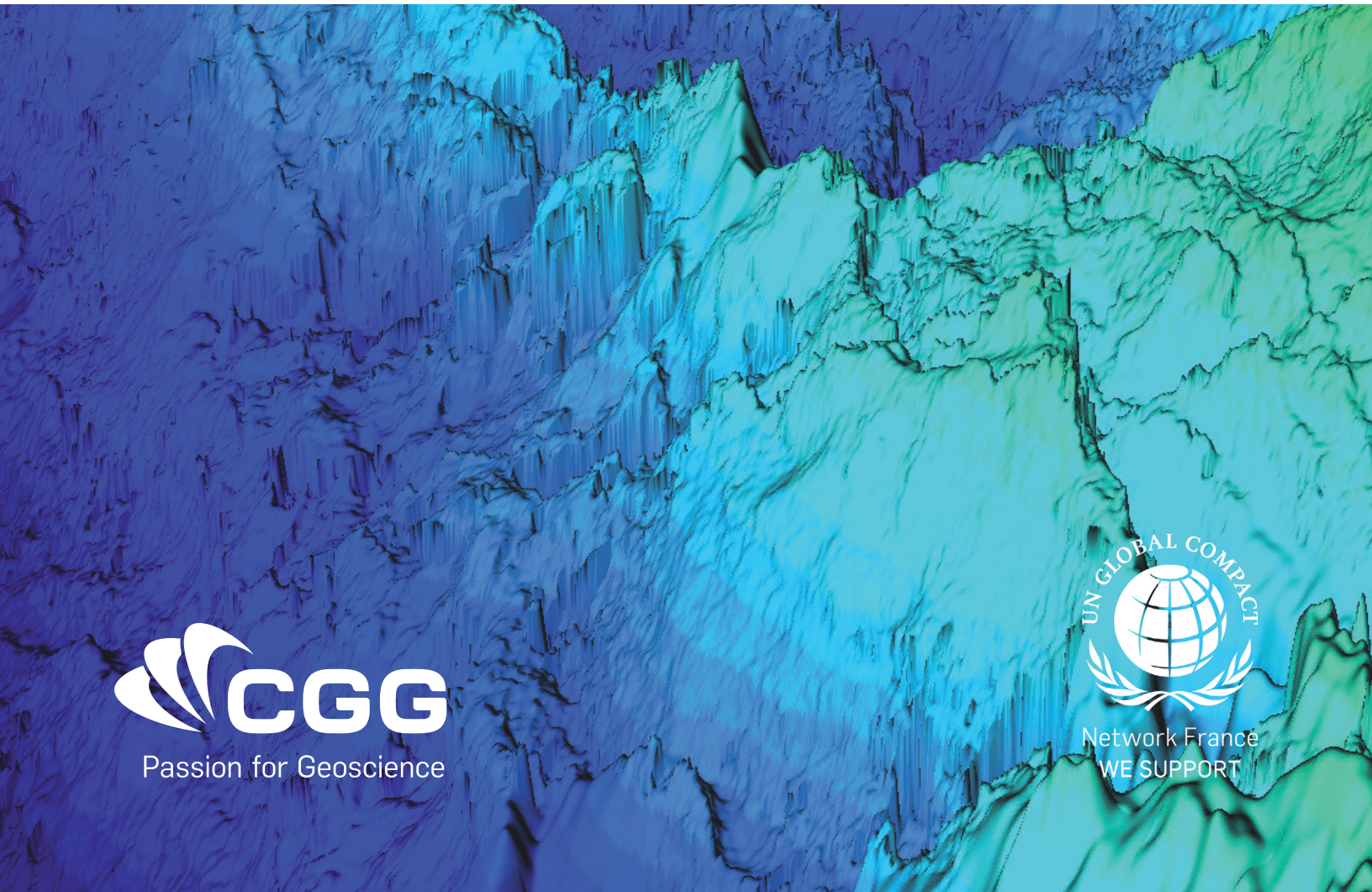
9th Communication on Progress



CGG

Passion for Geoscience

UN GLOBAL COMPACT

Network France

WE SUPPORT

COMMUNICATION ON PROGRESS

This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

This document serves as our 9th Communication on Progress.
In it we report according to the “Advanced Level” of the United Nations Global Compact.
Previous reports available on **www.cgg.com** > Sustainability > UN Global Compact

CONTACTS
Group Communications and Investor Relations: invrel@cgg.com
Group Sustainable Development (HSE & Social Responsibility): sustainable.development@cgg.com

Cover photo: Final image from Northeast Horda with interpreted basement surface - CGG delivers unique geoscience insight. This image has been interpreted from a BroadSeis™ – BroadSource™ dataset from a CGG survey in the North Sea combining long offsets, a dense streamer configuration and our state-of-the-art subsurface imaging technology to provide the clearest and highest-resolution images available in this complex region.

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1/ CEO recommitment to the United Nations Global Compact

2/ Contribution to the United Nations Sustainable Development Goals

3/ Concordance table for topics: 2016 Additional Information report / UNGC's 10 principles

4/ 2016 Annual Report brochure

5/ English translation of French *Document de Référence* (2016 Additional Information report)

CGG

Chief Executive Officer

His Excellency Mr. António Guterres
Secretary-General
United Nations
Global Compact Office
First Avenue & 46th Street
New York, NY 10017
United States of America

Paris, June 20, 2017

Our ref: JGM/DRA/20062017/197

Dear Mr. Secretary General,

As the world leading geoscience service provider, we contribute day after day to ensure access to affordable, reliable, sustainable and modern energy. Our technology and service offer allows clients to de-risk exploration and production of natural resources while lowering their associated environmental impact.

2016 was another extremely challenging year for our industry. CGG continued to weather the enduring storm, achieving an operational transformation that unfortunately led to a significant attrition of our workforce.

Paramount in this transformation was to signal that we'd stay true to our core values and commitments, and to act accordingly. In a tough cost-cutting environment, CGG succeeded to achieve a major internal IT system development strengthening our comprehensive management of health, safety, environmental and social responsibility risks across activities. CGG also made significant progress in mitigating potential risks to marine mammals linked to sound emissions with a broader implementation of our Passive Acoustic Monitoring system QuietSea™ on our marine seismic vessel fleet. We look forward to a wider adoption of such cutting-edge technologies by other ocean industries so as to multiply the positive effects on marine life.

This communication on progress shows that our employees and partners have kept working with integrity, respecting and promoting fundamental rights and principles at work, maintaining good health & safety practices and operating in a responsible manner towards the environment and local communities.

A respected compass in the private sector, the United Nations Global Compact principles will stay a foundation of future progress. I am proud to re-affirm my commitment to implement and promote them in our value chain.

Most respectfully yours,

Jean-Georges Malcor

CGG

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www.cgg.com

CONTRIBUTION TO THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

As a member of the United Nations Global Compact since 2007, CGG embraces the 17 Sustainable Development Goals (SDGs) as part of the 2030 UN Agenda for Sustainable Development.

CGG's major contribution to sustainable development is based on providing geoscience products and services, which enable better knowledge of, better access to and more efficient production of energy resources. This business model is applied with respect to employees, local communities and the environment.

CORE BUSINESS STAKE

CGG is a leader in cutting-edge geoscience. We capitalize on our valuable multi-client studies, diverse consulting services and powerful software workflows to offer our clients integrated and customized solutions for every geologic setting. By combining our extensive geological and seismic data with our unique expertise we deliver unrivalled geoscience insight to support our clients' decisions, allowing them to reduce their own environmental footprint.

SIGNIFICANT OTHER STAKES

CGG pursues a strategy for developing its people. It is essential, both for the Group and for every employee, to continue to develop the skills and expertise necessary to match the challenges CGG is facing. Training is a priority for the Group. "Learning for development" is the guiding principle of CGG University, CGG's own corporate university, which was founded in 2005. It is focused on providing the absolute best in technical and leadership education - both to our employees and clients within the oil and gas industry. 11,776 days of training were provided in 2016 within the Group, among them 8,589 days of training were provided at CGG University, of which 1,633 were for external customers and 6,956 for CGG employees.

Additionally, CGG is engaged in a University partnership program that encourages innovative approaches to education in the geosciences. With over US$311 million (estimated market value), in license donations or renewals recorded in 2016, this allows us to train students on advanced industrial software and develop new reservoir characterization techniques on real data. This program is international in scope: in 2016, CGG partnered with 129 universities throughout the world, including 37 located in countries considered to be developing (non-OECD countries). In most of these countries, software donations are very often accompanied by logistical help and donations of computer equipment.

CGG implements environmental plans across all activities. These plans are aimed at eliminating, or otherwise reducing the impact of its activities on the soil, water, fauna, flora and atmosphere.

There is an area where assessing the actual impact of our activities remains difficult because of incomplete scientific knowledge; this involves the effect of sound emissions from marine seismic acoustic sources on marine life. Therefore CGG supports research in this area while applying risk prevention and mitigation measures on board its vessels by teams of marine mammal visual and acoustic observers. CGG has also developed a fully automated Passive Acoustic Monitoring system integrated into seismic cables allowing for reliable real-time localization of marine mammals. These ensure compliance with the applicable regulations established by the countries in which we operate. In the absence of national regulations, CGG applies precautionary measures recommended by the International Association of Geophysical Contractors (IAGC) for the reduction of risks to cetaceans.

Most of CGG's permanent sites are located in urban areas and manage effluents and emissions so as to prevent environmental impacts. Land seismic acquisition projects that are required to access crops, cultivated land or pasture are tightly managed by a permitting team in order to prevent or reduce potential damage. In forest environments, every effort is made to bring tree-cutting to as low as reasonably possible levels. Community Relations Management plans are implemented and compensation systems are agreed upon whenever necessary to enable operators to ensure the proper management of seismic acquisition surveys when they significantly impact a community's livelihood.

CONCORDANCE TABLE FOR TOPICS
2016 ADDITIONAL INFORMATION – FISCAL YEAR ENDED DECEMBER 31, 2016
UNITED NATIONS GLOBAL COMPACT'S 10 PRINCIPLES

This index provides the concordance between:
- the 10 principles of the United Nations Global Compact: www.unglobalcompact.org
- the attached "Annual Report 2016" brochure
- the attached "2016 Additional Information" CGG report. This document is a translation from French into English of information from the French *Document de Référence* that is not included in the 2016 Annual report on Form 20-F. It is available on the CGG website www.cgg.com > Investors > Financial Information > Quarterly & Annual reports > 2016 > Additional Information or directly via this link: http://www.cgg.com/data/1/rec_docs/3551_AI2016.pdf.

INFORMATION	Ref. document page # [1]
- Adherence to the United Nations Global Compact since 2007, reporting as a "GC Advanced" member since 2013	***RA23***, ***RA24***, **12, 15, 18**
- New Sustainable Development Materiality analysis (including stakeholders consultation process) inspiring the Care+Protect program: objectives and actions to be undertaken between 2016 and 2018	***RA23***, **12, 14**
- External recognition as shown by Socially Responsible Investment indexes (SRI)	***RA24***, **12, 31**
- Commitment to comply with laws and regulations as well as the principles of our Business Code of Conduct with regard to our clients, shareholders, employees and partners.	***RA23***, **13, 20, 48**
- Governance of Sustainable Development issues	**13, 52**
- Role and work of the Ethics Committee to apply the Business Code of Conduct (communication, training, regular meetings including referrals on grievances stemming from employees, reporting to CEO and the Audit Committee of the Board of Directors); *Ethics Alert* (ethics alert phone line)	***RA23***, **13, 27, 46, 48, 52**
- Training program related to the promotion of ethics and the understanding of the Business Code of Conduct	**13, 25, 48**
- HSE, Social Responsibility and Human Resources professionals in Business Lines and Group functions to support CGG Operating Management System (HSE-OMS); in-house developed information system PRISM	***RA23***, **13, 14, 15**
- HSE & Social Responsibility training programs provided to staff on all company sites, in CGG University and in the field	**18, 25**

[1] Pages referring to the Annual Report brochure mentioned "*RA*" before respective page number and are italicized. Other pages mentioned refer to 2016 Additional Information report pages.

UNITED NATIONS GLOBAL COMPACT	INFORMATION	Ref. document page #
Human Rights		
Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and	- Adherence to the Universal Declaration of Human Rights	12, 13, 15
	- Member of the French United Nations Global Compact network Human Rights Club	15
Principle 2: make sure that they are not complicit in human rights abuses.	- Preventing workplace accidents and occupational diseases identified as top 1 and 2 priorities in sustainable development materiality analysis and main actions/results achieved	*RA22*, 12, 13, 15, 16, 27
	- Supplier's code of conduct: minimum social standards expected by CGG from its suppliers, in particular with regards to compliance with human rights	15

Labor Rights		
Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;	- Adherence to the principles and rules of the International Labor Organization's (ILO) core conventions	12, 13, 15, 19
	- Internal HSE & Social Responsibility audits carried out in 2016 all verified the application of the fundamental rights at work	*RA23*, 14,18, 28
	- Supplier's code of conduct: minimum social standards expected by CGG from its suppliers, in particular with regards to compliance with international conventions on labor rights	15
	- CGG Human Resources policy about child labor	15
Principle 4: the elimination of all forms of forced and compulsory labor;	- Number of different nationalities amongst the permanent staff; percentage of national staff; percentage of national managers in main CGG sites	17, 26, 30
	- Employee representative bodies' committees and meetings; number of employees covered by a collective agreement	*RA9*, 19, 26
	- Employee gender distribution; agreement on gender equality employee, gender distribution per contract type, segment, assignment location; employee gender distribution of entries/leavers; average age and average seniority gender distribution	19, 21-23, 26
Principle 5: the effective abolition of child labor; and	- Application of the principle of a balanced representation of men and women on the Board of Directors (>45%); external recognition on the "feminization" of the SBF 120 companies' governing bodies	21, 39
	- Provision of non-discrimination in recruitment and equality of opportunity and treatment in the Human Resources Policy	19
	- Homogeneity of the remuneration system and performance-related bonuses implemented uniformly across the Group	19-20, 25

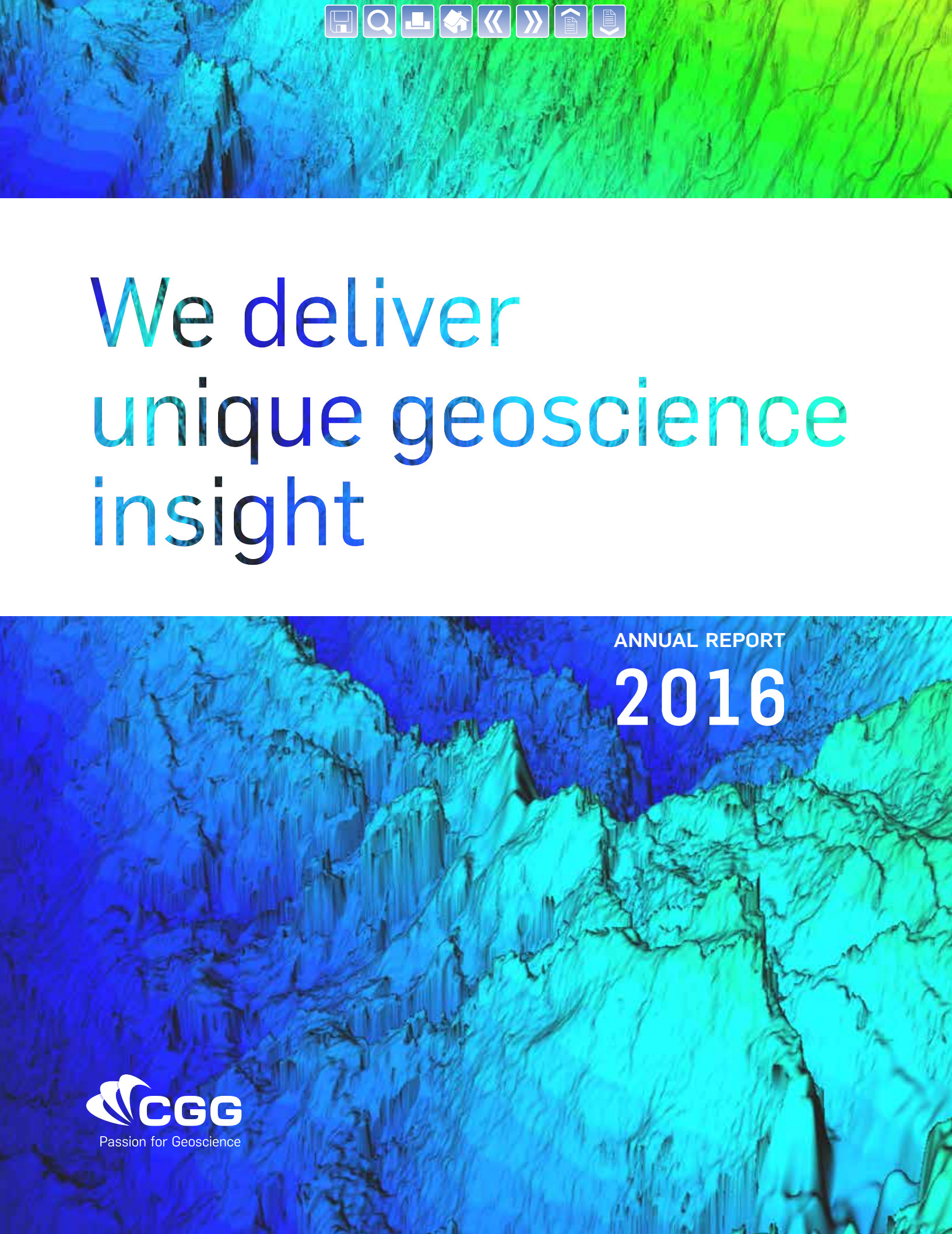
Principle 6: the elimination of discrimination in respect of employment and occupation.	- Age and seniority structures and breakdown per contract types	21
	- Employees subject to compliance with the working times stipulated in the social regimes of their countries of assignment	24
	- E-learning related to the fight against discrimination and harassment continued to be deployed (attendance rate 95%)	25
	- 10 cases reported to Ethics Committee, among them 3 cases qualified as “discrimination” as 2 as “harassment”	27
	- Suppliers mainly situated in countries committed to the principles of the International Labour Organization (ILO)	32

Environment		
Principle 7: Businesses should support a precautionary approach to environmental challenges;	- Business model implemented with a respect for the environment, including environmental footprint avoidance and minimization; participation with our services to the minimization of our clients’ footprint	*RA22*, 12, 13, 15, 17, 29, 31-32
	- Applying industry risk mitigation measures in the absence of regulations regarding sound and marine life	15, 30
	- No significant environmental incident or significant hydrocarbon spills recorded; no significant fines for non-compliance in environmental matters; no grievances about environmental impacts filed in 2016	17, 29, 30
	- Suppliers mainly situated in countries which have enacted environmental legislation	32
Principle 8: undertake initiatives to promote greater environmental responsibility; and	- Member of a work group focusing on environmental innovation within the Avenia Geosciences competitiveness cluster	15
	- Fostering interdisciplinary research with independent researchers to better understand the potential impact of sound on fish and develop protocols to qualify the environmental risk of new marine seismic sources	15, 17
	- Supporting the Joint Industry Program “Sound & Marine Life” recognized by environmental authorities as a significant contribution to sound risk management	17
	- Marine seismic fleet fuel efficiency index	29
Principle 9: encourage the development and diffusion of environmentally friendly technologies.	- Reduction of the environmental footprint in the value chain	17
	- Deployment of QuietSea, an integrated system capable of locating marine animals more accurately than conventional systems	17
	- Innovative cooling technologies impacting positively our Power Usage Effectiveness (PUE)	29

Anti-Corruption		
Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	- Commitment to combat all forms of corruption; Fight against corruption identified as top 3 priority in sustainable development materiality analysis	12, 13, 15, 48
	- New communication campaign launched in December 2016, joining the United Nations international days devoted to anti-corruption	13
	- Publication in 2016 of guidelines on conflict of interest management	13

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.	- Commitment to manage suppliers and partners to ensure their respect for anti-corruption standards and policies	*RA23*, 13
	- 10 cases reported to Ethics Committee, among them 1 case qualified as “conflict of interest” and 3 as a “compliance” case	27
	- Responsible procurement: 85% of products and services sourced by CGG stem from countries with a low corruption index	31, 32
	- Strict selection and management of commercial consultants to ensure they comply with the Business Code of Conduct and applicable international conventions and national regulations against corruption	46, 48
	- Anti-Corruption program has since 2014 received a limited assurance report (the Anti-Corruption Certificate) in which no major discrepancies were noted between the CGG Anti-Corruption Program and the Mazars-ADIT Anti-Corruption Framework®	*RA23*, 48
	- Business integrity booklet to help the employees to understand the concept of corruption and the associated rules, risks and red flags	48
	- Roles of the compliance officer	52

Community relations		
	- Commitment to respect communities neighboring our activities worldwide	*RA22*, 12, 13, 15
	- Community relations management; no significant detrimental impacts on the communities have been noted or reported	15, 17
	- Training programs and partnerships with local universities, including donation programs	*RA23*, 15, 17-18, 30
	- Initiatives and actions in favor of corporate social responsibility in local communities	17, 31
	- Local employment and on-site HSE training	17, 28, 30
	- Procurement through local suppliers	18, 30



We deliver unique geoscience insight

ANNUAL REPORT

2016

CGG

Passion for Geoscience

Equipment

Data Acquisition

Subsurface Imaging

Reservoir Characterization

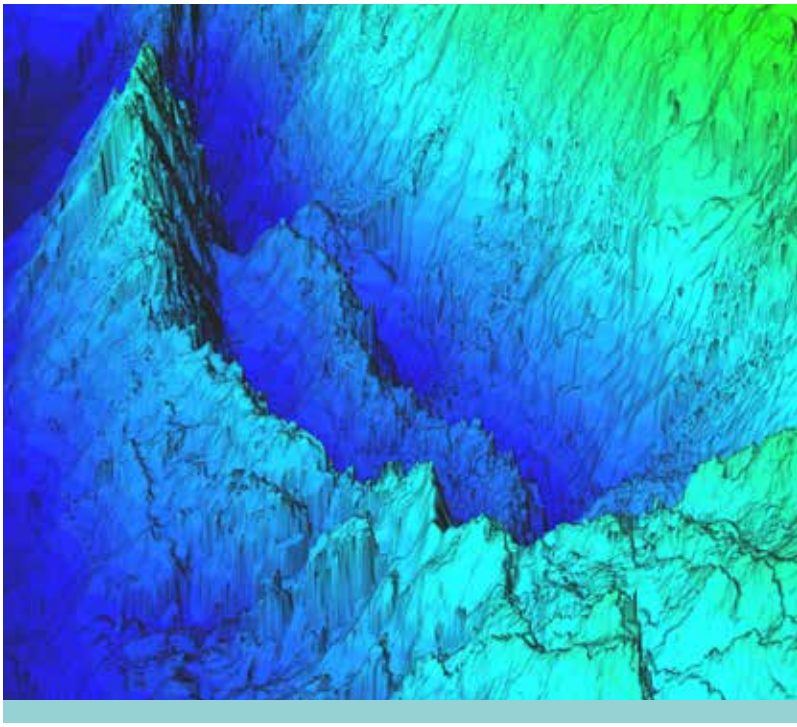
Analysis & Interpretation

Geoscience Software

Geological Studies

Multi-Client Data

Integrated Studies



03. PROFILE

04. KEY FIGURES

06. MESSAGES FROM THE CHAIRMAN AND THE CEO

08. GOVERNANCE AND MANAGEMENT

12. ACTIVITIES

14. 2016 HIGHLIGHTS

18. OUR CORE CAPABILITIES

22. SUSTAINABLE DEVELOPMENT

24. SHAREHOLDER INFORMATION

30
SUBSURFACE IMAGING CENTERS WORLDWIDE

AMONG THE WORLD'S
TOP 15
FOR COMPUTING CAPACITY (ALL SECTORS)

400
STAFF DEDICATED TO R&D

86
YEARS OF PIONEERING

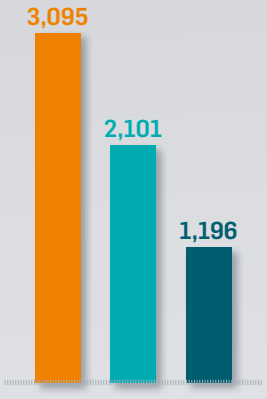
AROUND
5 800
EMPLOYEES

OVER
845 000 sq km
OF OFFSHORE MULTI-CLIENT DATA IN KEY SEDIMENTARY BASINS

We deliver unique geoscience insight

CGG is a leader in cutting-edge geoscience. We have achieved leadership through a strong focus on innovation and a sustained commitment to delivering the best products and services in our industry. We capitalize on our valuable multi-client studies, diverse consulting services and powerful software workflows to offer our clients integrated and customized solutions for every geologic setting.
By combining our extensive geological and seismic data with our unique expertise we deliver unrivalled geoscience insight to better support the E&P workflows of our clients.

CGG Group revenue in 2016 totalled 1,196 million dollars, down 43% compared to 2015, reflecting the current challenging geoscience market.
This revenue figure breaks down to 15% from our Equipment business segment, 19% from our Acquisition business segment and 66% from our Geology, Geophysics & Reservoir (GGR) business segment.
Since the launch of our transformation plan at the end of 2013, which was accelerated in 2014 and 2015, we have swiftly adapted to the deterioration in market conditions, by more than halving our capital expenditure, reducing the Group's headcount by 5,200 employees and cutting overheads by 61%.



CONSOLIDATED OPERATING REVENUE
(million dollars)

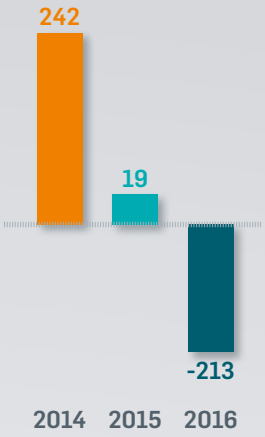
KEY FIGURES

- 1.27% IFPEN
- 9.35% BPIFRANCE PARTICIPATIONS
- 89.38% FLOATING

SHAREHOLDER STRUCTURE

- 30% NORTH AMERICA
- 14% CENTRAL AND SOUTH AMERICAS
- 40% EUROPE, AFRICA AND MIDDLE EAST
- 16% ASIA PACIFIC

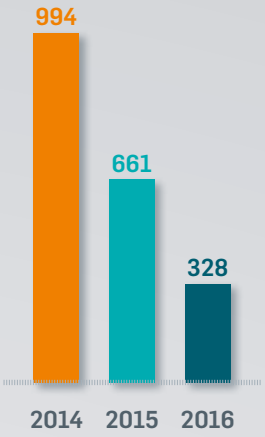
OPERATING REVENUE BY REGION



OPERATING INCOME*

(million dollars)

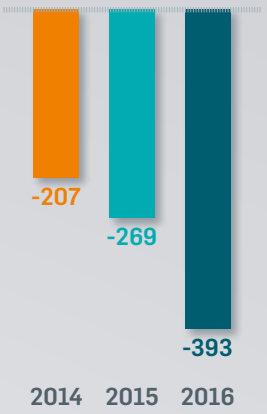
* Before non recurring charges



EBITDAS*

(million dollars)

* Before non recurring charges



NET INCOME*

(million dollars)

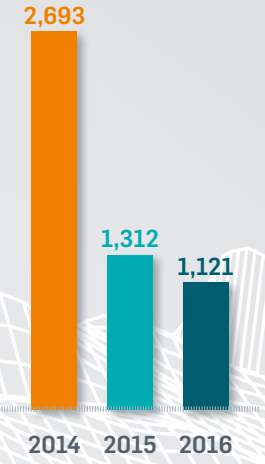
* Before non recurring charges

INDUSTRIAL CAPITAL EXPENDITURE

(million dollars)

NET DEBT

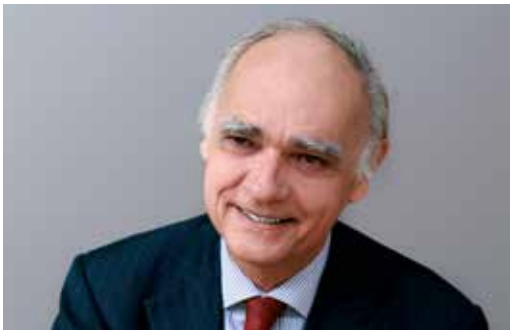
(million dollars)



EQUITY

(million dollars)

MESSAGE FROM THE CHAIRMAN



“Despite a period of major upheaval, CGG remains an industry leader in all its business segments”

For three years now, CGG has felt the full impact of the most violent market downturn our industry has ever had to face. Client spending, particularly on exploration, is still at a very low level and the fourth quarter showed no signs of improvement despite the rise in crude oil prices. During those three years, our revenue has been divided by three, although without a loss of market share, our operating cash flow has been divided by 2.5 and our headcount has been halved. CGG is still an industry leader in all its business segments, its high-end technology is recognized by all its clients and its operational excellence is appreciated by all. During this period of major upheaval for our group, our gross financial debt has unfortunately remained stable at a high level of 2.9 billion dollars.

With the support of our Board of Directors, CGG has therefore begun a process of financial restructuring. Our aim is to drastically reduce the CGG group’s level of indebtedness and cost of debt to bring them into line with the level of cash we generate.

To this end, and with the help of an ‘ad hoc representative’ appointed by the Chairman of the Tribunal de Commerce de Paris, the group is holding discussions to best defend the interests of all stakeholders.

Remi DORVAL

INTERVIEW WITH THE CEO

"In a still very difficult market context, we have implemented our Transformation Plan in full"

Can you please describe the market environment in 2016?

The market environment in 2016 was particularly complex and remained difficult throughout the year.

How did CGG's Transformation Plan progress?

In this very difficult context that we have been experiencing since September 2013, we have implemented our Transformation Plan in full. Over the course of our three-year Plan, we reduced the size of our fleet from 18 to 5 vessels, enabling us to cut Marine Acquisition structural costs by 75%. We cut overheads by 61% and halved our headcount to 5,800 permanent employees. This Transformation Plan was financed by the capital increase we held in February 2016.

How do you view CGG's 2016 results?

By making significant efforts to cut our costs, as well as strictly controlling our capital expenditure and cash management, we were able to meet our net debt target, which stood at slightly more than 2.3 billion dollars. As a result of these measures, coupled with a strong reduction in our working capital requirements, our free cash flow before non-recurring charges almost broke even, at (-7) million dollars, which is a very good performance in the current market context.

Our revenue for 2016 totaled 1.196 billion dollars. This 43% fall over one year is due to our difficult business environment having a strong impact on prices and volumes but also to our decision to downsize our fleet.

Overall, our Ebitda stands at 328 million dollars, and we show an operating loss of 213 million dollars. Our net earnings show a loss of 577 million dollars, after the deduction of 184 million dollars of non-recurring charges and depreciation of assets.

How do you see CGG's prospects for 2017?

Due to the persistently difficult market conditions, we expect our operating results for 2017 to be very similar to those of 2016. Nevertheless, we will generate less cash than in 2016 due to a less favorable variation in working capital requirements.

Given this environment, and the expected delayed market recovery, we do not expect our levels of activity and our results to enable us to generate the cash flow we need to service our current level of debt in the coming years. A financial restructuring is therefore necessary and should enable the group to be in a strong position for the market upturn.

During this process of financial restructuring, the company continues to conduct its operations with its recognized level of excellence. Our commitment to our clients, our efforts in research and innovation and our commercial success remain our top priorities.

Jean-Georges MALCOR

GOVERNANCE AND MANAGEMENT

Governance

The Board of Directors relies on the work of specialized Committees to oversee the company's good conduct. The Committees oversee Group activities in their area of competency, guarantee that high-level risks are identified and managed, and work closely with General Management.

The Board of Directors' Internal Rules and Regulations define the composition, duties and operating procedures of the Committees with the exception of the Audit Committee and the Appointment & Remuneration Committee that have each had their own operating charter since March 8th, 2005 and July 30th, 2008 respectively.

(1)

Remi Dorval
CHAIRMAN OF THE BOARD
INDEPENDENT MEMBER
• French •

Jean-Georges Malcor
CEO
• French/Australian •

(2)

Loren Carroll
INDEPENDENT MEMBER
• American •

(1)(4)

Michael Daly
INDEPENDENT MEMBER
• British •

(1)(2)

Anne Guerin
PERMANENT REPRESENTATIVE OF BPIFRANCE PARTICIPATIONS
• French •

(1)(3)

Didier Houssin
• French •

(2)(3)

Agnès Lemarchand
INDEPENDENT MEMBER
• French •

(2)(4)

Gilberte Lombard
INDEPENDENT MEMBER
• French •

(4)

Hilde Myrberg
• Norwegian •

(1)(3)

Robert F. Semmens
• American •

(3)(4)

Kathleen Sendall
INDEPENDENT MEMBER
• Canadian •

(1) Member of the Strategy/ Technology Committee

(2) Member of the Audit Committee

(3) Member of the Appointment & Remuneration Committee

(4) Member of the HSE/Sustainable Development Committee

• Corporate Committee

CGG is under the management responsibility of Jean-Georges Malcor, Chief Executive Officer, to whom the Board has given management authority.

Chaired by **Jean-Georges Malcor** (CEO), the Corporate Committee (C-Com) is formed by: **Stéphane-Paul Frydman** (Group Chief Financial Officer), **Pascal Rouiller** (Chief Operating Officer), **Sophie Zurquiyah** (Chief Operating Officer) and **David Dragone** (EVP, Human Resources). Its members meet monthly to review the global performance of the Group and the general conduct of business.

Stéphane-Paul Frydman | Sophie Zurquiyah | Jean-Georges Malcor | Pascal Rouiller | David Dragone

Executive Committee

The E-Com is formed by the Corporate Committee and the EVPs of the Business Lines and Group Functions. The E-Com meets monthly and acts as a support structure for the C-Com. Its principal function is to serve as the Group's platform for discussion and proposals between the Business Lines and the Group Functions. It also serves as the validating body for all projects and decisions with cross-division or cross-function impact.

Christophe Barnini
GEOMARKETS, SALES & MARKETING AND GROUP COMMUNICATIONS

Olivier Gouirand
GOE, INTERNAL AUDIT, RISK MANAGEMENT, HSE AND SD

Tugdual Le Bouar
LAND DATA ACQUISITION

Colin Murdoch
SUBSURFACE IMAGING

Don Pham
R&D AND TECHNOLOGY

Béatrice Place-Faget
GENERAL SECRETARY AND GROUP GENERAL COUNSEL

Eva Rudin
MARINE DATA ACQUISITION

Luc Schlumberger
MULTI-CLIENT & NEW VENTURES

Arnaud Surpas
EQUIPMENT

ACTIVITIES

DATA ACQUISITION

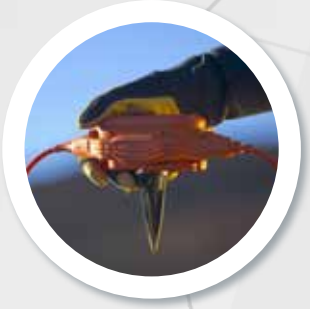
High-end geophysical data acquisition services.

Trusted by our clients to acquire the best data with our marine, land and airborne operations.

EQUIPMENT

Established leader in geophysical equipment.

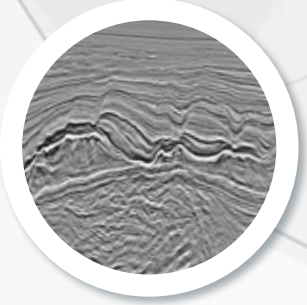
Founded over 50 years ago, Sercel designs, manufactures and supports a full range of onshore, offshore and downhole products.



SUBSURFACE IMAGING

Exceptional people, remarkable technology and outstanding service.

Industry-recognized technical leaders in advanced imaging, we exceed our clients' expectations to resolve their challenges.



Our offer

CONSULTING

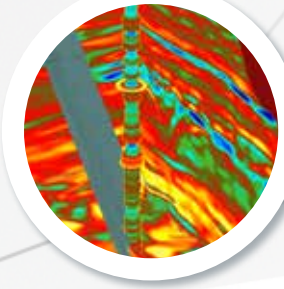
Recognized leader in geoscience consulting services and studies.

We support our clients for all their geochemistry, geospatial, sedimentology, stratigraphic, geomechanical, reservoir engineering, petroleum economics and data management needs.

MULTI-CLIENT DATA

The right data, in the right place, at the right time.

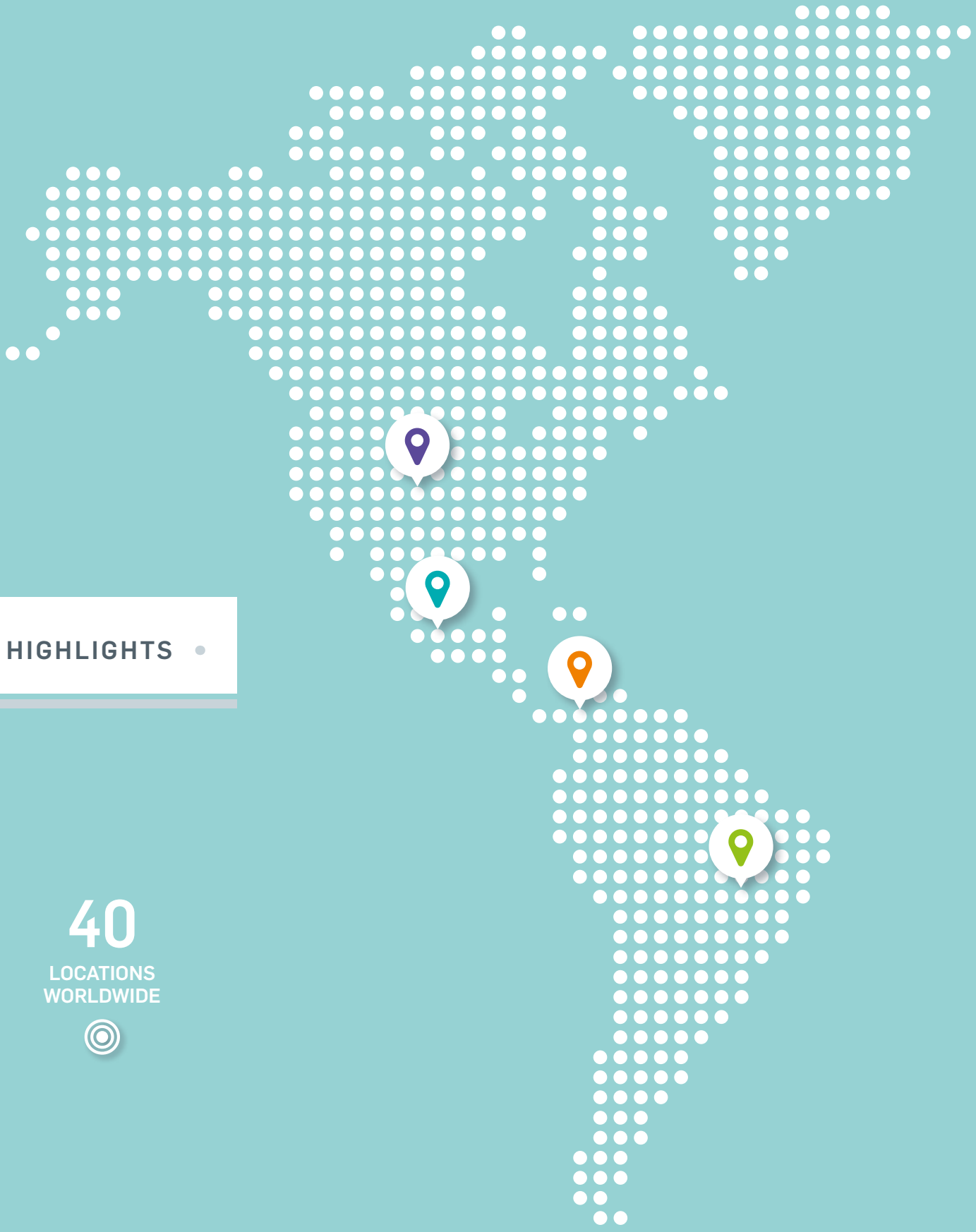
An extensive multi-client library offering the industry's most technically advanced seismic images and rich geological and geospatial data in the world's key locations.



SOFTWARE

A unique portfolio for reducing risks and optimizing production.

Our powerful reservoir characterization workflows span all disciplines and stages in the E&P cycle.



2016 HIGHLIGHTS

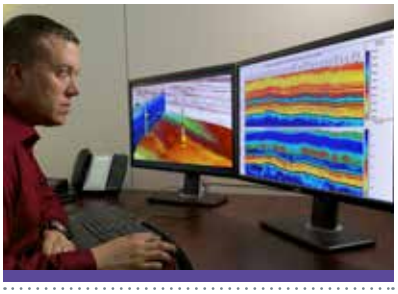
40
LOCATIONS
WORLDWIDE

COLOMBIA

CGG is awarded **an extension to a major 3D seismic survey it successfully completed offshore Colombia** in late 2015. The original survey, covering over 16,000 km^2 over portions of the Col-1 and Col-2 blocks, was the largest ever recorded offshore Colombia.

USA

Innovative new releases across CGG GeoSoftware's reservoir characterization software portfolio integrate multi-disciplinary workflows to overcome the most complex subsurface challenges.

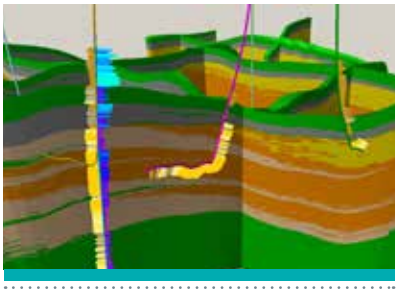


BRAZIL

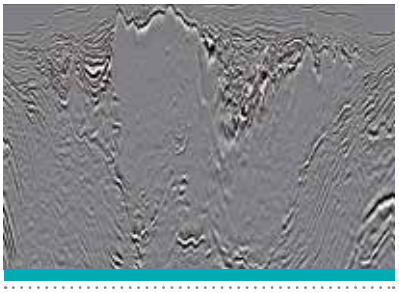
CGG starts acquiring the **Saturno broadband multi-client survey** in the highly prospective deepwater Santos Basin. Saturno is the third phase in CGG's Santos Basin Trilogy program, designed to deliver ultramodern seismic datasets to support Brazil's next pre-salt licensing round.

MEXICO

CGG is registered by Mexico's National Hydrocarbons Commission (CNH) as an **independent third party qualified to audit and certify Mexico's oil and natural gas resources,** from conventional to unconventional, in both offshore and onshore settings.



CGG delivers **Fast Trax data from its Encontrado mega-merge reprocessing project.** As a result, the industry had access to ultramodern images of the Perdido fold belt, one of the most prospective areas of the Gulf of Mexico, ahead of Mexico's end-of-year licensing round.



CGG is selected by Pemex to conduct **Mexico's first orthogonal wide-azimuth integrated acquisition and imaging project** that is designed to enhance subsalt seismic imaging in the geologically complex deep waters of the Perdido area.

NORWAY

CGG launches **TopSeis™, an industry-first source-over-spread offshore broadband seismic solution.** Specially designed to improve imaging of shallow and intermediate-depth targets by overcoming the lack of near-offset data from towed-streamer seismic, TopSeis is expected to deliver a step-change in exploration and development of the Barents Sea/Norwegian Shelf.

RUSSIA

Sercel delivers two 508^{XT} land seismic acquisition systems, representing a total of 12,000 channels, to Bashneftegeofizika, a large oil service company in the Russian Federation.

SAUDI ARABIA

Sercel's 508^{XT} system passes the milestone of one million VPs (Vibrated Points) during deployment on a high-productivity seismic survey being acquired in Saudi Arabia by ARGAS, CGG's joint venture with TAQA.

MOROCCO

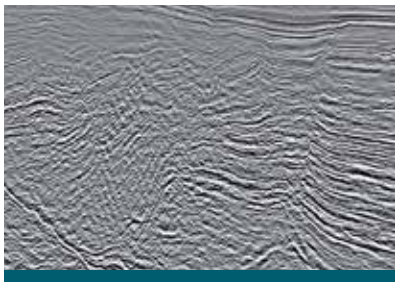
CGG delivers near real-time imaging results for a large BroadSeis™ 3D marine seismic survey acquired offshore Morocco. CGG delivered the very-fast-track RTM PSDM volume to the client only 4 days after the last shot.

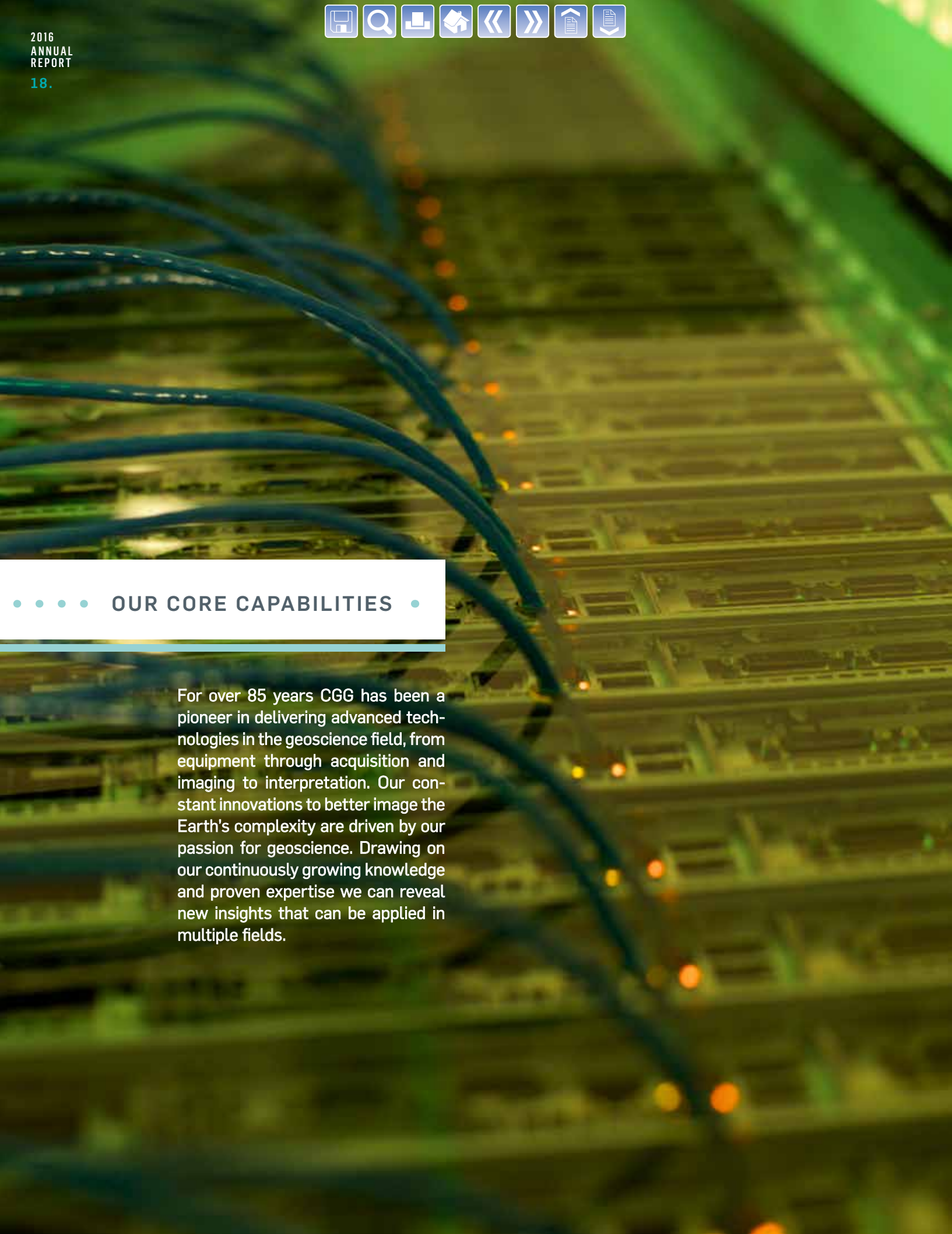
GABON

CGG delivers final processed depth volumes (Kirchhoff and RTM PreSDM) from its recent 3D BroadSeis multi-client survey in the highly prospective Gabon South Basin, one of the last underexplored areas of the West Africa Atlantic Margin.

AUSTRALIA

CGG completes the processing of Phase 1 of its Davros 3D BroadSeis and BroadSource™ multi-client survey in the Northern Carnarvon Basin on the North West Shelf of Western Australia. The new broadband data is delivering deeper and clearer images than previously seen in the area.





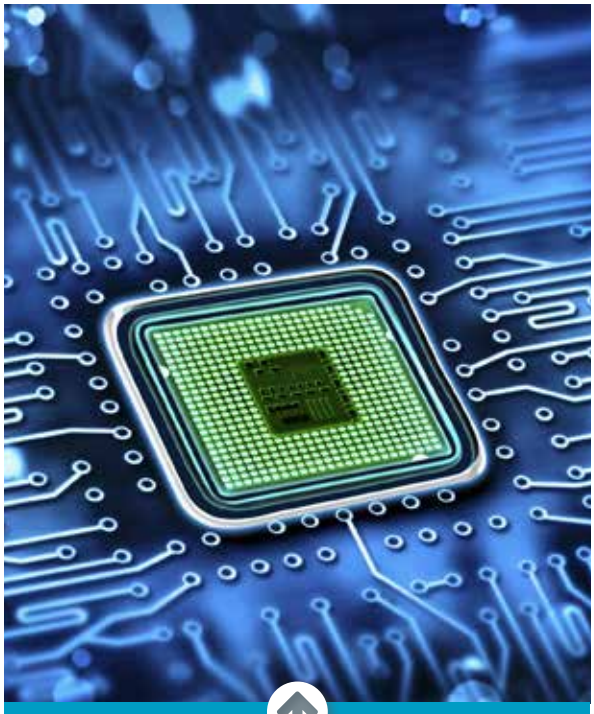
OUR CORE CAPABILITIES

For over 85 years CGG has been a pioneer in delivering advanced technologies in the geoscience field, from equipment through acquisition and imaging to interpretation. Our constant innovations to better image the Earth's complexity are driven by our passion for geoscience. Drawing on our continuously growing knowledge and proven expertise we can reveal new insights that can be applied in multiple fields.

EARTH DATA IMAGING & INTERPRETATION

CGG has industry-recognized experience in the processing and analysis of a wide range of remotely acquired data, including seismic. Aerial and satellite data from a variety of government and commercial systems are processed to inventory crop lands, map vegetation, and assess mineral and petroleum deposits, both nationally and internationally.

- 3D DEGHOSTING FOR BROADBAND
- FULL-WAVEFORM INVERSION FOR HIGH-RESOLUTION MODELS
- AN ADVANCED RTM IMAGING TOOLBOX



INDUSTRIAL MECHATRONICS

Through Sercel, CGG has developed a differentiating industrial capability in mechatronics. This expertise encompasses the design, engineering and manufacture of mechanical, electronic and big-data communication systems for use in challenging and harsh onshore and offshore environments. By drawing on this totally unique experience we are able to take an integrated and synergy-driven approach to the broad range of systems we design and manufacture as well as to optimizing the functionalities they offer.

- ELECTRONIC DESIGN
- MECHANICS
- COMMAND AND CONTROL SYSTEMS
- TELEMETRY
- SOFTWARE
- ACOUSTICS

HIGH-PERFORMANCE COMPUTING & COMPLEX ALGORITHM DESIGN

As an early pioneer in High-Performance Computing (HPC), CGG operates with a very high-density HPC infrastructure based on thousands of GPU servers, tens of thousands of cluster nodes interconnected by Ethernet in over 30 locations worldwide, and hundreds of petabytes of storage capacity. We design complex subsurface imaging algorithms to deliver geoscience information that our clients can use to make informed decisions in the oil and gas exploration and production sector.

- LARGE-SCALE MODULAR SOFTWARE ARCHITECTURE
- SCIENTIFIC BATCH CALCULATIONS AND BATCH SUBMISSION SYSTEMS
- HIGH-END GRAPHICAL INTERACTIVE APPLICATIONS
- ANALYTICS
- NUMERICAL METHODS
- MODELING

HIGH-END DATA ACQUISITION

Since its creation in 1931, CGG has specialized in collecting geophysical data to locate natural resources concealed underground, both onshore and offshore. We are constantly improving the methodologies, technologies and capabilities we deploy in different environments around the world to acquire the best data to meet the challenges of our clients and provide higher-resolution images of their geological targets.

- MARINE
- LAND
- AIRBORNE

SPECIALIZED SOFTWARE DEVELOPMENT

With a team of over 100 IT architecture and software development experts, CGG designs and delivers innovative and interactive software applications and platforms for large computing environments and various IT architectures.

- A GLOBAL TEAM OF SOFTWARE AND IT ENGINEERS
- CODE OPTIMIZATION SKILLS ON VARIOUS TYPES OF IN-HOUSE BESPOKE CPU- AND GPU-BASED IT ARCHITECTURES
- DEVELOPMENT OF INNOVATIVE ALGORITHMS ON INTERACTIVE APPLICATIONS

DATA MANAGEMENT SOFTWARE, SOLUTIONS AND SERVICES FOR LARGE ACTIVE STRUCTURED AND UNSTRUCTURED DATA SETS

CGG has developed comprehensive expertise in the collection, transcription and management of physical data as well as unstructured and semi-structured digital datasets, stored online. We can manage in excess of millions of data items through desktop- and web-based data management solutions.

- OVERARCHING DATA PORTAL
- PHYSICAL AND DIGITAL DATA
- DESKTOP AND WEB-BASED DATA MANAGEMENT SOLUTIONS
- DATA MIGRATION, CLEANING AND TRANSFORMATION

SUSTAINABLE DEVELOPMENT

At CGG, sustainable development means the ability to successfully deliver geoscience services and products to the market while protecting the environment and caring for our employees and the communities in which we have the privilege to operate.

« Operating safely and with integrity »

A deeply rooted commitment to Health, Safety, Security, Environment and Social Responsibility

CGG's structured approach to Health, Safety, Security, Environment and Social Responsibility is based on our HSE-Operating Management System (HSE-OMS), which complies with guidelines issued by the International Association of Oil & Gas Producers (IOGP). Our HSE-OMS is implemented globally, across all our activities; it promotes a proactive approach to HSE in all of our operations, a focus on high risks and the relentless pursuit of improvement through learning from incidents and near-misses. Our HSE-OMS is supported by behavioral programs which emphasize line management responsibility, engagement, intervention and team communication.

The CGG HSE-OMS has a wide scope, encompassing not only safety but also security, health and wellness, environment and social responsibility. Its implementation is followed through a global HSE reporting system and regularly verified through a robust internal audit program. Our global performance reporting is also verified annually by a certified third-party auditor.

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Network France
WE SUPPORT

129
UNIVERSITIES WORLDWIDE BENEFIT FROM GEOSOFTWARE DONATIONS

Care+Protect

Our Care+Protect program has as an overall objective the promotion of excellence in HSE & Sustainable Development. The program seeks to strengthen specific cornerstones of our HSE-OMS such as leadership and management visibility, risk management, subcontractor management and competence and training. In support of the Care+Protect program, each year CGG recognizes employees and subcontractors for HSE and Sustainable Development initiative and excellence through an award program.

124 000
INSPECTIONS CONDUCTED WORLDWIDE

Ethics and Compliance

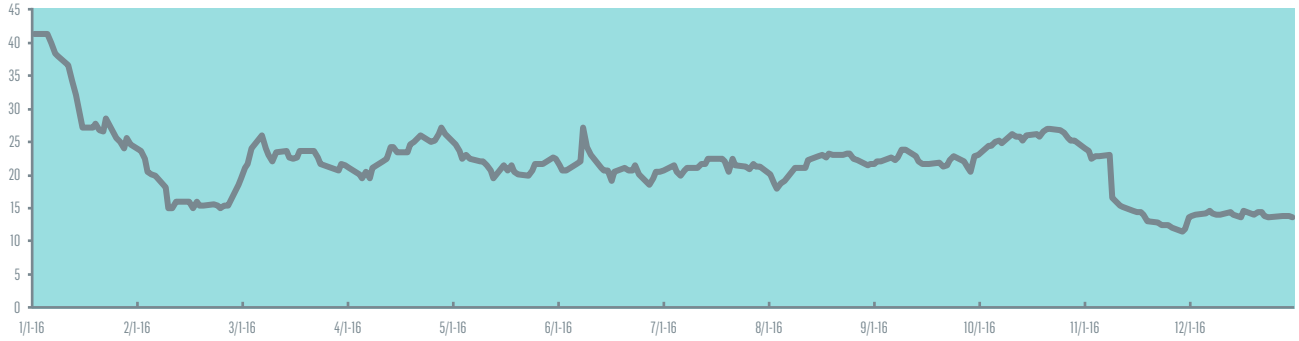
CGG defines its ethical standards, core values and commitments in its Group Values and its Business Code of Conduct. The CGG Ethics Committee supports and oversees the implementation of the Business Code of Conduct. CGG has also developed a robust anti-corruption program which includes due diligence for intermediaries and suppliers and worldwide anti-corruption training and communications. This anti-corruption program has been audited and certified against the Mazars-ADIT Anti-Corruption Framework®.

Discover our HSE and Social Responsibility case studies:
www.cgg.com/en/Sustainability/Case-Studies

SHAREHOLDER INFORMATION

Paris Stock Exchange (Euronext)	New York Stock Exchange (NYSE)
• Minimum 2016 share price*: **€11.10**	• Minimum 2016 share price*: **$11.91**
• Maximum 2016 share price*: **€42.56**	• Maximum 2016 share price*: **$46.43**
• Closing price, 12/31/2016: **€13.71**	• Closing price, 12/31/2016: **$14.14**

CGG 2016 share price*



Stock Exchange Listing

CGG stock is listed on Euronext Paris (code ISIN FR0013181864), and on the New York Stock Exchange in the form of American Depositary Shares (ADS), where one ADS represents one ordinary share. ADS are issued by the Bank of New York Mellon and are listed under the ticker symbol 'CGG'. As of 31 December 2016, CGG stock was trading at €13.71 and one ADS was worth US$14.14.

Share Capital

As of 31 December 2016, the Group's share capital totaled €17,706,519 comprising 22,133,149 shares with a face value of €0.80.

Dividends

There are no plans to propose the payment of a dividend for the 2016 fiscal year at the Annual Shareholders' Meeting.

Socially Responsible Investment

CGG is committed to Sustainable Development (SD) and Corporate Social Responsibility (CSR). In 2016, the Group renewed its presence in the following indexes: DJSI World, Ethibel Pioneer and Excellence Investment Registers. These global indexes are intended to estimate the best corporate social responsibility performance.

MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM

UN GLOBAL COMPACT Network France WE SUPPORT

CGG has also been a member of the United Nations Global Compact since 2007.

Investor Relations

A copy of the 2016 annual report filed with the Autorité des Marchés Financiers (AMF) and Form 20F as filed with the Securities and Exchange Commission (SEC) and other available company documents will be sent free of charge to any investor on written application to the CGG Investor Relations Department. Group financial information is also available on our website at www.cgg.com

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Tel. : +33 1 64 47 45 00 – e-mail : invrel@cgg.com

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France

MAZARS
61, rue Henri-Regnault
92400 Courbevoie
France

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This document has been drawn up for the general information of shareholders and its content shall in no way be seen as an offer to purchase or an incentive to acquire Company shares. Nor does it constitute a Company guarantee of the value of its shares.

* CGG share price restated to take into account securities transactions that occurred during the year: February 5, 2016 rights issue and July 20, 2016 reverse stock split.

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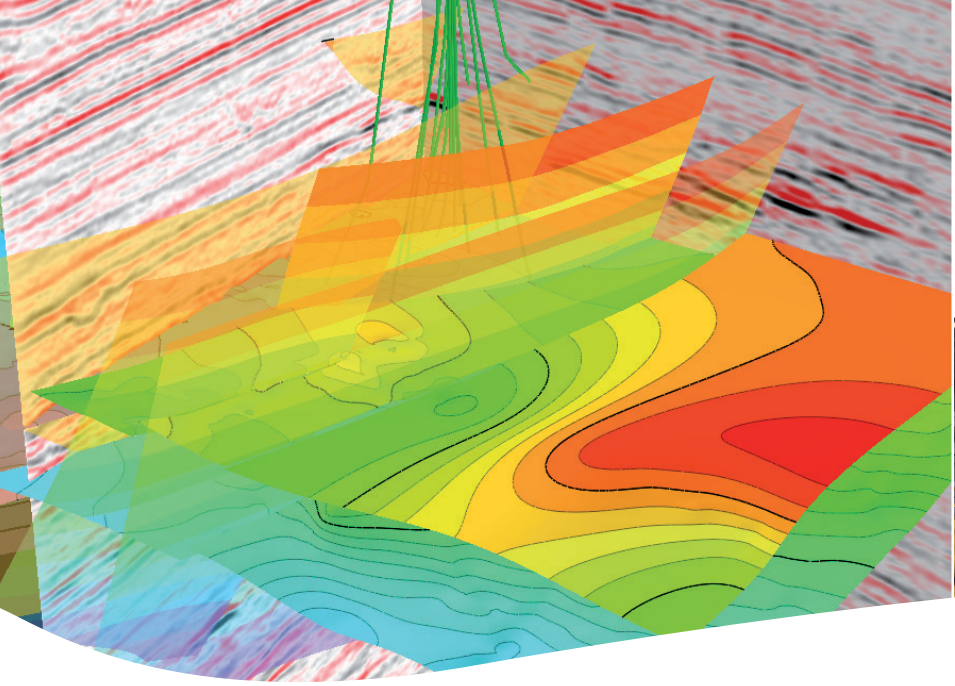

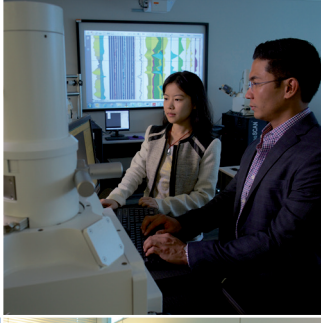

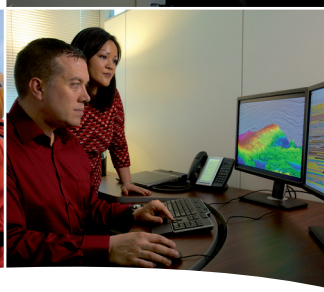

2016 Additional Information

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CGG
Passion for Geoscience

CGG – 2016 ADDITIONAL INFORMATION

EXPLANATORY NOTE

The information contained in this document, together with that set forth in the 2016 Annual report on Form 20-F filed with the U.S. Securities and Exchange Commission, both of which documents are in English, is equivalent to the information provided in French in the "*Document de Référence*" filed with the *Autorité des Marchés Financiers* on May 1, 2017.

This document is a free translation from French into English of some information from the *Document de Référence* that is not included in the 2016 Annual report on Form 20-F. Should there be any difference between the French and the English versions, only the text in French language shall be deemed authentic and considered as expressing the exact information published by CGG.

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1. FINANCIAL RESULTS OF CGG SA (GROUP HOLDING COMPANY) OVER THE LAST 5 YEARS

In Euros	2012	2013	2014	2015	2016
I. Financial position at year-end					
a) Capital stock (see note 1)	70,556,890	70,756,346	70,826,077	70,826,077	17,706,519
b) Number of shares outstanding (see note 1)	176,392,225	176,890,866	177,065,192	177,065,192	22,133,149
c) Maximal number of shares resulting from convertible bonds (see note 2)	24,150,635	24,150,635	11,200,995	26,372,016	1,160,368
d) Total Equity	3,055,018,985	2,392,170,912	1,122,589,689	1,728,884,020	2,065,969,391
II. Earnings					
a) Sales net of sales tax	78,050,986	83,453,121	92 140 684	73,984,308	49,107,467
b) Earnings before taxes, employee profit sharing, depreciation and reserves	63,067,618	92,708,863	143 398 567	2,005,006,600	424,222,896
c) Employee profit sharing	—	—	—	—	—
d) Income taxes	(38,921,264)	(19,662,650)	57,118,390	(106,127,156)	1,319,915
e) Income after taxes, employee profit sharing, depreciation and reserves	149,612,368	(663,879,383)	(1,269,581,222)	606,294,331	(841,019,498)
f) Dividends	—	—	—	—	—
III. Earnings per share					
a) Earnings after taxes and profit sharing but before depreciation and reserves	0.58	0.64	0.49	11.92	19.23
b) Earnings after taxes, depreciation and reserves	0.85	(3.75)	(7.17)	3.42	(38.00)
c) Net dividend per share	—	—	—	—	—
IV. Personnel					
a) Average number of employees	36	40	39	37	34
b) Total payroll	6,651,660	6,488,564	6,862,431	6,486,844	6,664,549
c) Employee benefits (social security, etc.)	2,799,497	3,089,229	4,729,717	2,797,478	2,301,997

Note 1: Main operations impacting the share capital and the number of shares of the Company, over the year 2016, are detailed in the note 7 to the 2016 Company's statutory financial statements and can be summarized as follows:

	2016	
	Share capital (Number of shares)	*(In millions of euros)*
As of December 31, 2015	177,065,192	70.8
Share capital increase	531,195,576	212.5
Sub-total	**708,260,768**	**283.3**
Reverse stock split	(686,127,619)	—
Change in the nominal value of shares	---	(265.6)
As of December 31, 2016	**22,133,149**	**17.7**

The Company carried out on July 20, 2016 the reverse stock split that the combined general shareholders' meeting approved on May 27, 2016. All shareholders received one new share (with all rights pertaining to shares), in exchange for 32 former shares.

Note 2: over the year 2016, the conversion ratios of the OCEANE 2019 and OCEANE 2020 have been adjusted as follows:

- 0.044 share of the Company for one OCEANE 2019; and
- 0.044 share of the Company for one OCEANE 2020.

2. CONSOLIDATED FINANCIAL RESULTS OF THE GROUP OVER THE LAST 5 YEARS

	2012	2013	2014	2015	2016
I — Financial position at year end					
a) Capital stock in millions of US$	92.4	92.7	92.8	92.8	20.3
b) Number of shares outstanding	176,392,225	176,890,866	177,065,192	177,065,192	22,133,149
c) Maximal number of shares resulting from convertible bonds	None	None	None	None	None
II — Earnings, in millions of US$					
a) Sales, net of sales tax	3,410.5	3,765.8	3,095.4	2,100.9	1,195.5
b) Earnings before taxes, depreciation and reserves	880.4	1 043.0	690.4	409.4	14.5
c) Income taxes	(99.2)	(82.9)	(123.8)	(77.0)	13.7
d) Income after taxes, depreciation and reserves	92.4	(691.2)	(1,146.6)	(1,446.2)	(576.6)
e) Dividends	—	—	—	—	—
III — Earnings per share (in US$)					
a) Earnings after taxes, but before depreciation and provisions [(a)]	141.72	173.68	102.40	60.07	1.27
b) Earnings after taxes, depreciation and provisions [(a)]	16.76	(125.04)	(207.22)	(261.36)	(26.05)
c) Net dividend per share	—	—	—	—	—
IV — Personnel					
a) Number of employees	7,560	9,688	8,540	7,277	5,766

[(a)] The calculation of the earnings per share has been adjusted further to the stock reverse split effective on July 20, 2016. The number of ordinary shares has been adjusted retroactively.

3. INFORMATION ON TERMS OF PAYMENT

As of December 31, 2016, the outstanding debt of the Company towards its suppliers amounted to €0.8 million. The breakdown of this outstanding debt per maturity date was as follows:

- due date not exceeding 30 days : €0.6 million;
- due date not exceeding 60 days: €0.2 million;
- due date exceeding 60 days: €0 million.

As of December 31, 2015, the outstanding debt of the Company towards its suppliers amounted to €3.1 million. The breakdown of this outstanding debt per maturity date was as follows:

- due date not exceeding 30 days : €2.6 million;
- due date not exceeding 60 days: €0.5 million;
- due date exceeding 60 days: €0 million.

4. INFORMATION ON THE UTILIZATION OF FINANCIAL INSTRUMENTS

More than 74% in 2016 and 2015 of our turnover is denominated in US dollars and to a more limited extent in Brazilian Real, Canadian Dollar, Renminbi-Yuan and in the other Western European currencies such as Euro, British pounds and Norwegian kroner.

Most of our expenses in 2016 are paid in US dollars, Euro, British pounds, Norwegian krone and Renminbi-Yuan. We attempt to match foreign currency revenues and expenses in order to balance our net position of receivables and payables denominated in foreign currencies. 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 France and Europe.

In order to improve the balance of our net position of receivables and payables denominated in foreign currencies, we maintain our financing primarily in US dollars. At December 31, 2016 and 2015, our total outstanding debt denominated in US dollars was US$1,879 million and US$1,874 million and, respectively, representing 67% and 66% of our total financial debt outstanding at such dates.

In addition, our general policy is, when possible, to hedge major 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.

As of December 31, 2016 we have no forward exchange contracts outstanding.

As of December 31, 2015, we had US$5 million of notional amounts outstanding under U.S. dollars against euro forward exchange contracts.

As of December 31, 2015, we had US$14 million of notional amounts outstanding under US dollars against British pounds forward exchange contracts.

As of December 31, 2015, we had US$26 million of notional amounts outstanding under US dollars against Norwegian Kroner forward exchange contracts.

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

5. RATINGS OF THE CREDIT AGENCIES FOR CGG

We receive from the Credit Agencies a ratings outlook, which assesses the potential direction of credit rating over time. In determining a ratings outlook, consideration is given to any changes in the economic and/or fundamental business conditions of a company.

Ratings of the Credit Agencies for CGG as of the date of publication of the annual report:

	Standard & Poors (report dated January 10, 2017)	**Moodys** (report dated January 17, 2017)
Outlook	Negative	Negative
Corporate credit rating	CCC-	Caaa3
Senior secured debt	CCC	Caa1
Senior unsecured debt	C	Ca

6. PROSPECTS

6.1. MARKET ENVIRONMENT

The growth of the oil services sector, and therefore of the seismic sector, slowed down significantly from the middle of the year 2013 because of the major international oil companies cutting back on exploration projects, and more broadly on Exploration & Production investment expenses, in order to generate greater cash flow in the short term and maintain the expected level of dividends for their shareholders. This trend was confirmed during the year 2014, with overall Exploration & Production expenses finally stabilising and seismic expenses falling by 10%. During the second part of 2014, the price of a barrel of oil fell sharply and swiftly following notably the lack of discipline of main producing countries who mostly favoured maintaining their market shares by producing more and let supply and demand fix the fair market price. Thus, in the space of seven months, oil prices fell by 59%, going from US$115 per barrel (middle of June 2014) to US$47 per barrel (middle of January 2015), which led to oil companies drastically reducing their Exploration & Production spending forecasts for 2015.

In 2016, the average Brent oil price settled at nearly US$45, down 15% from 2015. At this pricing level, the International Oil Companies (IOC) do not generate positive cash flow after payment of the dividend and Exploration & Production investment expenses. As far as the National Oil Companies (NOC) are concerned, the priority is the management of the oil income and the rate of decline of their fields. In this respect, Exploration & Production investments in 2016 went down by about 30% compared to 2015. For the first time since 1986-87, these investments experienced two years of consecutive reduction. The Exploration investment expenses (which bolster the majority of the CGG Group's activity), are even more in decline with a ratio of exploration expenses to Exploration & Production expenses at the lowest for 16 years.

In terms of production, if shale oil activity has been a lot more resilient than expected due to productivity gains, the surprise came from OPEC decision by end September 2016. Main Middle-East producing countries decided to constrain their production at 32.5 mb/d to sustain prices weakened by the excess supply. The price per barrel immediately rose by 10% to US$50. The organization officially implemented this policy on January 1, 2017 and seems on its way to extend it over the second half of 2017.

In the context of an oil price stabilised and above US$50 since the beginning of the year (US$53 by mid-April), oil companies forecast a slight increase in Exploration & Production expenses by 7/9% for 2017. This growth actually comes with a strong geographic disparity, as the capex progression would reach circa 30% in the United States and 3% internationally. Onshore activity, in the Middle-East in particular, shows preliminary signs of recovery. As for the offshore activity segment, many exploration or development projects have been frozen or stopped, since the cost price per (future) barrel extracted from an area of deep or ultra-deep water is still often well above the current average price per barrel. No substantial recovery is expected for this segment in 2017.

But this situation of under-investment in oil exploration, and particularly in offshore exploration, does not seem sustainable over the long-term. Currently, the growth in production from conventional onshore deposits (Iran, Iraq, etc.) and the productivity gains from non-conventional deposits (shale oil in the United States) allow both the growth in worldwide demand and the natural depletion of deposits being operated to be addressed. In the medium-term, this continuous and rapid depletion of conventional onshore deposits will result in a renewal of producers' seismic imaging needs, particularly in the Middle East, China or Russia. Over the long term, it will not be possible to satisfy the growth in worldwide demand without the development of new offshore deposits, which will only become profitable again after a significant reduction in the costs of oil services, obtained particularly through a better collaboration between the service companies and the oil companies across all stages of a deposit's operating chain and the development of an integrated vision for the reservoir. Consequently, these changes allow us to glimpse favourable long-term growth prospects for geophysics and geosciences.

6.2. A COMMERCIAL STRATEGY BASED ON TECHNOLOGY DIFFERENTIATION

The Group will continue to focus its strategy on high-end seismic equipment and services, and on integrated solutions in the geology, geophysics and reservoir characterisation disciplines. The aim is to develop solutions based on a cross-disciplinary approach, integrating the most innovative technologies of each area of the Group's expertise whilst improving or adapting these technologies to its clients' needs. This is particularly the case with the StagSeis multi-client programme in the Gulf of Mexico or the “Bedias Creek” survey in respect of shale oil hydrocarbons in the United States, which combined the Group's equipment, acquisition, subsurface imaging and geological expertise activities. In addition to the high quality of its services and technology, for CGG, attention to the sound management of health, safety and environmental matters (HSE) is crucial to establish lasting relationships with its clients.

CGG believes that its long-term differentiation will result from developing acquisition technologies using high-end seismic equipment and combined with sophisticated subsurface imaging. This combination will significantly improve image quality and maintain reasonable product lead times, in line with its clients' exploration and drilling decision-making process. This technological differentiation will be enhanced upstream by the Group's geological consulting expertise and downstream by its reservoir characterisation software and services to provide its clients with reliable static and dynamic reservoir modelling solutions to enable better assessment of known or future reserves and higher recovery rates in producing fields.

In general, the Group's clients are still focused, very early on in the production cycle, on the future positioning of the drilling wells and their configuration. This should translate into a steady interest, on the part of the oil and gas companies, in the technological content of seismic data in order to extract highly specific reservoir properties from it in advance of their investment decision-making process. The Group's clients will, in particular, want to predict stress fields and fractures to ensure the safety and accuracy of the well drilling and the extraction operations while optimising their return on investment. These requirements could strongly influence seismic processing and reservoir characterisation activities and thus significantly increase the geoscience component of the seismic market.

Sercel's innovative solutions

In terms of equipment, Sercel maintains a high level of research and development which is justified by the high technological content of seismic equipment which includes numerous cutting-edge technologies, such as wireless transmission, high- and low-frequency transmission or miniaturised electronic technologies, and also optical or acoustic technologies.

Sercel launched several new products the past few years, including:

- The Nomad 65 Neo and Nomad 90 Neo vibrators that allow the generation of a wider range of seismic wave frequencies and are therefore the ideal source for broadband seismic land surveys;
- GeoWave II, the first digital multi-level downhole array tool specifically designed to withstand high temperatures (up to 400°F/205°C) and high pressures (up to 25,000 psi/1,725 bars), and which allows for up to 120 levels to be deployed on a standard wireline;

- QuietSea, a passive acoustic monitoring system for detecting the presence of marine mammals during marine seismic surveys;
- GeoTag, the acoustic positioning solution of choice for seabed seismic acquisition, allowing the accurate positioning of all types of cable (OBC) or autonomous systems, on seabeds or in transition zones, for seismic surveys in depths up to 500 metres.

Developing and improving land and marine acquisition technologies

The Group believes that the growth in demand for geophysical services will continue to be linked to new technologies. The Group predicts that high-end surveys, such as high-definition 3D (BroadSeis), Broadband 3D, 3D Full Azimuth, and also 4D (with time as the additional dimension) and multi-component (3C or 4C) surveys, will play a key role in the future in Exploration & Production, especially in the sea deposits sector. With respect to the land sector, increased demand for ultra-high density surveys of sensors should result in teams deploying more than one hundred thousand channels appearing in the field in the next five years. This trend should transform the entire land acquisition chain, with developments focusing on low-cost sensors, more mechanised deployments and more automated data quality controls.

Improving imaging and developing integrated solutions for reservoir simulation

To anticipate the exponentially increasing in data acquired (*Big Data*), considerable research and development efforts will be necessary for seismic data processing, data storage and management, and also investigating new parallel computer architectures which should enable such data to be processed in a reasonable time frame whilst making energy savings. The Group believes that, by continually improving its seismic data processing software, it will remain among the leading suppliers of high-end land and marine seismic services. Its research and development work will therefore continue to focus on improving imaging in complex zones to help exploration and production as a technology for characterising and monitoring reservoirs. The Group will also continue to develop lithological prediction (identification of rocky layers surrounding the accumulation of hydrocarbons) and reservoir characterisation and content applications, in particular 3D prestack depth imaging, subsalt depth imaging, broadband depth imaging, multi-component acquisition imaging and differential imaging unique to 4D surveys.

6.3. OUTLOOK FOR GROUP ACTIVITIES IN 2017

Commercial outlook

The Group's seismic activity (equipment, acquisition and imaging) is strongly correlated to the exploration activity and should therefore be stable over the year 2017. More generally, the geoscience activity should also be steady since the oil companies should continue to lower their expenses and rearrange their asset portfolios through numerous asset disposals, which will result in a wait-and-see mode in terms of Exploration & Production.

Industrial outlook

In 2017, the Group will focus on the financial debt restructuring, while continuing to execute its Transformation Plan. In general terms, CGG will continue to develop and promote high-end solutions: upstream with its equipment offering; then in the acquisition field, which is essential for maintaining a strong and global relationship with the main ordering parties; and finally downstream with the services linked to the use of geological and geophysical data. It is because of the high level of expertise developed in each of its activities and their integration within the same company that the Group can forge both research and developpment collaborations and partnerships with its clients who value its technological expertise in all geoscience areas.

Equipment: Maintaining the Group's market share through technology and a strong client base

The Group feels that the seismic equipment market will remain at a low level overall, particularly affected by a significant weakness in demand for marine seismic equipment (lower internal sales in 2017 after the Sentinel MS order in 2016) because of the very sharp reduction in industrial investments of the Group's main clients and the financing difficulties some of them are facing. The land seismic equipment market should increase in 2017 due to the demand improvement for downhole products and, geographically, thanks to the Chinese demand for old equipment replacement. Sercel can be supported by growing sales of the 508^{XT}, its next-generation land acquisition system, whose quality and functionality were demonstrated in the field throughout the year. In the medium-term, the land equipment market should be spurred by the need for better imaging of conventional onshore reservoirs that are currently being operated particularly intensively (with the increase in volumes produced aiming to offset the drop in prices as best as possible) in order to better control their depletion.

Overall, the geophysics market is characterised by ever increasing demand for new technologies, both in land and marine, to achieve high-resolution imaging. The Group predicts that this trend will continue in the coming years. Because of its strong reputation and past success, Sercel should be able to maintain its leading position in the seismic equipment market, capitalising on its installed base, the implementation of new technologies in its full product range and also its diversified geographical presence.

Contractual Data Acquisition: Retaining expertise and optimising exposure

In 2014, the marine seismic industry had to demonstrate discipline in view of the deteriorating conditions in the marine contract activity, with prices having dropped by more than 10% on average. CGG announced its decision to reduce the size of its fleet from 18 to 13 3D high-capacity vessels and this step was followed by the other principal players in that market. By the end of 2014, the market contracted even more sharply as a result of the drastic reduction in offshore Exploration & Production budgets by oil companies. The utilisation rate for the fleets of all market players also decreased significantly in the first half of 2015. Against this background, CGG ceased operating 2 3D vessels at the start of 2015, keeping no more than 11 in operation. Despite this adjustment and those of other players, prices dropped to levels which had never been seen in the past, as, since the second quarter of 2015, the revenue generated by a vessel is close to the cash cost for operating it.

In such an environment CGG announced, at the start of November 2015, an additional step in its Transformation Plan for the marine seismic acquisition activity, with its decision to withdraw 6 additional vessels from its fleet, in order to operate no more than 5 3D high-capacity vessels. In fact, the Group considered that the contractual marine seismic acquisition activity should remain depressed for a long time with very low price conditions generating heavy operating losses due to lower demand following the sharp reduction of exploration programs, less appetite for frontier exploration and a structural oversupply linked to a large number of good cold-stacked vessels which can quickly come back, at a low cost.

In 2016, the Group has therefore decided to drastically reduce its exposure to the marine contract market and to reposition the size of its fleet towards its needs in the area of the production of multi-client studies that are sufficiently pre-funded (at above 70%), which means operating 5 3D vessels. The marine seismic acquisition activity will therefore be mainly a technological tool for the acquisition of multi-client data.

The worldwide 3D high-capacity seismic fleet, which stood around 37 active vessels at the end of 2016 compared to 63 vessels at the end of 2013, could increase in 2017 in the light of cold-stacked vessels returning in operation following recent announcements made by different contractors. Marine prices should remain stable at a very low level in 2017, given supply elasticity.

CGG obtained two major acquisition contracts (including one bundled contract with processing) that will occupy 3 vessels for around 6 months. For this reason, in 2017, about half of our vessels could be dedicated to contractual acquisition.

In land acquisition, CGG continues with its development strategy in niche and technological markets, focusing on differentiation and operational excellence, avoiding as much as possible the commoditised part of this market. Its strategy, by mean of the UltraSeis broadband solution, is to meet the increasing demand for high-resolution land seismic acquisition or using a high-end technology, as is already the case in the Middle East and North Africa. CGG will continue to put long-term partnerships in place in key regions or markets, as has been done in the Middle East with TAQA and with Seabed Geosolutions BV joint venture, owned 40% by CGG and 60% by Fugro.

In multi-physics acquisition, the priority in 2017 will be to take advantage of the restructuring plan launched as early as in 2015 which allowed initiating the cost base reduction. The aircraft fleet rationalisation program will continue with the aim of reducing the number of different aircraft models to optimise their management. The Group has also planned to further pursue the synergies of electromagnetic and gravimetric measurements with the seismic data. Mining market conditions in 2017 should slightly improve due to commodities price improvement in 2016.

Finally, with a reduced seismic fleet, the revenue generated by the Contractual Data Acquisition segment (land, marine, multi-physics) should represent in the future between 15% and 20% of the CGG Group's turnover.

Geology, Geophysics & Reservoir: Developing an integrated geoscience activity

Investments in the multi-client activity increased moderately in 2016 (US$295 million) compared to 2015. For 2017, multi-client cash investments are expected between US$250 million and US$300 million with a pre-funding rate of over 70%, spurred by the undiminished appetite of oil companies for good quality multi-client seismic data in zones that they know well (Brazil, the North Sea, etc.) which can capitalize on their existing infrastructures and reduce the marginal investment cost. Moreover, CGG should benefit from interest in new prospecting zones, such as Mozambique.

The multi-client activity may continue to be an integrating factor for all of the Group's technologies (equipment, acquisition, imaging and geoscience), by creating products that will use the different areas of expertise developed in each of its product lines and which will allow its clients to prepare for their exploration programs and developments in the related basins as best as possible.

The Subsurface Imaging activity, although declining, was more resilient in 2016 than the Equipment and Contractual Data Acquisition activities, driven by the increasing complexity of the geologies to be imaged, which requires sophisticated and high-end algorithms, an area in which the Group has an unequalled position. In addition, the oil companies, wanting to obtain the best possible images to maximise their exploration efforts, are asking for more reprocessing of previous data in order to benefit, at a lower cost, from developments of new imaging algorithms. Despite that, the subsurface imaging market is following the global trend of reducing Exploration & Production spending by its clients, as the drop in the number of marine or land seismic acquisition projects directly results in a significant fall in the volumes of new data to be processed. As for the software sales and consulting activity, this was also affected in 2016, with a decrease in turnover in line with that of the Exploration & Production spending by its clients. Overall, the Subsurface Imaging and Reservoir activity saw its turnover erode in 2016 (a decrease of 29% compared to 2015). In 2017, the stability forecasted year-on-year will initially see a decrease in the first half, given the lag time between shooting and processing the data, before picking up in the second half.

Looking forward, the Group in this new format will get around 60% of its revenue generated by the Geology, Geophysics & Reservoir (GGR) activity.

Financial outlook

In 2017, the Group does not expect an improvement in the seismic and geoscience market compared to 2016. Against this background, the Group's priorities will be debt restructuring, continued cost reduction, sustained operational and commercial efficiency. Industrial investments (excluding capitalized development costs) should be between US$75 million and US$100 million in 2017. Multi-client cash investments should be between US$250 and US$300 million in 2017 with a pre-funding rate greater than 70%. Finally, there should be a downward pressure on cash generation in 2017, due to the lack of working capital positive effect as recorded in 2016.

7. RESEARCH & DEVELOPMENT ("R&D")

7.1. TECHNOLOGY INNOVATION AND RESEARCH & DEVELOPMENT POLICY

CGG's capacity to remain competitive in a depressed market while building for the future is largely dependent on its capacity for ongoing technological innovation. The Group believes that the future of the seismic industry relies on seismic equipment and services with a high technological content. With the market for products and services being subject to such downward pressure on prices, any development of new solutions - from initial design through to market launch - must make cost reduction the number one objective. Capitalizing on its integrated approach, CGG has the ability to reduce the cost of new solutions at each step in the value chain.

CGG is convinced that the seismic industry will develop new solutions that have a positive impact on exploration and production. The major focus areas for oil exploration - in "frontier" areas such as the Arctic, pre-salt structures deep offshore, and mountain ranges or jungles onshore - are difficult to image and constitute sensitive and complex environments. In production, the need for increasingly accurate reservoir monitoring, in terms of both recovery (maximizing oil recovery) and the risks associated with production ("geohazards"), requires our industry to conduct more repeat or time-lapse seismic surveys (4D) and to improve the accuracy of the data acquired in the shortest possible time. Lastly, as the common denominator in all this, reducing the cost of new solutions is vital to the short-term survival of all industry players.

With its experience, expertise and involvement in every aspect of the seismic industry, CGG is ideally placed to design and implement such new solutions.

To implement this vision, CGG focuses its efforts on the entire exploration-production chain, including reservoir characterization, the development of full-bandwidth seismic data processing techniques, structural imaging, and improved operational performance. These efforts focus on improving the illumination of geophysical targets during data acquisition while increasing operational efficiency and safety. With close to 700 employees, CGG's R&D teams are spread around the world and cover a broad range of areas of expertise.

The trend in gross R&D expenditure over the past three years, including capitalized development costs, is shown below:

	2016		2015		2014	
	in MUS$	as % of net revenue	in MUS$	as % of net revenue	in MUS$	as % of net revenue
Gross research and development expenditure	93.2	7.8%	143.1	6.8%	189	6.1%

7.2. KEY TECHNOLOGY INNOVATION AND R&D HIGHLIGHTS IN 2016

In the continued difficult environment experienced by the seismic industry in 2016, CGG only slightly reduced its R&D spending compared to 2015, thereby demonstrating its resilience in technological innovation as well as its continuing desire to differentiate itself from the competition with the high technological content of its various solutions.

In 2016, CGG launched a new source-over-cable marine seismic acquisition solution, called "TopSeis", which builds on its proven BroadSeis/BroadSource technology. This method delivers a unique illumination of the subsurface, especially for shallow target depths. The solution was developed and tested through close technical collaboration between all of CGG's business lines and a client and its implementation called for the development of complex modelling, a program of sea trials to qualify the system from a mechanical and safety standpoint, and the processing of 3D imaging surveys.

CGG also developed a "synchronized acquisition" technology in cooperation with a national oil company. This technology, which has been applied to the Horda/Tampen survey, can be used to improve operational performance by eliminating time-sharing between seismic vessels in busy areas (platforms, etc.). This has been made possible thanks to close cooperation between our Marine and Subsurface Imaging business lines.

In addition, CGG has developed a "synchronized source" technology as a result of cooperation between its Marine, Equipment and Subsurface Imaging business lines. This technology is based on a blending approach (data acquisition with overlapping shot records) to increase efficiency and resolution without compromising data quality and turnaround time. This technology has been successfully implemented by CGG's Multi Client & New Ventures (MCNV) groups in Gabon and Brazil.

Furthermore, CGG has begun to assess onshore and offshore acquisition systems using drone technologies. These promising innovations will continue to be developed over the next few years.

Building on CGG's EmphaSeis technology for operating vibrators with a wide frequency band and our experience in high-channel-count acquisition, our Land business line has reinforced its offering in broadband (6 octaves) seismic for acquisition projects of very high data density. This development is supported by Sercel's new 508^{XT} acquisition system. Given the very high volumes of data required for seismic imaging of reservoirs in the Middle East, these acquisition projects are designed to provide solutions to the specific problem of seismic data contamination onshore, by increasing the density of source and receiver points. Our optimized operating models allow for major productivity gains, and the integrated nature of our solutions ensures that the image provided is optimal for quantitative characterization of the reservoir.

In subsurface imaging, CGG continued to pursue and maintain a position of industry leadership and excellence in complex geology imaging as well as high-end broadband and time-lapse 4D imaging. Indeed, our R&D teams continue to deploy high-end compute-intensive algorithms such as least-squares migration and orthorhombic full waveform inversion to resolve the imaging challenges faced by our clients. On the operational side, we significantly improved our delivery time for fast-track images, with our latest record involving the delivery of an image only four days after the last field shot had been recorded. This means we can provide our clients with near real-time seismic volumes, helping them to expedite their exploration programs and bringing them the immediate guarantee of high-quality data. Throughout this year, our development teams made a significant effort to optimize all our algorithms with respect to the latest graphic processing unit (GPU) technology we use. This enables us to perform multiple mega-survey full waveform inversions efficiently, thereby providing the most accurate subsurface model for reservoir imaging and future reservoir work. In the area of production field monitoring, we expanded our toolbox to be able to process all types of time-lapse surveys, whether conventional permanent reservoir monitoring called node-to-node 4D or streamer-node 4D. This provides a complete picture of the reservoir history using all existing data.

CGG is also working on the combined processing of multi-physics and seismic data in order to exploit the synergy between these two types of measurements that are not sensitive to the same variations in geological property. CGG continues to provide results of exceptional quality that are recognized by the industry and delivered through a combination of seismic, resistivity, and gravimetry data to better characterize the near subsurface.

In terms of our Equipment business, Sercel continues to maintain a high level of research and development, justified by the high technology content of its equipment for land and marine data acquisition. This intense R&D activity has put Sercel at the cutting edge of cableless data transmission technology, the design and manufacture of low-noise sensors, and the design of miniaturized electronics that can withstand extreme environmental conditions. Sercel also conducts research into underwater acoustics. Its Nautilus (lateral and vertical positioning and steering for streamers) and SeaProNav (integrated navigation) systems have reached industrial maturity and are now the standard used to equip CGG's fleet.

Sercel's QuietSea aquatic activity monitoring system that is used to detect the presence of sea mammals during exploration surveys continues to gain market share and is recognized for its efficiency and user friendliness.

In 2016, Sercel continued to market its Sentinel streamer technology, including the latest product, the multi-sensor Sentinel MS, which features an acoustic vector sensor composed of a group of accelerometers arranged around a hydrophone.

Applications for the 508^{XT} land acquisition system have widened with new operating modes in different geographical areas. After being deployed for more than a year in the Middle East, this system demonstrated an unequalled availability rate due to its fault-tolerant architecture.

The 508^{XT} system is the best in class in seismic data acquisition, offering a simultaneous recording capacity of one million channels. This system also includes a number of new features facilitating increasingly complex land seismic exploration operations.

In logging, the GeoWave II offers an unrivalled performance for the acquisition of seismic data in deep, high-temperature and high-pressure boreholes.

7.3. PROSPECTS FOR TECHNOLOGY INNOVATION AND R&D

On the production side, improvements in monitoring techniques both in terms of acquisition equipment and seismic data processing help to optimize production from shallow reservoirs, improve recovery rates, and extend the life of fields through appropriate management. In major oil-producing regions such as the North Sea and the Middle East, these issues are of crucial importance for operators. However, they remain an important avenue of study for expanding the application of seismic surveys as a core discipline for optimizing production from deep reservoirs where resolution and reliability need to be improved.

On the exploration side, R&D achievements in the seismic domain are helping to identify prospective fields that are increasingly difficult to detect and reduce the associated drilling risks. As a result, the success rate of exploration wells is showing an increase even though the easy targets have been drilled first. The improvements that can be made through the application of new technologies therefore justifies the regular reprocessing of previously acquired data and, increasingly, the acquisition of new seismic data in areas that have already been surveyed in the past. In this way, technical progress directly affects activity, in particular our multi-client business line which is reprocessing legacy data with new algorithms.

Finally, as in most areas relating to the seismic industry, the concepts of "cloud" and "big data" will be increasingly integrated into the processing of seismic data, while the use of offshore and onshore drones should change medium-term operating models.

Anticipating the difficult market conditions in 2017, CGG will be redirecting parts of its R&D efforts to the development and optimization of the costs of its solutions so as to provide a sustainable response to the low price of the barrel. In this context, two major areas of development continue to stand out: cost reduction to address the short-term business context and high value-added technological differentiation in order to maintain technological leadership.

Reducing and optimizing the costs of solutions:

- CGG is capitalizing on its capabilities as a mainstream player in geoscience and its integrated offering;
- CGG will continue to define the optimum quality/price ratio across the entire geophysical value chain, and thereby reduce costs while guaranteeing delivery of the necessary information for client decision-making;
- The mechanization and automation of land and marine acquisition is another avenue for cost reduction that CGG is exploring. This approach necessarily requires a redefinition of existing operating models which have been used in both our Land and Marine business lines.

Technological leadership:

- Improving data quality by expanding the range of recorded frequencies : as high frequencies bring better resolution and therefore better geological characterization of reservoirs; while low frequencies ensure better penetration to detect increasingly deeper targets;
- Increasing data volumes through greater density of acquisition and increased azimuthal coverage to explore the geological target from all possible angles;
- Associating increasingly diverse data types (shear waves, well data, electromagnetic and gravity data in particular) so that the seismic image delivers the most accurate characterization of the subsurface in terms of porosity, permeability and fluid content (water and hydrocarbons);
- Broadband reservoir imaging with very fine quality control and a workflow that generates the best data for reservoir characterization;
- Developing marine vibratory source technology.

Despite the unfavorable context in 2016, CGG will continue to invest in research and development in order to support the Group's leading position and capacity for innovation with respect to both geophysical services and equipment. We intend to be well prepared and positioned for an inevitable improvement in the market.

7.4. INVESTING ACTIVITIES

In 2014 and 2015, our total capital expenditures – industrial, capitalized development costs and multi-client cash capital expenditures - amounted respectively to US$865 million (US$862 million excluding asset suppliers' variance) and US$430 million (US$415 million excluding asset suppliers' variance). In 2016, they decreased at US$400 million (US$395 million excluding asset suppliers' variance).

In 2014, 2015 and 2016, our industrial capital expenditures amounted respectively to US$225 million (US$222 million excluding asset suppliers' variance), US$104 million (US$89 million excluding asset suppliers' variance) and US$71 million (US$66 million excluding asset suppliers' variance).

Our capitalized development costs amounted respectively to US$57 million in 2014, US$42 million in 2015 and US$34 million in 2016.

In 2014, 2015 and 2016, our multi-client cash capital expenditures amounted respectively to US$583 million, US$285 million and US$295 million.

In 2016, our industrial capital expenditures and capitalized development costs (excluding asset suppliers' variance) were committed by Contractual Data Acquisition, GGR and Equipment segments for respectively US$28 million, US$60 million and US$12 million.

In 2017, our industrial capital expenditures (excluding capitalized development costs) are targeted to be in the range of US$75-100 million while multi-client cash capital expenditures should be in the range US$250-300 million.

From a general standpoint, industrial capital expenditures and capitalized development costs are financed through permanent funding (equity and financial debt) whereas multi-client cash capital expenditures are financed with funds from original participants. Original participants' funds are recognized as external revenues. The cash prefunding rate was of 92% in 2016 and is targeted to be above 70% in 2017.

8. SUSTAINABLE DEVELOPMENT

CGG's major contribution to sustainable development is based on providing, over the long-term, geoscience products and services, which enable better knowledge of, better access to and more efficient production of energy resources.

This business model is applied respecting employees, local communities and the environment.

CGG has been a member of the UN Global Compact since 2007 and every year its Chief Executive Officer reaffirms its commitment to respecting the environment and human rights, to promoting international labour standards and to combating all forms of corruption.

Performance in sustainable development again was awarded the distinction of Dow Jones Sustainability Index (World) listing in 2016, for the fifth year running.

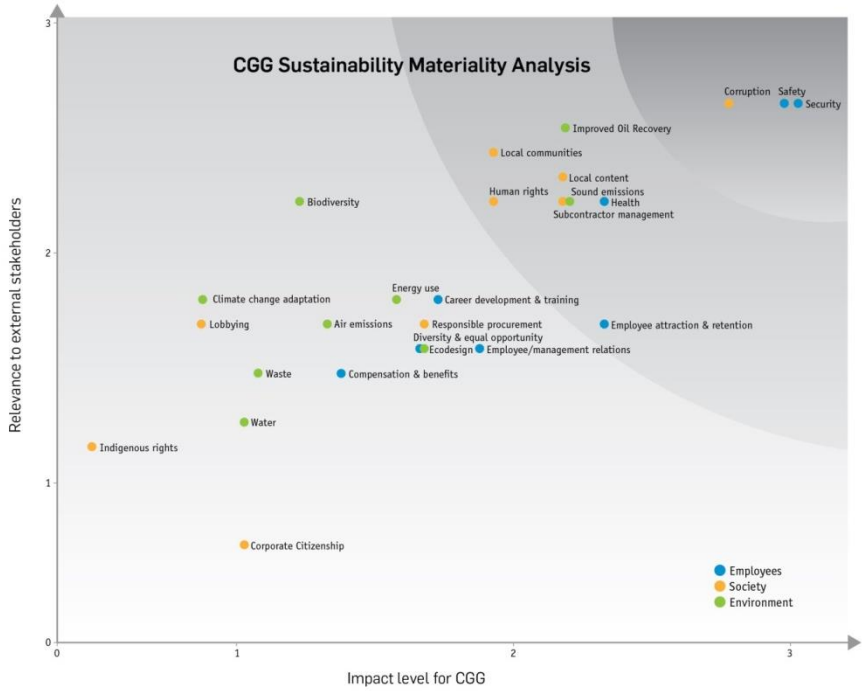
8.1. STRATEGY AND GOVERNANCE FOR SUSTAINABLE DEVELOPMENT

8.1.1. Ranking the issues relating to sustainable development: a regular exercise carried out with the stakeholders

Dialogue with the stakeholders is at the heart of CGG's sustainable development approach. Acknowledging the interest and contribution of its stakeholders in CGG's sustainable development, the Group maintains a continuous dialogue with these stakeholders and mobilises them on joint actions.

Thus, CGG listens to its stakeholders when validating its priority sustainable development issues. Every three years, the Sustainable Development department organises an extensive consultation involving CGG Management, a panel of employees, clients, investors, NGO and the trade association in order to identify the most critical sustainable development themes for the Group. These priority issues are highlighted in the dark grey and light grey sections of the graph below. CGG's internal perceptions are positioned along the x-axis in ascending order of importance while the weighting of the issues and therefore the expectations of external stakeholders are shown along the y-axis in the same order. The graph below shows the results for the consultation undertaken at the end of 2015. Safety, security and the fight against corruption stand out as top priorities. They are followed by environmental issues (optimisation of the recovery of natural resources, sound emissions), social issues (local content, respect for local communities and human rights, management of subcontractors), and problems related to attracting and retaining staff and finally the protection of employee health. This materiality study inspires the objectives and actions to be undertaken between 2016 and 2018.

Ranking of CGG's own sustainable development issues



8.1.2. Governance structures for CGG's sustainable development

8.1.2.1. Promoting an ethical culture and conduct

Values and rigorous ethical standards are foundations of development for the CGG Group. They require that we comply with laws and regulations and the principles of our Business Code of Conduct with regard to our clients, shareholders, employees, and partners. The Business Code of Conduct, available in nine languages within the Group and on the website www.cgg.com, sets out the rules and expected behaviour to assure that the Group conducts its business with integrity.

The CGG Ethics Committee publishes and communicates the Business Code of Conduct, ensuring the recommendations concerning ethics are widely distributed. This year, the Ethics Committee has issued guidelines on conflict of interest management. The Committee continues its communication and awareness-raising actions within the Group. It promotes ethics training throughout the Group, which is described in greater detail in the *Employees* paragraph of this chapter.

The Ethics Committee is notified of any issues related to the Business Code of Conduct, in particular through the whistleblowing procedure. This procedure, implemented in 2009, complies with the specifications of the Sarbanes-Oxley Act of 31 July 2002 (Article 301-4), the provisions of the Privacy Shield, and the requirements of the French Data Protection Authority ("Commission nationale informatique et libertés" - CNIL). Employees are regularly reminded of its existence in every communication regarding ethics. This year, the Ethics Committee has decided to review the form of this procedure, replacing the telephone solution with a more modern and efficient web solution that will be rolled out in early 2017.

The Ethics Committee meets several times a year. It presents its annual report to the Chief Executive Officer and to the Audit Committee of the Board of Directors.

In 2016, the Ethics Committee was called on fewer occasions than in 2015, which can be explained by the extensive restructuring plan conducted within the Group. However, the cases referred to the Committee were substantially similar in nature to those in previous years (e.g., conflicts of interest, compliance and discrimination).

8.1.2.2. Anti-corruption program

CGG's sustainable development materiality study underlined the significant risk of corruption inherent to our sector of activity. A robust Compliance Program is an important focus for the CGG management team; it demonstrates the drive to maintain an ongoing effort against corruption, building on program development the last years and assuring that these efforts continue into the future.

CGG expanded its anti-corruption program procedures and control processes e.g., due diligence, particularly in the context of the management of its partners including Joint Ventures, and service providers. In that context, the Compliance Department continued its close collaboration with the Risk Management Department, the Purchasing & Supply Chain Department, and Internal Control.

In parallel, CGG continues its various activities in regard to training (described in greater detail in paragraph 8.3.3.3 of this report) and communication. A new communication campaign has been launched within the Group in December 2016, joining the United Nations international days devoted to anti-corruption in order to sensitize Group employees to this particular risk.

8.1.2.3. Governance of sustainable development issues

Responsibility for all aspects of Sustainable Development (Health, Safety, Security, Environment and Social Responsibility) and the development of human capital rests with Management. For this, Management draws on HSE, Social Responsibility and Human Resources professionals in Business Lines and Group Functions, to support their management system.

The Group's Executive Management plays a vital role in defining the terms and conditions under which CGG can develop its business while protecting its employees, communities neighbouring its installations and the environment. CGG's leadership in sustainable development is established from the top through the formulation of specific expectations on HSE performance, regular communication, monitoring of performance throughout the year and implementation of any required changes following periodic formal reviews.

The Sustainable Development Committee supports Management by defining the guidelines for the Sustainable Development program. Three times a year, this Committee reports on the progress achieved to the Corporate Committee (C-Com) and to the HSE and Sustainable Development Committee of the Board of Directors. Regular reviews are also carried out by Business Lines, the Corporate Committee and the Sustainable Development Committee to check that the system is operating correctly. These reviews make it possible to identify areas for improvement and corrective measures to be applied, and ensure that suitable resources are made available to achieve the expected results.

8.2. HEALTH, SAFETY, SECURITY, ENVIRONMENT AND SOCIAL RESPONSIBILITY

8.2.1 Material issues on Health, Safety, Security, Environment and Social Responsibility ("HSE & Social Responsibility")

CGG's top sustainable development priority consists of preventing workplace accidents and occupational diseases among its employees and sub-contractors in its areas of prevailing influence. Historically, the Group's main risk activities have been road transport, helicopter operations, tree felling in forests, and the crossing of lakes and rivers. CGG is also committed to providing a healthy work environment with no addictive substances in the workplace.

The security of its employees is another absolute priority for CGG. The Group is exposed to threats of burglary, assault, piracy and terrorism, which it counters through a system based on prevention and dissuasion.

Through its seismic data acquisition activities, CGG covers considerable distances each year in varied and often isolated environments, sometimes operating in fragile ecosystems. CGG seeks, therefore, to develop methods and equipment enabling its customers to prevent or reduce their environmental footprint, whether in the acquisition of geophysical data or in the phase of hydrocarbon production. In particular, CGG seeks to contribute to better knowledge of the potential impact of its sound emissions on the marine environment so as to adapt where necessary the protection measures used.

Finally, with regards to Social Responsibility, CGG focuses on the fight against corruption in all its forms (described in paragraph 8.1.2.2. of this chapter), respect for and economic development of local communities that host our sites and activities and respect for human rights and fundamental rights at work.

8.2.2. Policies applied to Health, Safety, Security, Environment and Social Responsibility ("HSE & Social Responsibility") issues

8.2.2.1. Policies and objectives

CGG applies an HSE & Social Responsibility program based on the conviction that all accidents can be prevented.

CGG's HSE & Social Responsibility expectations are established by the Chief Executive Officer and are included in HSE, Sustainable Development, Health and Well-being, Security and Environment policies. Every employee has access to these policies, either via the Internet or in displays at the Group's sites. These policies are supported by three-year objectives set by the Chief Executive Officer and incorporated in the "Care+Protect" program.

Group objectives defined by the Management applying to the areas of health, safety, security, the environment and social responsibility target more specifically the commitment of management bodies and their visibility on these topics, risk management, subcontracting management, skills and training. Each Business Line adopts these objectives and specifies them in annual programs so as to best respond to the issues characterising their activity. In this way, every level of the organisation is clearly informed of the expected results and called on to help achieve them. Consequently, these Group objectives are also translated as personal objectives for the management team.

8.2.2.2. The operational management system for health, safety, security, the environment and social responsibility (HSE-OMS)

CGG's structured approach to health, safety, security, environment and social responsibility is based on a management system addressing these themes (known as the *HSE Operating Management System* – HSE-OMS), recently reviewed in depth to comply with the latest recommendations of the *International Oil & Gas Producers* (IOGP) for the Development and Application of Management Systems, which has become the *de facto* industry standard. HSE-OMS applies to all of the Group's activities across many domains: health, safety and security of permanent and seasonal employees and contractors, as well as environmental protection and social responsibility in all its projects and facilities.

Risk management is at the core of our HSE-OMS. The Group maintains a structured approach aimed at identifying, assessing and controlling risks, based on a common group-wide global methodology and model for risk management. Risks are assessed for each project or permanent installation. They incorporate the history of incidents recorded in the Group's database and those in the database shared with the *International Association of Geophysical Contractors* (IAGC), which covers several decades of incidents.

Through systematic risk assessments, and in particular the targeted identification of high-risk activities, we determine the necessary controls to manage safety risks. These controls include procedures, work instructions, specific risk management training, site meetings and daily on-the-ground HSE inspections, supplemented by cross-department inspections. The latter are carried out by a person from outside the entity inspected. Exercises carried out periodically at the installation and project level mean that the effectiveness of the emergency response plans can also be checked. At the site and project level, the line management carries out its own inspections and observations. An annual audit plan is drawn up to check that the policies and key processes of the HSE-OMS are implemented and respected in all its activities. The environment of controls and monitoring is coupled with a culture of individual responsibility.

Individual risk awareness and personal responsibility are essential elements of our *HSE-OMS*. A behavioural safety program entitled "Rules to Live By" and "Things We All Must Know" has been in force since 2011. This program focuses on the Group's main safety risks, is published in multiple languages across all activities. These rules are supported by visible posting on the workplace and clear instructions, particularly concerning consequence management.

Good management of HSE and social responsibility risks requires transparent reporting and fast and efficient communication. Comprehensive notification of all incidents, near-misses and hazards is crucial to obtain good results. Our information system, PRISM, has been developed in-house for this purpose. PRISM is an application that allows HSE, Quality and Social Responsibility files to be shared by all CGG sites and operational units. It also allows analyses to be produced, performance to be monitored – including risk assessment and management – and the action points to be managed. All of CGG's employees have access to PRISM. Incidents are assessed according to their actual and potential severity. A subscription system allows for immediate notification to the appropriate level of management, including the highest level for incidents with high potential.

The final element in the Group's management system is management review; management reviews are held at Business Lines, Executive Committee and the Board HSE and Sustainable Development Committee. They ensure the system's proper operation, identify areas for improvement and the corrective measures to be applied, and finally help ensure that suitable resources are in place.

Health

CGG implements occupational health programs related to public health and well-being at work, aimed at maintaining quality of life at work through medical fitness for the work, and at preventing occupational diseases. The management of risks and impacts on health is systematically adapted to the local environment. It therefore takes into account the issues specific to very isolated areas and adapts the means of protection, rescue and assistance for the staff exposed, especially in the case of land projects. In 2016, preventive actions were undertaken including against threats linked to the Zika virus and local flu vaccination campaigns were organised.

Safety

Our risk analyses and prevention programs are directed first and foremost at high-risk activities (for example, road transport and offshore helicopter transfers of teams). This year we have continued to bolster these everyday risk management and prevention programs through the development of e-learning training modules accessible to everyone and by producing a large number of posters and stickers covering risk exposures. Each Business Line has implemented a specific prevention program, for instance, Marine Acquisition focused on a new "Leader - Leader" behavioural safety program.

Security

CGG has implemented a security intelligence and monitoring system to identify and assess threats in areas prone to maritime piracy and potentially unstable areas onshore. Projects in areas at risk are reviewed at the highest level. These reviews are supported by security experts. Local security plans, linked to projects, are developed and implemented before operations start. All staff also receive regular security information concerning the countries where they operate.

Environment

CGG implements environmental plans in all its Business Lines. These plans are aimed at eliminating, or otherwise, reducing the impact of its activities on the soil, water, fauna, flora and atmosphere. The range of geoscience services offered by CGG to its clients also allows them to reduce their own environmental footprint. This is what the materiality study presented in 8.1.1 identifies as "Improved Oil Recovery".

There is an area where assessing the actual impact of activities remains difficult because of incomplete scientific knowledge; this involves the effect of sound emissions from marine seismic acoustic sources on marine life. Therefore CGG supports research in this area while applying risk prevention and mitigation measures on board its ships by teams of marine mammal observers. These ensure compliance with the applicable regulations established by the countries in which we operate. In the absence of national regulations, CGG applies the measures recommended by IAGC for the reduction of risks to cetaceans.

Social Responsibility

CGG is committed to proactively developing and maintaining harmonious relationships with the local communities living close to its permanent centres and seismic acquisition projects. The "Community Relations Management Plan" (CRMP) and its four associated guides (Management of fishing activities, Management of permitting and access to land, Managing local temporary staff during onshore surveys, and Implementation of a Sustainable Development project) enable operators to ensure the proper management of seismic acquisition surveys when they significantly impact the way of life of a community. Finally, in order to contribute positively to the socio-economic development of these communities, CGG seeks whenever possible to source from domestic suppliers and to hire and train staff native to the country of activity. In order to recruit a skilled workforce as close to our centres as possible. CGG signs many cooperation agreements around the world with local universities which provide for the donation of education licences for our reservoir characterization and seismic data processing software.

As a signatory to the United Nations Global Compact since 2007 and in compliance with our Sustainable Development policy and our policy to exclude child labour, CGG particularly undertakes to operate in the 39 countries where it is present in according to the Universal Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work and the United Nations Convention against Corruption. This commitment is also reflected in our purchasing policy, notably through a suppliers' code of conduct setting out the minimum social and environmental standards expected of our suppliers.

8.2.2.3. Promoting excellence and innovation in HSE & Social Responsibility

For many years, seismic acquisition projects implemented internal recognition measures rewarding proactivity with regard to HSE. The quality and quantity of notifications of hazards and near-misses reported at the project level are therefore generally linked to a system of material rewards and formal recognition by the local management.

At Group level, since 2014, CGG has also organised the annual Care+Protect reward program. The prizes reward CGG teams that have achieved HSE or sustainable development excellence through technological development, innovative practices, or as the results of an original initiative. A special prize has also been awarded to the most deserving sub-contractor or business partner.

CGG continues to play an active role in the HSE Committee of the *International Association of Geophysical Contractors* (IAGC) and participates in a number of working groups organised by the *International Oil and Gas Producers* (IOGP). These committees facilitate the sharing of lessons learned from the management of major near-misses or accidents, the dissemination of best practices, and review and improvements to HSE standards in the Exploration & Production industry.

In 2016, CGG joined two new work groups. The first, focused on environmental innovation, derives from the Avenia Geosciences competitiveness cluster. The goal is to create collaborative research and development projects among French companies in the energy sector, consultancies and academia. The second, the Human Rights Club, is led by the French United Nations Global Compact network. It is a platform for sharing expertise across the association's members and discussing how to prevent, manage and respond to risks related to human rights violations.

8.2.3. Main results achieved for health, safety, security, the environment and social responsibility

The key performance indicators related to material HSE & Social Responsibility themes, as well as indicators concerning some non-material themes, are listed in paragraph 8.4 “HSE & Social Responsibility Indicators” of this report.

8.2.3.1. Health

Frequency rates for occupational disease are stable or improving, the severity rate is falling.

The following table, based on IOGP rules, covers occupational diseases (OD) excluding the Equipment Business Line.

	OD with days lost frequency rate (LTIF)	Recordable OD frequency rate (TRCF)	Severity rate LTI lost days × 1,000/hours	Hours (millions)
2014	0.12	0.35	0.001	48.5
2015	0.08	0.33	0.003	47.8
2016	0.09	0.14	0.001	21.6*

LTIF = (Fatalities+ Lost Time Incidents)*1,000,000/hours.
TRCF = (Fatalities + Lost Time Incidents + Restricted Work Cases+ Medical Treatment Cases) x 1,000,000/hours.

8.2.3.2. Safety

CGG measures safety performance by the frequency of occupational accidents with Lost Time Injury. These indicators include permanent and seasonal Group employees and subcontracted staff working under our authority.

	Fatal accident rate (FAR)	Lost time injury frequency rate (LTIF)	Recordable accident frequency rate (TRCF)	Severity rate	Cases of total permanent or partial disability	Hours (millions)
2014	1.8	0.42	1.79	0.010	0	54.8
2015	1.9	0.29	1.38	0.003	1	52.1
2016	0	0.25	1.40	0.004	0	24.3*

LTIF = (Fatalities+ Lost Time Incidents)*1,000,000/hours.
TRCF = (Fatalities+Lost Time Incidents+Restricted Work Cases+ Medical Treatment Cases) x 1,000,000/hours.

(*) In 2016, CGG changed the convention for calculating hours, aiming for greater consistency among our different Business Lines but also with our industry associations (IOGP and IAGC). Following the consolidation, the hours worked and not the hours exposed are taken into account (as at offshore sites and camps). The total of hours for 2016 is thus lower than it would have been under 2015 convention. For information, with former computing method, the lost time injury frequency would have been 0.16, the total recordable cases frequency 0.9 and the severity rate 0.003.

The Group records a decline in the frequency rate for the total number of cases registered. The frequency of HSE incidents with high potential severity (potentially fatal incidents including near-accidents), which is tracked worldwide, rose slightly.

In 2016, CGG recorded deterioration in the frequency rate of infringements of the "Rules To Live By" and "Principles We all Must Know"; this is relative to the change in calculation methods.

CGG has continued its transport program by focusing on driving skills and assessments. CGG uses *In Vehicle Monitoring Systems* (IVMS), *Speed Limiting Devices* (SLD), *Roll-over Protection*, and there are always trainers in defensive driving on our crews. Our *Motor Vehicle Crash* (MVC) rate, however, deteriorated in 2016.

	MVC rate	Kilometres travelled
2014	0.60	26,000,000
2015	0.44	22,500,000
2016	0.74	18,900,000

8.2.3.3 Security

In terms of security, maritime piracy in the Indian Ocean has fallen sharply; however, it continues in the Gulf of Guinea and in Southeast Asia. Furthermore, the return of terrorists from the combat zones of Iraq, Syria and Libya has contributed to the increase in the jihadist threat in North Africa and the Middle East.

8.2.3.4 Environment

Reduction of the environmental footprint in the value chain

In 2016, land and marine acquisition activities led teams to cover more than 117,652 km^2. Airborne acquisition flew over an area equivalent to the United Kingdom. CGG did not record any significant environmental incident.

Seismic imaging is essential in exploration, to correctly identify the location of natural resources reservoirs. The ratio of producing wells to dry wells has thus improved steadily since seismic imaging has been fully involved in the drilling decision-making process. This avoids drilling and harm to environments without any energy benefit ensuing. At the other end of the exploration-production value chain, CGG's geoscience services also help in minimising the sector's environmental impact. As an illustration, in Oklahoma, the expertise of GeoConsulting in reservoir characterisation in conjunction with the use of RoqSCAN have brought about a 46% improvement in the yield of a well while significantly reducing the total volume of chemicals injected for well stimulation. The detailed results were published in a key trade journal[1].

Sound emissions and the marine environment

In 2016, the detection of almost half of the marine mammals around CGG seismic operations was achieved through passive acoustic monitoring, illustrating how essential this technology has become. CGG achieved significant progress in reducing potential risks linked to sound emissions from marine acoustic sources thanks to QuietSea, the Passive Acoustic Monitoring (PAM) system launched by Sercel in early 2015. QuietSea which is fully integrated in seismic streamers is now installed on two CGG seismic vessels. Since its introduction, the system has accumulated 21 months of operation, ensuring detection of marine mammals at all hours and in all-weather conditions without ever experiencing technical downtime. Mitigation measures such as the soft start of seismic sources or the shutdown of sources in the vicinity of an animal can hence be implemented with more confidence. Improving the detection and localization of baleen whales in a 500-metre radius around seismic sources means that mitigation measures becomes more reliable.

2016 also saw the publication in a leading scientific journal of the results from a research project funded by CGG[2] assessing the impact of different types of sound emissions on fish, comparing the effects seen in the short term with the cumulative, long-term effects. Research professors thus exposed the post-larvae of seabass (*Dicentrarchus labrax*) to different types of sound emissions such as boat noise, pile driving and seismic operations over a long period and observed the resulting physiological effects on the fish. They revealed a stress in the short term but nevertheless observed the correct physiological development of the fish in the long term, regardless of the type of sound emission to which they were exposed. This project made it possible to prove and verify a scientific methodological approach that can support other studies into seismic sources with the goal of minimising their impact on the marine environment.

CGG also continues to support, through IAGC, the exploration-production industry's Joint Program on "Sound and Marine Life" which, since 2006, has provided US$55 million to support research. In 2016, CGG became part of the technical management committee monitoring the progress of the program's projects. The results obtained by different research projects are published on the site www.soundandmarinelife.org and presented at scientific conferences, such as the conference on the effects of noise on aquatic life held in Dublin in July 2016.

8.2.3.5 Social Responsibility

Management of local communities / local content

In 2016, CGG directly managed community relations on marine seismic acquisition projects in Brazil, Gabon, Ireland, Myanmar, Norway and the UK. On land acquisition studies, community relations' plans were rolled out in Algeria, Egypt, Spain and Oman. No significant detrimental impacts on the communities have been noted or reported.

Good practices in capacity building and community health were put in place in our operations, especially in the Land Business Line whose annual HSE & Social Responsibility objectives state that for each project a social initiative should systematically be set up to benefit local communities. At our permanent sites, the most widespread community-related good practices are blood donation campaigns. The Calgary, Houston, Massy, Mumbai, Perth and Rio de Janeiro sites have organised drives for several years, and allow their employees to give blood during their working hours.

Local Employment:

Maintaining long-term relationships with national partners is key to CGG's sustainable development approach. This is demonstrated by the Group partnership established in Saudi Arabia, with 50 years of shared experience, and more recently in Vietnam, nearly 5 years ago.

The Group's permanent sites primarily employ national employees. Thus, of the total workforce of the CGG Group (excluding field staff), 79% of employees work in a country of which they hold citizenship. Moreover, among the CGG sites employing more than 50 staff, 72% of managers hold the nationality of the country where they work.

Regarding short-term employment for Land Acquisition, locally hired staff and continuation of employment over several successive projects is favoured whenever possible. In 2016, CGG carried out land acquisition operations, either directly or through its participation in the Argas joint venture, in five non-OECD countries (Algeria, Angola, Saudi Arabia, Egypt and Oman), for a total of 517,500 workdays by employees who are nationals from those same countries.

To meet our local recruitment needs closest to our imaging centres, CGG GeoSoftware is engaged in a University partnership program that encourages innovative approaches to education in the geosciences. With over US$311 million (estimated market value), in licence donations or renewals recorded in 2016, this allows to train students on advanced industrial software and develop new reservoir characterization techniques on real data. This program is international in scope: in 2016, CGG GeoSoftware partnered with 129 universities throughout the world, including 37 located in countries considered to be developing (non-OECD countries). In most of these countries, software donations are very often accompanied by logistical help and donations of computer equipment.

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[1] *See G. Oliver et al., Advanced cuttings analysis provides improved completion design, efficiency and well production, First Break, vol. 34, February 2016*

[2] *'Radford et al., Repeated exposure reduces the response to impulsive noise in European seabass, Global Change Biology, vol. 22, issue 10, October 2016 (http://onlinelibrary.wiley.com/doi/10.1111/gcb.13352/full)*

Like CGG GeoSoftware, CGG Subsurface Imaging also maintains a partnership program with universities and scientific research institutes. To date, *geovation* licences have been donated to a total of 11 universities and research laboratories (of which 4 are located in non-OECD countries). The total market value of these licences is estimated at approximately US$5 million.

Local procurement for land surveys:

To properly conduct land operations in 2016 under the operational control of CGG, over US$15 million of supplies were purchased from local suppliers in non-OECD countries, thereby contributing to the economic development of these countries. The biggest expenditure categories are for personnel, overhead (camp, catering, telecommunications, travel, etc.) and equipment.

Human rights

Since 2013, CGG has been a "GC Advanced" member of the Global Compact, underlining its advanced level of implementation and higher degree of engagement concerning the issues of human rights and labour rights. With a view to continuous improvement, our report *Communication on Progress* was also this year subject to peer review by members of the GC Advanced club.

The 28 HSE & Social Responsibility audits carried out in 2016 all verified the application of the fundamental rights at work, such as eliminating forced labour and child labour, non-discrimination and respect for freedom of association. Since 2015 the observations issued concerning respect for these rights have also contributed to the overall assessment of the project or site audited. Any comments highlighted during these audits have all been subject to corrective actions.

It is also noteworthy that in 2016, the minority joint venture ARGAS adopted a Sustainable Development Policy. This policy is in line with the *Joint HSE statement* signed in 2015. In it, ARGAS executive management commits to fair business practices, environmental management and fundamental principles at work.

8.2.3.6 Training & Competence

The CGG HSE & Social Responsibility training programs are provided to the HSE community and to staff on all company sites, at CGG University and in the field. The variety of formats available (interactive classroom training, educational films, e-learning) seek to adapt the information to the public and optimize assimilation. CGG has completed over 71,688 hours of HSE on-site training to its employees and subcontractors in 2016. E-learning is a rapidly developing format, with 7,393 sessions followed by employees.

8.3. EMPLOYEES

8.3.1. Material issues concerning employees

8.3.1.1 Economic Environment and ensuing Human Resources (“HR”) issues

The CGG Group is a leading market player in Geosciences, which form an integral part of the oil services industry value chain. It operates in two different business sectors, "geophysical and geoscience equipment" and "geophysical and geoscience services ".

These sectors have been particularly affected by the continued deterioration of the market since 2013.

These economic difficulties have led the CGG Group to implement actions to respond to this market decline and limit the impact on the Group's results.

The main issue has been the preservation of maximum employment by promoting internal redeployment or outplacement including by action to provide guidance, training and support in the creation of new activities. Another key issue in HR policy has been to give renewed motivation to teams and allow professional and personal employee fulfilment in this context.

8.3.1.2 Training / HR Development

In a globalized economy which is marked by the continuous creation of new trades, continuing training and professional development are emerging as true strategic challenges. This competitive lever is an essential driver of innovation and growth.

It must constantly adapt to the new needs of employees which always require more personalisation, immediacy, and mobility.

8.3.1.2 Restructuring

The CGG Group confirms its global strategy to build an integrated group among equipment, seismic acquisition, imaging and reservoir models with multi-client activity that is transverse and allows the best use to be made of the expertise and technology of the whole Group.

To preserve the integrity of the Group and enable it to function long term in a difficult market, the transformation plan initiated in 2013 has been maintained once again this year with the implementation of an additional step to reduce the fleet of vessels, lower costs and adjust positions within the Group.

8.3.2. Human resources policies

8.3.2.1 Work Environment

CGG is committed to maintaining working conditions compliant with health, safety, and ergonomics standards to contribute to both employee well-being and performance.

Employee Assistance

The Employee Assistance Program was renewed with the American company, ComPsych, in 2012 for five years until 2017. This programme, provided by a third party, guarantees confidentiality for the employee and aims to provide personal and individual assistance in case of need: medical, social, professional, or legal.

In France, this program co-exists with other more conventional forms of social assistance implemented under French labour regulations: social assistance, CHSCT (Health, Safety, and Working Conditions Committee), and recourse of elected staff representatives. However, in countries where the structure or laws do not permit such recourse, it compensates for it.

Institutional labour relations

In order to promote cooperation and information exchange, the CGG SA - CGG Services SAS ESU (social and economic grouping) and Sercel SAS in France have representative bodies with which they organise a number of official meetings (Works Committee, Staff Representative Meetings, CHSCT, and various commissions) as well as trade union organizations with which agreements have been signed in France. Within the CGG SA - CGG Services SAS ESU, employee rights are guaranteed by a company labor agreement.

Body	Number of ordinary meetings	Number of extraordinary meetings
CHSCT	4	8
Works Comm.	12	9
Staff Rep. Meetings	12	3

Similarly, and in accordance with the law, staff representatives are elected for employees, field staff and expatriates of CGG International for a period of three years under the Swiss Code of Obligations. Elections for the Marine Committee took place in 2012 and led to the formation of a new committee in 2013, whose term of office was extended for a further year with the approval of the elected officials to implement the restructuring plan in 2016. The Land Committee was also renewed in 2013, after new elections, for an additional three years.

In Singapore, 93 employees are represented under the aegis of the collective bargaining agreement of December 31, 2012. These employees are represented by the SISEU (Singapore Industrial and Services Employees Union) which is affiliated to the National Trades Union Congress.

In Norway, a framework agreement was concluded with two staff representative unions. This agreement covers all office-based staff.

Compliance with international labour agreements

The Group adheres to the principles and rules of the core conventions of the International Labour Organisation (ILO). See further details in paragraph 8.2.2.2 (sub-paragraph “Social Responsibility”) of this report.

Measures to promote the employment and integration of people with disabilities

The Group, as specified in its Human Resources Policy, rejects all forms of discrimination in employment or during the career of its employees. In particular, this concerns discrimination against people with disabilities. The Group complies with national legislation on the subject and does not publish statistics on the subject due to the nature of its activities and the constraints related to the collection and analysis of information that might exist in some countries which prevents the Group from recording this information in its databases (discrimination).

In France, the Group is subject to Law No. 2005-102 of February 11, 2005 on equal rights and opportunities as well as the participation and citizenship of people with disabilities.

Agreement on gender equality

CGG is making a special effort to promote greater gender balance in managerial functions through promotions and targeted recruitment.

The agreement on professional equality signed for Sercel SAS on October 23, 2012 ended on December 23, 2016; a new agreement is being finalised to extend the specific actions on job desegregation, access to training, career paths and pay equity.

The Group's Human Resources Policy, published in 2010 and amended in 2012, explicitly provides for non-discrimination in hiring and equality of opportunity and treatment between men and women.

Remuneration Policy

CGG guarantees the homogeneity of the remuneration system while ensuring compliance with local practices. Rewarding the performance of each employee is at the heart of the implementation of mechanisms to share value created by the company.

This policy includes the following parameters:

- A competitive remuneration policy intended to attract, motivate, recruit, and retain skills needed by the Group.
- A remuneration policy that is consistent with market practices regarding base salary, variable share (short and long term), and benefits.
- Variable remuneration in keeping with the strategic objectives of the Group and aimed at the improvement of business performance.
- A remuneration policy in line with CGG’s culture and values: simple and fair systems, and the wish to actively encourage personal involvement, teamwork, innovation, and commitment to health, safety, environment, and sustainable development issues.

These general principles apply in each country where CGG has employees, in full respect for the legal framework.

In France (CGG SA - CGG Services SAS ESU, and Sercel SAS), the remuneration policy also contains the following specific elements:

- Mandatory Annual Negotiations: wage negotiations with social partners in 2016 did not lead to any agreements being signed. The 2016 pay increase was 0.72% of the total payroll for ESU and 0.5% of the total payroll for Sercel SAS. These increases were mainly intended to support internal mobility and promotions.
- Profit sharing: the agreement originally signed on June 30, 2007 and renewed on June 20, 2012 between the ESU and social partners was not renewed in 2015 or in 2016. Sercel SAS's profit-sharing agreement was renewed on June 18, 2015 resulting in a payment for 2015.
- Staff share scheme: The ESU's results did not permit a budget to be allocated for this. Within Sercel SAS, the current agreement did not give rise to any payment in 2016 (for financial year 2015).
- The supplementary savings and retirement plans, “PEE” and “PERCO” remain in force. As of the end of December 2015, 393 employees joined the “PEE” and 514 joined the “PERCO” in CGG SA and CGG Services SAS. Due to the end of agreement on employer additional contributions and only 2 employees joined the “PEE” and 5 employees joined the “PERCO” in Sercel SAS.

8.3.2.2 Training and career development training

The training policy, as a lever of individual development and vocational training of employees, is a priority of the Group which founded its own corporate university several years ago: CGG University.

The University provides training courses intended to foster the development of our employees and accelerate the integration of new employees in the Group's various activities. It offers internal programmes covering our core technical activities: seismic data acquisition, data processing and management, interpretation, geology and reservoir analysis, use of seismic equipment. These programs are imparted by CGG University and in conjunction with operational centres. CGG University also provides technical training for our customers.

It is strategic for the company that our employees are prepared to handle business, managerial and social aspects of a high technology company. This "Learning for Development" is one of the main drivers that has allowed programs on commercial and interpersonal skills to be developed.

This approach continues to be part of all programs rolled out. It reflects the need for the organisation and each employee to continuously acquire the knowledge and skills they need to adapt to changing technologies and working methods. It also reflects the need to adapt to external changes in business, organisational change and the evolution of internal processes. CGG University is organised to ensure that there is a close relationship between the internal training offer and operational needs.

8.3.2.3 Policy of guidance resulting from the restructuring

The strategic resizing of the Group aims at preserving the maximum number of jobs by promoting internal redeployment and, where dismissal is avoidable, by initiatives likely to promote outplacement in particular by action providing guidance and support in the creation of new activities and training.

In France in accordance with Article L.1233-32 of the French Labour Code, an Employment Protection Plan has been implemented in CGG SA, CGG Services SAS and Sercel SAS. This puts together a set of support measures designed to limit the number of redundancies by the establishment of an Information and Advice Point, a complete program for the purpose of strengthening efforts on internal mobility, and organising a voluntary redundancy process. This plan also includes a set of measures to limit the effects of dismissal as support to create business or job seeking, in order to ease employment if layoffs cannot be avoided.

Pursuing its risk prevention policy, the Management of CGG Services SAS and CGG SA ESU analysed the potential impacts of the restructuring project and drew up a specific support plan for employees that aims to complement measures already existing within CGG. This action fostered the deployment of the new target organisation and supported employees who might have been faced with individual or collective difficulties.

Switzerland, which employs and manages the international staff for the Group, has also set up a collective downsizing plan, promoting volunteer work and implementing a number of measures to save jobs. The plan specifically called for safeguarding a number of positions in Marine Acquisitions equivalent to the composition of a full team in order to maintain certain skills. To achieve this, various solutions have been implemented on a voluntary basis, including organisation of working time, subsidized sabbaticals or work on demand (operative on standby). Furthermore various options were proposed for severance payments, the payment of unemployment benefits, support for redeployment in the form of extended notice, and the assumption of outplacement or training costs. In this context an international network, "Employment Antenna", was established with a group specializing in the different countries of residence of the employees.

In other countries, reductions in workforce have been made in accordance with local law, with respect for our employees and the reputation of CGG (in particular, with regular communications proactively clarifying the economic and structural reasons for the staff reduction).

8.3.3. Main results relating to employees

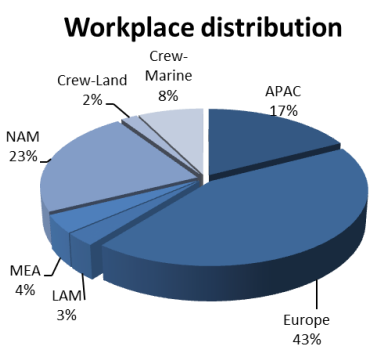
8.3.3.1 Situation and developments in 2016

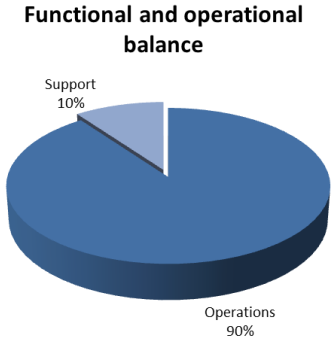
Work force

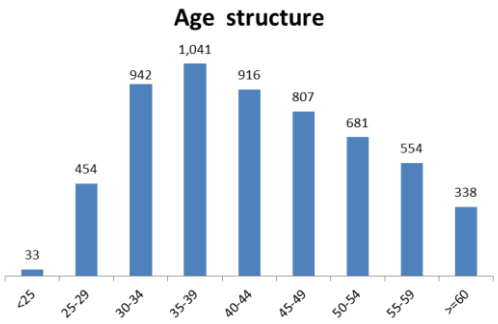
The figures below are for the CGG Group worldwide scope (see chapter on Methodology).

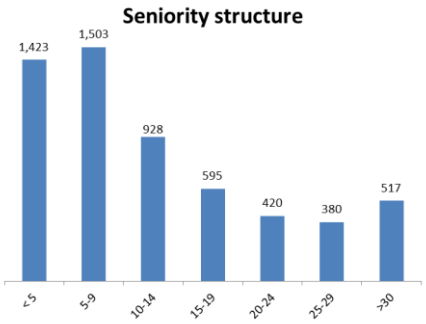
On December 31, 2016, le Group employed 5,766 permanent employees (against 7,277 on December 31, 2015). The following are the main indicators of the Group's human resources:

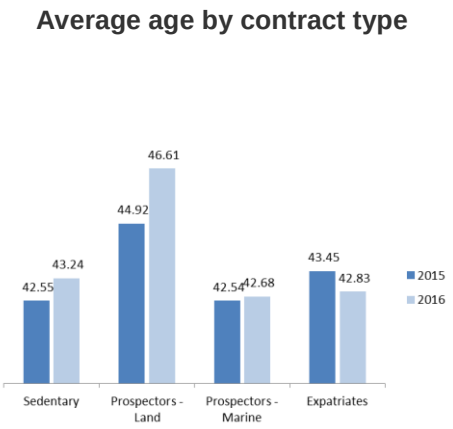
- 5,766 employees;
- over 85 nationalities;
- over 70 locations worldwide.

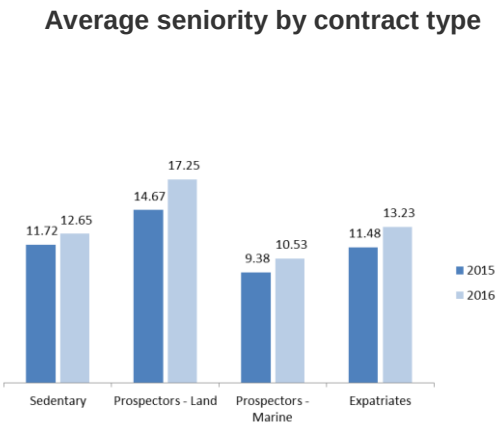












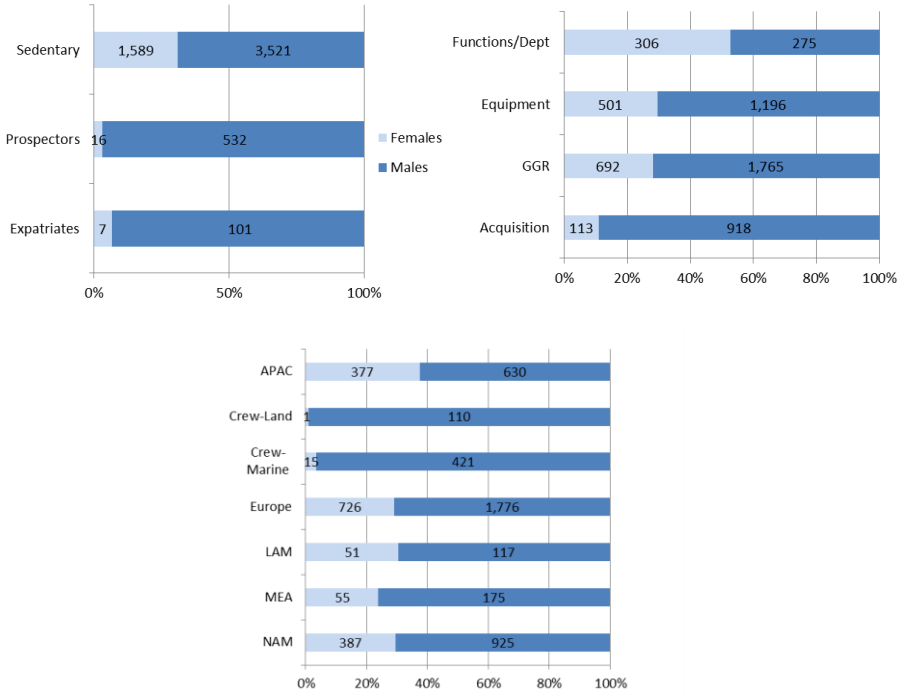
Equality between men and women

The percentage of women in the Group is increasing, at 28% compared with 26.9% in 2015.

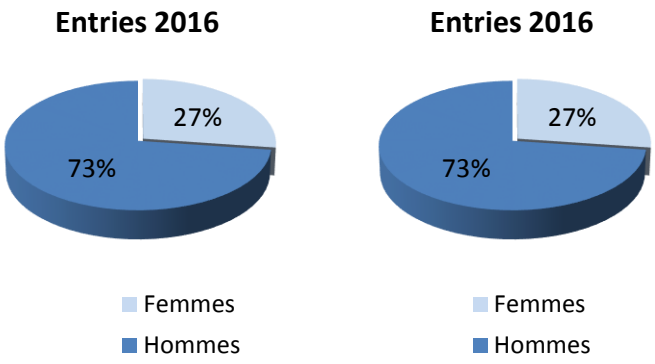
CGG occupies the 20th place in the ranking of the feminisation of the governing bodies of the SBF 120, published by the Ministry of Women's Rights (15th in 2015).

Out of the Group's 5,766 permanent employees the gender distribution is as follows:

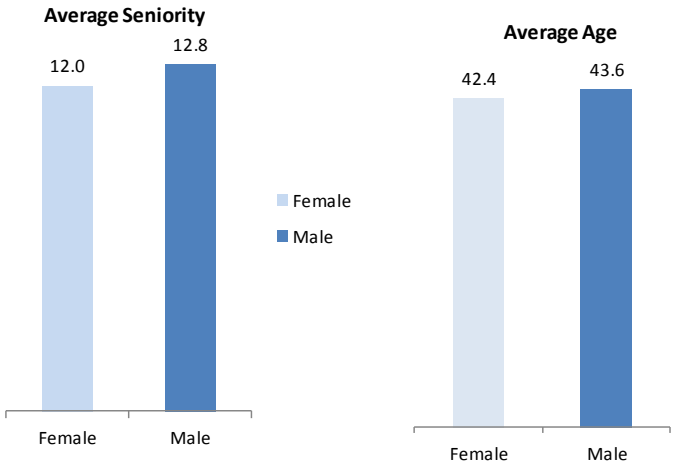
Gender distribution by contract type, segment and assignment location



Gender distribution of entries/leavers



Gender distribution average age and average seniority

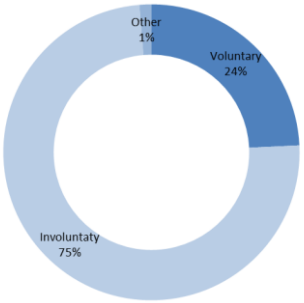


Entries and exits

In 2016, 114 entries and 1,468 exits were recorded for the Group's permanent employees.

Entries include 103 employments and 11 re-employments.

Exits include both voluntary departures (retirement, resignations, etc.) and involuntary departures (redundancies). Departures break down as follows:



Over the whole of 2016 a balance of 157 people was deducted from the workforce due to the suspension of their contract or working for a joint venture.

Against the backdrop of our transformation, we are increasing our focus on internal mobility, placing our reliance on the Country, Hub and Business Line HR teams to support our employees in these changes. We are maintaining strict control over new positions in our support functions. All positions are primarily filled in-house before we resort to external recruitment. The posting of our job offers in the career section of our Intranet site makes it easier to communicate our career opportunities rapidly and in every country.

We have also introduced for our staff an Intranet site that brings together all the information and contacts that could be useful in the various HR areas. This central HR portal is a tool that gives our employees unique access to finding the information of interest to them day to day, either at group level or locally.

HR teams also have a common Intranet allowing them secure access to all the information, tools and files useful in the practice of their profession. This allows the same practices and a common standard to be shared within the Group.

8.3.3.2 Work environment

Employees are subject to compliance with the working times stipulated in the social regimes of their countries of assignment.

"Prospector" contracts are contracts that provide for rotational work arrangements, such as five weeks of work for five weeks of rest in Marine acquisition. Land acquisition rotations are more flexible according to the nature and duration of projects.

In France, Group working conditions are governed by a specific company labour agreement whose terms have been adopted in consultation with social partners. This agreement is common to the parent company, CGG SA, and CGG Services SAS as part of the economic and social unit (ESU) implemented. It does not include Sercel SAS which is subject to the collective bargaining agreements for the metallurgy industry.

Four types of working rhythm are provided for in this collective bargaining agreement:
- two regimes are for people working in offices or workshops (time-sheets and time-by-day);
- one is for annualised prospectors (set number of days of work per year) who work in rotation;
- one is for non-annualised prospectors who acquire rest days based on the number of days worked in the field.

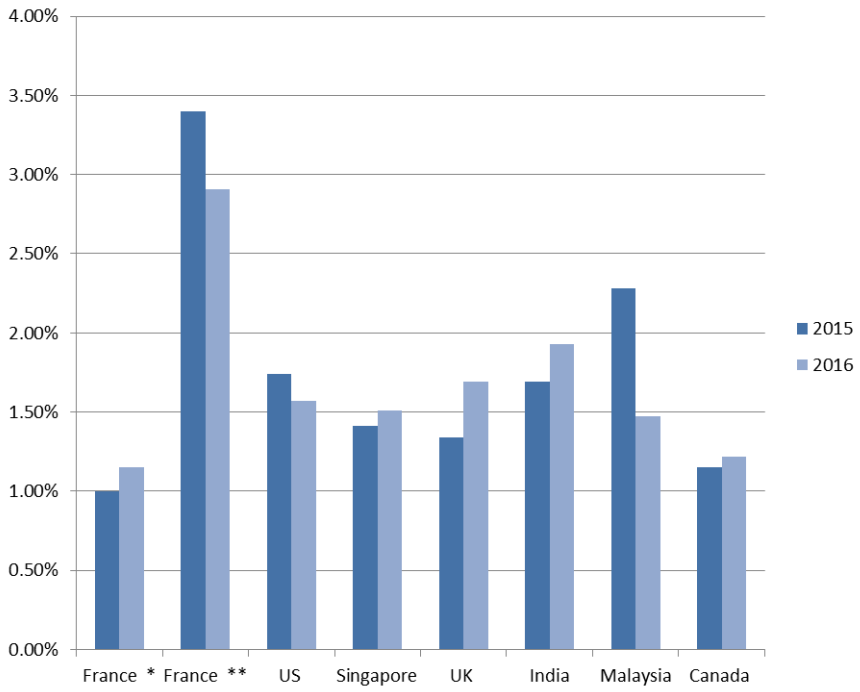
Employee working rhythm is governed by an agreement on the reduction of working hours signed on August 27, 1999 and implemented, following the principle of annualization, by the implementing agreement of February 17, 2000.

A working time account was implemented in parallel with the implementation of the 35 hour working week. Similar schemes regarding work time planning have been implemented on Sercel SAS' French sites.

Absenteeism

The Group's Absence Management tool generates statistics for key countries within the limits of local laws and data reliability which is constantly improving. It is important to note that these figures are difficult to compare as the notions of work and absence are diverse and long-term absences are not taken into account in the same way by the various local laws.

Homogenised absenteeism rates (excluding Equipment, and parental leave) are detailed below.



*: excluding long-term absences (> 100 days)

**: including long-term absences

8.3.3.3 Professional training, HR development and remuneration

CGG continues to implement a strategy which aims to help develop its employees and its organisation. The knowledge and skills and competencies required for each job are regularly identified and assessed. Employee development through training, mentoring, and coaching and the broadening of assignments and experiences foster employee mobility and challenges. A range of training courses tailored to our present and future needs make CGG University a privileged partner.

Training

In 2016, CGG University continued to enrich its catalogue of courses in reservoirs and geosciences. Moreover, for the effective dissemination of knowledge, 29 conferences on topics relating to geosciences, NICT and management with a total of 955 participants were organised worldwide. CGG University has developed partnerships with professional associations and their experts.

CGG University also offers management training programmes. In 2016, these programmes continued to develop by building skills in line with CGG's leadership model. The offerings of personal development programmes in negotiations, marketing, project management, and QHSE (quality, health, safety, and environment) policies were updated or expanded.

CGG University provided 8,589 days of training in 2016 of which 1,633 were for external customers and 6,956 for CGG Group employees. The 1,633 days of training provided to external customers concerned techniques for data acquisition and processing and reservoir geology.

The 6,956 days of training provided to our employees break down as follows:

467 introductory days on the basics of our businesses and Geosciences, 2,275 in depth technical training days, 512 training days focused on health, safety, and the environment, and 3,702 days devoted to management, leadership, and personal development programmes

Finally, training activities relating to the promotion of ethics, the understanding of the business code of conduct, and the fight against discrimination and harassment continued to be deployed (e-learning). The attendance rate for this training was 95% of the company's total population on December 31, 2016.

In addition to the Group's corporate university, training programmes are also offered by third parties (external training organisations). External training provided by specialised professional bodies or equipment suppliers concern the acquisition of specific technical skills or generic business skills and can lead to a qualification. Health, Safety, and Environment (HSE) training, such as offshore safety induction, first aid, and fire-fighting, is mandatory for our prospectors and staff visiting our seismic acquisition vessels. Finally, a third type of training is provided in situ by operations staff themselves which include, among others, the continuous training of geophysicists or HSE and professional training for employees assigned to offshore, onshore or airborne surveying missions.

To better direct training and improve the return on investment, CGG developed and has deployed the "Course Tracker" (CT) tool since 2013. In 2015, the use of CT by the university reached 100% (Group excluding Equipment Segment), Business Lines (Subsurface Imaging, GeoConsulting) continued to deploy the tool in 2016, although this deployment has been slowed (deployment in France requiring software modifications was postponed); Course Tracker recorded 22,549 training days in 2014, 18,423 in 2015 and 11,776 in 2016.

Training data for 2016 is as follows:

Course Tracker tool……	11,776 days (including 6,956 CGGU)
OLM tool (for Marine Prospector training)……..	736 days
Group e-learning tool…….	95% of employees
Equipment segment France…….	1370 days

HR Development

The Group continued to use its Human Resources development tools in 2016 to encourage discussion on personal and career development for employees. The main aspects and tools are: annual performance interview, personal development plan, annual review, and succession plan.

The annual review process for employees helps maintain a succession plan for key positions in the Group and identify promising talent.

Following this identification, personal development plans are formalised for this category of employees to help them acquire or develop skills.
International mobility is an integral part of the Group's business. In 2016, in parallel with the Group's restructuring efforts, we have continued to encourage mobility in particular through the recognition and development of local talent.

Compensation

In 2016, a performance-related bonus was paid to all employees for 2015. This variable portion of remuneration is implemented uniformly across the Group. It comes in two forms. One, for support and management entities (GPIP or Global Performance Incentive Plan), is equally based on collective financial performance and individual performance. The other, for production units, is based on their results compared to their own comparative production targets.

8.3.3.4 Restructuring

The implementation of the restructuring plan has led to the reduction of 1,511 jobs worldwide.

- In Marine Acquisition, reduction of fleet to 5 ships in early 2016, loss of 48% of jobs world-wide with a reduction in the overall cost structure, especially operational fixed costs. Administrative attachment of all Marine Acquisition field staff to the entity CGG International (Swiss contract).
- In Land Acquisition, further adaptation of our structures to the market and support of Argas. The General Geophysics department has been resized. In total 22% of jobs were cut worldwide.
- GGR has also had to adapt to lower business volume. Unprofitable reservoir imaging centres and GeoSoftware, and GeoConsulting sites were closed. The workforce on GGR Business Lines has been reduced by approximately 19%.
- 14% of jobs were lost at Sercel worldwide.
- The sharp drop in activity of the Business Lines has impacted on all support functions which have had to adjust to the new size of the Group and 12% of jobs were lost worldwide.

A thorough impact study of the reorganisation of the companies CGG SA and CGG Services SAS on health, safety and work conditions was conducted. Specific preventive measures were put in place for each department.

8.4. HSE & SOCIAL RESPONSIBILITY INDICATORS

In addition to the indicators mentioned below, concrete examples of application of our HSE & Social Responsibility strategy are available on our website: www.cgg.com/fr > Sustainable Development > HSE & SD Case Studies.

Employees

	2012	2013	2014	2015	2016	2016 External verification
Number of nationalities	104	108	102	94	87	✓
Permanent employees (Total) *of which female (%)*	7,560 *26%*	9,688 26%	8,540 26.9%	7,277 26.9%	5,766 *28%*	✓ ✓
Europe *of which female (%)*	2,581 28%	3,601 *29.3%*	3,458 *28.9%*	3,138 *28.8%*	2,502 *29%*	✓
Africa & Middle East *of which female (%)*	331 *20%*	408 *19.9%*	338 *20.7%*	277 *23.8%*	230 *23.9%*	✓
Asia Pacific *of which female (%)*	1,108 *38%*	1,370 *36.1%*	1,258 *36.6%*	1,178 *37.0%*	1,007 *37.4%*	✓
North America *of which female (%)*	1,782 *33%*	2,294 *31.3%*	1,925 *31.7%*	1,496 *30.1%*	1,312 *29.5%*	✓
Latin America *of which female (%)*	258 *31%*	398 *29.6%*	336 *26.8%*	196 *28.6%*	168 *30.4%*	✓
Marine Acquisition teams *of which female (%)*	970 *7%*	1,242 *6%*	1,046 *6.1%*	841 *5%*	436 *3.4%*	✓
Land Acquisition teams *of which female (%)*	530 *2%*	375 *0.8%*	179 *1.1%*	151 *0.7%*	111 *0.9%*	✓
Hiring *of which female (%)*	1,238 *28%*	3,411 *26.9%*	587 *31.2%*	240 *36.7%*	114 *27.2%*	✓
Total employee turnover rate *Including voluntary employee turnover*	10% n.c.	12.4% n.c.	17.83% *6.5%*	17.22% *4.88%*	20.17% 4.89%	✓
Employees covered by a collective bargaining agreement (France, Norway, Singapore)	2,067	2,242	2,120	1,901	1,626	✓
Training provided by CGG University (hours)	139,160	115,255	120,656	87,744	68,712	✓

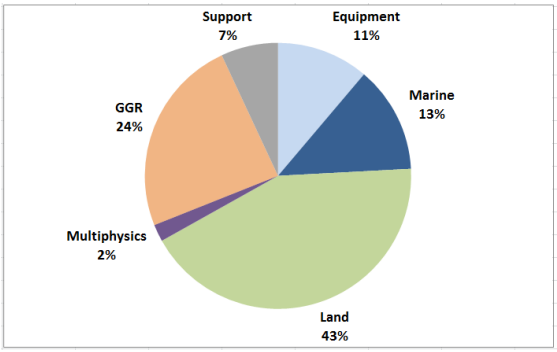
Ethics [1]

	2016
Cases referred to the Ethics Committee (#)	**10**
Human resources cases (#)	*1*
Harassment cases (#)	*2*
Compliance cases (#)	*3*
Conflict of interest cases (#)	*1*
Discrimination cases (#)	*3*
Other cases of human rights violations (#)	*0*

(1) This data are not audited by the independent third party.

Health & Safety

	2012	2013	2014	2015	2016	2016 External audits
Hours (million)	72.1	68.4	54.8	52.1	24.3	✓



Fatality	2	0	1	1	0	✓
Fatality rate	2.8	0	1.8	1.9	0	✓
Partial or permanent disability	0	1	0	1	0	✓
Lost time injury frequency rate	0.46	0.60	0.42	0.29	0.25	✓
Total Recorded Cases Frequency	2.76	2.16	1.79	1.38	1.40	✓
Severity rate	0.011	0.013	0.01	0.01	0.004	✓
Recordable occupational diseases with days lost frequency rate *	0.13	0.20	0.12	0.08	0.09	✓
Recordable occupational diseases frequency rate *	1.00	0.71	0.35	0.33	0.14	✓
Recordable occupational diseases severity rate *	0.005	0.002	0.001	0.003	0.001	✓

	2012	2013	2014	2015	2016	2016 External audits
Driven Kilometers (million)*	33,500,000	**28,300,000**	26,000,000	22,500,000	18,900,000	✓
Motor vehicle crash rate*	0.45	**0.88**	0.60	0.44	0.74	✓
HSE Field Training (hours)	120,073	**142,666**	141,617	109,593	71,688	✓
Inspections	—	**101,901**	112,723	95,037	124,137	✓
HSE-OMS (health, safety, security, environment, social responsibility) audits	—	**74**	47	40	28	✓
"Rules to Live By" Violations Frequency	1.9	**2.3**	2.8	2.0	5.2	✓

Note on Health & Safety:

- *In 2016, CGG changed the convention for calculating hours, aiming for greater consistency among our different Business Lines but also with our industry associations (IOGP and IAGC). Following the consolidation, the hours worked and not the hours exposed are taken into account (as at offshore sites and camps). The total of hours for 2016 is thus lower than it would have been under 2015 convention. For information, with former computing method, the lost time injury frequency would have been 0.16, the total recordable cases 0.9 and the severity rate 0.003.*
- Frequency rates are calculated on the basis of one million hours worked. The Fatality Rate (FAR) is calculated on 100 million hours worked. The severity rate is calculated on the basis of 1,000 hours worked.
- Indicators marked with * do not take into account the Equipment Business Line (2.7 million hours worked in 2015)

- The significant change of the "Rules To Live By" violation frequency rate between 2015 and 2016 is related to a change in reporting scope, as of now extended to the Equipment business line.

Environment

	2012	2013	2014	2015	2016	2016 External audits
Territorial footprint of acquisition activities (Total covered surface in sq. km)				707,814	**391,310**	✓
Multiphysics coverage (sq. km)				552,000	**273,658**	✓
Marine coverage (sq. km)				135,243	**98,304**	✓
Land coverage (sq. km)				20,571	**19,348**	✓
Significant environmental incidents (#)	2	1	0	1	**0**	✓
Significant hydrocarbon spills (# of spills > 0.2 m^3)	1	1	0	2	**0**	✓
Residual hydrocarbon spillage after clean-up (m^3)	0.2	0.2	0	0.4	**0**	✓
Energy consumption (Total in GWh)				2,552	**1,503**	✓
Fuel oil (GWh)				2,360	**1,362**	✓
Natural gas (GWh)	-	-	-	41	**21**	✓
Electricity (GWh)				151	**120**	✓

The fuel consumed by the seismic fleet still represents 71% of the Group's energy consumption. Marine diesel fuel, emitting less sulphur oxides and particulate matters than heavy fuel oil, accounts for 82% of the marine fuel consumed. The optimisation of the vessels' fuel efficiency remains an essential factor in the relationship between CGG and its maritime partners, who formalise areas for improvement in their *Ship Energy Efficiency Management Plans*.

Energy efficiency - Marine Acquisition Marine Fuel Efficiency Index (CMP-kms/m^3 of fuel)	44	51	54	55	**43**	✓

After years of steady improvement in the energy efficiency of marine fuel, 2016 marked a sharp deterioration. This is among other things due to the reduction of customer demand for Wide Azimuth-type studies which consume much less fuel per data point logged.

Energy efficiency - GGR *Power Usage Effectiveness* (PUE)[1]	1.44	1.41	1.40	1.36	**1.31**	✓

Subsurface Imaging needs a high computing capacity. The energy efficiency of our data centers continues to improve, thanks among others to innovative cooling technologies implemented in the UK and the US.

Total direct and indirect greenhouse gas emissions (Scope 1 & 2; kt CO_2 eq.)[2]	890	995	747	649	**446**	✓
Direct emissions (Scope 1)	815	920	700	558	**374**	✓
Indirect emissions (Scope 2)	75	75	47	91	**71**	✓
Greenhouse gas emissions' intensity (Scope 1 & 2; kt CO_2 eq.per employee)	118	103	88	89	**77**	✓
Sulphur oxydes' emissions of marine seismic fleet (kt SO_X)					**0,17**	✓
Nitrogen oxydes' emissions of marine seismic fleet (kt NO_X)					**11**	✓

CGG halved its greenhouse gas emissions in five years. This mainly results from the transformation of the company's business profile towards more geosciences (GGR), an activity emitting much less greenhouse gases than seismic data acquisition.

Significant fines for non-compliance in environmental matters (#)	0	0	0	0	**0**	✓
Grievances about environmental impacts filed, addressed, & resolved through formal mechanisms (#)	0	0	0	0	**0**	✓
Marine Mammal Observations (Total in #)	**2,232**	**2,069**	**4,189**	**3,562**	**1,808**	✓
Visual observations (#)	2,158	1,417	2,381	1,995	**918**	✓
Acoustic detections (#)	74	652	1,807	1,567	**890**	✓
Operational downtime linked to Marine Life Mitigations (hours)	92	133	254	204	**231**	✓

(1) The PUE relating the total energy of the data centre (infrastructure) to that of computer equipment is calculated as recommended by Energy Star, Recommendations For Measuring and Reporting Overall Data Centre Efficiency Version 2 - Measuring PUE for Data Centres, May 2011. The data in the table takes into account the three main CGG data centres.

(2) Conversions of energy data into emissions were made using the methodology of the Greenhouse Gas Protocol developed by the World Resources Institute (WRI), 2016 edition.

Responsibility

	2012	2013	2014	2015	2016	2016 External audits
Management of Local Communities / Local Content						
Employees						
Employees working in a country from which they are nationals[3]	Not assessed	Not assessed	Not assessed	**78%**	**79%**	✓
Managers working in a country from which they are nationals [4]	Not assessed	Not assessed	Not assessed	**70%**	**72%**	✓
Days worked by the staff who are nationals of the country of the acquisition project[5]	Not assessed	Not assessed	Not assessed	**733,500[6]**	**517,500**	✓
Partnerships with Universities and donations for educational purposes of CGG GeoSoftware						
Number of partner Universities in the CGG GeoSoftware donation program *of which Universities located in countries considered to be developing (non-OECD countries)*	Not assessed	Not assessed	**50** *30*	**116** *37*	**129** *37*	✓
Estimated commercial value of licence donations and renewal (US$ millions)	Not assessed	Not assessed	**133**	**450**	**311**	✓
Local procurement for land surveys						
During land surveys, CGG is particularly committed to making a contribution to the development of the survey region, by sourcing from local suppliers.						
Procurement from domestic suppliers, surveys under operational control of CGG[7] non-OECD countries (US$ k)	Not assessed	**82,000**	**35,000**	**15,200[8]**	**15,600**	✓

[3] Scope: CGG Group except offshore and onshore field staff.
[4] Sites: sites counting more 50 employees. Manager: employee with at least one subordinate. Scope 2015: CGG Group except Equipment Business Line. Scope 2016: CGG Group.
[5] Scope: Land Product Line, operations in non-OECD countries directly or through participation in the ARGAS joint venture.
[6] In 2016, CGG changed the convention for calculating hours: only worked hours are now taken into account (and not exposure hours). This led to a retroactive modification of the 2015 statistic.
[7] Since CGG became a minority partner in the ARGAS joint venture the course of 2014, procurement for the latter no longer fall within the Group consolidated scope.
[8] 2015 data retroactively aligned on 2016 perimeter.

Responsible Procurement Group procurement of goods and services (billion US$) *Share realized with suppliers based in countries with a corruption perception index ≥ 60, considered by Transparency International as low corruption risk*	Not assessed	**1.68** *57%*[9]	**1.88** *79%*	**1.34** *78%*	**1.09** *85%*	✓

Sponsorship of Sustainable Development initiatives

CGG supports community initiatives building capacity in education and training (including earth sciences), community service, environmental protection and health and safety. Despite the reduced budgets allocated to these initiatives in line with the difficult economic conditions faced by the Group, the number of initiatives organized worldwide remains stable, with a surge of employee volunteering only initiatives.

Total initiatives spend (kUSD)	757	**760**	**961**	**405**	**145**	✓
Initiatives (#)	Not assessed	Not assessed	**101**	**58**	**59**	✓
Initiatives with direct employee engagement (% of total spend)	50	**76 %**	**78 %**	**80 %**	**100 %**	✓
Initiatives supported for at least 2 years (% of total spend)	Not assessed	**69 %**	**79 %**	**83 %**	**89 %**	✓

ESG Indices (Environment, Social and Governance)

CGG anti-corruption, health, safety, security, environment and social responsibility best practices allow the Group to be listed in several ESG Indices. These indices select and rate companies according to specific methodologies, giving an idea of their sustainable development performance.

ESG Indices listing CGG at December 31, 2016

Dow Jones Sustainability Indices In Collaboration with RobecoSAM — Dow Jones Sustainability World

Ethibel PIONEER and Ethibel EXCELLENCE Investment Registers

8.5. REPORTING SCOPE AND METHOD

8.5.1. Selection and pertinence of indicators

Published data is intended to inform stakeholders of CGG's HSE & social responsibility results for the current year. It is in line with IOGP, EPCM, and *Global Reporting Initiative* (GRI) recommendations on information transparency.

Indicators were selected to monitor:

- CGG's HSE and social responsibility commitments and policies integrated in management systems,
- Performance relating to CGG's main risks and impacts,
- Regulatory obligations (French Commercial Code, updated in 2012 by the decree implementing Article 225 of the Grenelle II law in 2016 and by Article 173 of the law on energy transition and green growth).

The themes mentioned in the decree are handled as transparently as possible. Some are not reported on in great detail as they are not considered material at Group level for the following reasons:

Environment

Consumption of raw materials and measures to improve efficiency in their use: Only the Equipment Business Line within the Group consumes raw materials. The systematic approach to ecodesign of this Business Line particularly aims to minimise such use. Benefits in terms of weight, material and energy consumption reduction are highlighted on the product datasheets of new generations of products. In addition, the Equipment Business Line is investigating whether the minerals used in its manufacturing facilities stem from the Democratic Republic of Congo and/or adjacent countries (report available on http://www.cgg.com/en/Investors/Financial-Information/Quarterly-and-Annual-Reports).

Water use and supply according to local constraints: CGG consumes little water (estimated volume of 328,000 m^3 in 2016). Seismic surveys taking place in a desert environment or suffering from water stress are also low consumers of water (estimated average of 158 litres per employee per day). Preventing potential impact on the local community's water supply is taken into consideration in project risk assessment plans.

[9] *These 57% are to be understood as a minimum, because the procurement stemming from the Fugro Geoscience Division that joined CGG in 2013 could not be consolidated in the 2013 Group procurement spend.*

Prevention, recycling, and waste disposal measures: CGG is a low producer of waste among oil & gas service providers. About 4,800 tons of waste were generated in 2016, of which 80% were non-hazardous. About half of the waste is recycled or recovered as energy. Permanent sites as well as seismic acquisition projects have determined waste management plans that all include the same principles: avoid, reduce, reuse, and treat/recycle. However, seismic acquisition activities take place in regions underdeveloped with waste treatment infrastructure.

Adaptation to climate change: The physical risks related to climate change should not impact the Group's activities in the short term. Financial risks related to the energy transition are being assessed and further described in the section "Risks factors" of our annual report on Form 20F.

Measures to enhance biodiversity: The Group is particularly committed to minimizing the environmental footprint of its activities so as to not impact habitats and their related biodiversity.

Use of land: Most of CGG permanent sites are located in highly urban areas and have not caused any cropland loss. Land seismic acquisition projects that require to access crops or cultivable land are tightly managed by a permitting team in order to prevent or reduce potential damage. Compensation systems are agreed upon whenever necessary.

Amount of provisions and guarantees for environmental risks: CGG has not established any provisions for environmental risk. The amount of guarantees is confidential;

Use of renewable energy: 91% of CGG's energy consumption serves seismic acquisition's maritime and road transport activities. These activities occur mostly round the clock and do not lend themselves to the use of renewable energy. CGG permanent office locations consider the use of renewable energy where available on a case by case basis. For example, British CGG sites are supplied with electricity produced from a mix of wind, wave, solar, biomass, and hydro power. The main French site's heating stems from the energy recovered from domestic and wood waste.

Significant sources of greenhouse gas emissions generated due to the activity of the company, including the use of goods and services it produces: CGG services are rarely the only information source sustaining a client's decision to undertake exploration or production. Even when the use of CGG services alone might have justified a client's decision to exploit or conversely not to exploit a resource, the consequences in terms of greenhouse gas emissions would only be significant years after the provision of services. Estimating of such Scope 3 greenhouse gas emissions is therefore risky.

Waste food reduction: Awareness campaigns are conducted by our service providers to reduce food waste. This waste was measured several times on a sample of permanent sites and seismic surveys in 2016. With respectively 60 grams and 100 grams of food per meal lost, CGG is well below the national average for catering (160 to 180 grams depending on estimates).

Social Responsibility

Supply chain and suppliers: Although the volume of purchases by the Group is very large, exposure to environmental and social responsibility risks in its supply chain is very limited. The Group purchased 85 % of its products and services from suppliers in countries considered to have a low risk of corruption by Transparency International (corruption perceptions index equal to or higher than 60). Most of these countries are members of the OECD. Most have enacted environmental legislation and are committed to the principles of the International Labour Organization (ILO).

A performance evaluation program is also in place for suppliers considered critical to Marine seismic operations. The assessment covers five areas, of which the first relates to HSE.

Measures for consumer health and safety: CGG mainly provides services to its clients and is not in contact with consumers. The Equipment Business Line trains its clients to use its products and provides all information about the materials used. The Group has not been informed of any adverse effects to date.

8.5.2. Method

CGG's HSE & social responsibility reporting procedures are based on the Group's *Event Reporting, Recording and Classification Guidelines*.

8.5.3. Scope

HSE & Social Responsibility reporting concerns all employees and contractors working under CGG's prevailing influence, namely all of our sites and acquisition activities that are at least 50% owned by CGG and consolidated in the Group's financial statements.

As an exception to this rule, HSE reporting also covers the operations of:

- ARGAS, a CGG minority Joint Venture in the Middle East;
- *Amadeus and Binh Minh*, vessels operated by CGG through the minority joint venture PTSC CGGV Geophysical Survey Company Limited in Vietnam.

Unless otherwise specified, all statistics provided in this report include this scope which accounted for more than 24 million hours worked in 2016.

Every Business Line site, team, or ship records its HSE activities and incidents in PRISM which is CGG's integrated tool for HSE and social responsibility reporting and risk assessment. The Equipment Business Line maintains its own reporting system.

Data associated with acquisitions is recorded as soon as possible and no later than January 1 of the following year; sales activities are recorded in the month following their actual output.

Human Resources (HR) indicators used cover the consolidated scope of the Group. The figures for HR have mainly been extracted from the Group's HR information system which is the HRMS (Human Resources Management System) database. This database is deployed in all Group entities, with the exception of the Equipment Business Line. Equipment data is therefore currently consolidated manually.

The statistical data for the Group's workforce presented in paragraph 8.3 “Employees” of this report comply with the following rules (unless otherwise noted):

- CGG employees only (contractors and employees working for a minority joint venture are excluded);
- No employees on long-term absence (suspension of contract, long-term illness);
- Employees leaving the Group on the last day of a given month are included in the report for that month.

The employees of equity-accounted companies are not included in the calculations. In the case of acquisition or disposal, the scope is adjusted to the effective time of the transaction and variances are explained.

8.5.4. Consolidation and internal control

HSE data is reviewed on a weekly basis by HSE support functions. The data is then consolidated every month at Business Line and Group level. Data pertaining to certain specific indicators are calculated directly by the businesses. These processes undergo regular internal audits

HR consolidation and adjustment rules are defined by a protocol followed for each report (see point 1) to ensure the comparability and traceability of the information provided. Data in this report may differ from the data reported for national scopes for the same domain, depending on national regulatory methodologies.

However, the information managed in this Group database does not contain all the data recorded and stored in local databases mainly relating to payroll. Note that these databases are outsourced in major countries, except for the US and Canada. The Group database is not intended to replace the various national administrative data processing systems (typically payroll systems) which are compliant with the laws of the country concerned.

The structure of personal data collection and storage varies from one country to another depending on national regulations. Some of the information collected which is subject to monitoring in France is illegal in other countries and vice versa, which is why some information cannot be consolidated at world level.

The data is recorded in HR information systems by local HR administration entities or through a service specially structured for this purpose (e.g. the Employee Service Centre for North America). This data is verified at two levels:

- a SOX level of compliance in the form of annual audits and implementation of continuous control points for personal data: gender, dates of birth, seniority, wages, promotions, tax situations, contract type, etc.;
- an organisational compliance level concerning reporting lines, membership to trade families, Segment, Function, Business Line (Business Line), etc., through audits conducted on operational and functional HR for monthly and quarterly reports.

Finally, some global processes implemented through tools directly connected to the HRMS database such as the annual performance evaluation, annual salary review, calculation of annual bonuses, which also allows ad hoc (at least once a year) cross-referencing of information and its analysis and validation.

The data reported is based on the 2016 calendar year. Information regarding certain themes, including training hours and absenteeism data, is not based on the entire scope. The tools to consolidate these figures are currently being deployed or improved. However, we believe that the main scope (countries or activities) are covered.

8.5.5. Definitions

The following paragraph provides definitions of the various terms used in paragraph 8.3 “Employees” of this report.

- The Group: CGG Group, including all activities in the various countries where the Group operates.
- Office-based staff: office or workshop staff working on a weekly basis.
- Field staff: staff working in rotation over several weeks on onshore or offshore seismic activity projects.

9. INDEPENDENT VERIFIER'S REPORT ON CONSOLIDATED SOCIAL, ENVIRONMENTAL AND SOCIETAL INFORMATION[10]

CGG
Year ended the 31st December 2016

Independent verifier's report on consolidated social, environmental and societal information presented in the management report

This is a free translation into English of the original report issued in the French language and it is provided solely for the convenience of English speaking users. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

To the shareholders,

In our quality as an independent verifier accredited by the COFRAC[11], under the number n° 3-1050, and as a member of the network of one of the statutory auditors of the company CGG, we present our report on the consolidated social, environmental and societal information established for the year ended on the 31 December 2016, presented in chapter 2 of the French management report, hereafter referred to as the "CSR Information," pursuant to the provisions of the article L.225-102-1 of the French Commercial code (*Code de commerce*).

Responsibility of the company

It is the responsibility of the Board of Directors to establish a management report including CSR Information referred to in the article R. 225-105-1 of the French Commercial code (*Code de commerce*), in accordance with the protocols used by the company (hereafter referred to as the "Criteria"), and of which a summary is included in section « 2.5 Methodological note » of chapter 2 of the French *Document de Référence* including the management report, and available on request at the company's headquarters.

Independence and quality control

Our independence is defined by regulatory requirements, the Code of Ethics of our profession as well as the provisions in the article L. 822-11 of the French Commercial Code (*code de commerce*). In addition, we have implemented a quality control system, including documented policies and procedures to ensure compliance with ethical standards, professional standards and applicable laws and regulations.

Responsibility of the independent verifier

It is our role, based on our work:

- to attest whether the required CSR Information is present in the management report or, in the case of its omission, that an appropriate explanation has been provided, in accordance with the third paragraph of R. 225-105 of the French Commercial Code (*Code de commerce*) (Attestation of presence of CSR Information);
- to express a limited assurance conclusion, that the CSR Information, overall, is fairly presented, in all material aspects, in according with the Criteria.

Our verification work was undertaken by a team of four people between July 2016 and the date of signature of our report for an estimated duration of 16 weeks.

We conducted the work described below in accordance with the professional standards applicable in France and the Order of 13 May 2013 determining the conditions under which an independent third-party verifier conducts its mission, and in relation to the opinion of fairness and the reasonable assurance report, in accordance with the international standard ISAE 3000[12].

1. Attestation of presence of CSR Information

Nature and scope of the work

We obtained an understanding of the company's CSR issues, based on interviews with the management of relevant departments, a presentation of the company's strategy on sustainable development based on the social and environmental consequences linked to the activities of the company and its societal commitments, as well as, where appropriate, resulting actions or programmes.

We have compared the information presented in the management report with the list as provided for in the Article R. 225-105-1 of the French Commercial Code *(Code de commerce)*.

In the absence of certain consolidated information, we have verified that the explanations were provided in accordance with the provisions in Article R. 225-105-1, paragraph 3, of the French Commercial Code *(Code de commerce)*.

We verified that the information covers the consolidated perimeter, namely the entity and its subsidiaries, as aligned with the meaning of the Article L.233-1 and the entities which it controls, as aligned with the meaning of the Article L.233-3 of the French Commercial Code *(Code de commerce)* with the limitations specified in the Methodological Note (section 2.5) in chapter 2 of the French *Document de Référence*.

Conclusion

Based on this work, we confirm the presence in the management report of the required CSR information.

[10] *This translation of the independent verifier's report on consolidated social, environmental and societal information which is included in the French Document de Référence on fiscal year 2015 is included here for information purpose.*
[11] *Scope available at www.cofrac.fr*
[12] *ISAE 3000 – Assurance engagements other than audits or reviews of historical information*

2. Limited assurance on CSR Information

Nature and scope of the work

We undertook four interviews with the people responsible for the preparation of the CSR Information in the different departments of Sustainable Development, Human Resources and HSE, in charge of the data collection process and, if applicable, the people responsible for internal control processes and risk management, in order to:

- Assess the suitability of the Criteria for reporting, in relation to their relevance, completeness, reliability, neutrality, and understandability, taking into consideration, if relevant, industry standards;
- Verify the implementation of the process for the collection, compilation, processing and control for completeness and consistency of the CSR Information and identify the procedures for internal control and risk management related to the preparation of the CSR Information.

We determined the nature and extent of our tests and inspections based on the nature and importance of the CSR Information, in relation to the characteristics of the Company, its social and environmental issues, its strategy in relation to sustainable development and industry best practices.

For the CSR Information which we considered the most important[13]:

- At the level of the consolidated entity, we consulted documentary sources and conducted interviews to corroborate the qualitative information (organisation, policies, actions, etc.), we implemented analytical procedures on the quantitative information and verified, on a test basis, the calculations and the compilation of the information, and also verified their coherence and consistency with the other information presented in the management report;
- At the level of the representative selection of sites that we selected14, based on their activity, their contribution to the consolidated indicators, their location and a risk analysis, we undertook interviews to verify the correct application of the procedures and undertook detailed tests on the basis of samples, consisting in verifying the calculations made and linking them with supporting documentation. The sample selected therefore represented for example 39% of total headcount, 67% of Lost Time Incidents, 3% of energy consumption of the Group, which were considered representative of social and environmental topics.

For the other consolidated CSR information, we assessed their consistency in relation to our knowledge of the company.

Finally, we assessed the relevance of the explanations provided, if appropriate, in the partial or total absence of certain information.

We consider that the sample methods and sizes of the samples that we considered by exercising our professional judgment allow us to express a limited assurance conclusion; an assurance of a higher level would have required more extensive verification work. Due to the necessary use of sampling techniques and other limitations inherent in the functioning of any information and internal control system, the risk of non-detection of a significant anomaly in the CSR Information cannot be entirely eliminated.

Conclusion

Based on our work, we have not identified any significant misstatement that causes us to believe that the CSR Information, taken together, has not been fairly presented, in compliance with the Criteria.

Paris-La Défense, the 28th April 2017

French original signed by:

Independent Verifier
ERNST & YOUNG et Associés

Christophe Schmeitzky
Partner, Sustainable Development

Bruno Perrin
Partner

[13] ***Environmental, social and societal information***:
- *Indicators (quantitative information) : information and indicators marked with a « tick » in the text of Chapter 2 « Environment, Sustainable Development and Employees », including: number of permanent employees, number of entries and exits in the company, Lost Time Injury Frequency Rate (LTIF) and Total Recordable Cases Frequency (TRCF), number of training days provided by CGG University, minimization of the footprint of the Group's products and services, number of accidental spills of moderate or higher level at sea or on land, Power Usage Effectiveness (PUE), amount of linear seismic data acquired per cubic metre of fuel consumed, marine fauna monitoring & mitigation measures (number of sightings, number of acoustic detections, number of hours of downtime, number of marine fauna shutdowns, number of delayed soft-starts), percentage of national staff by country of permanent implantation, the share of purchases from suppliers in countries with low risk of corruption.*
- *Quantitative information: employment (permanent employees and distribution, hires and layoffs, compensation and its evolution), work time organization, absenteeism, institutional labor relations (organization of social dialogue, overview of collective agreements), relationships with stakeholders, health and safety work conditions, work accidents, including their frequency and severity, occupational illnesses, training policy, diversity and equal opportunity policy (agreement on gender equality, measures to promote the employment and integration of disabled employees, rejection of all forms of discrimination), promotion and respect of the ILO core conventions (freedom of association, elimination of discrimination, of child and forced labor).*

[14] *The site of Massy Galileo (France), the subsidiary Sercel (France)*

10. STOCK OPTIONS AND PERFORMANCE SHARES

In accordance with sections L. 225-184 and L. 225-197-4 of the French Commercial Code, the stock options and performance shares plans currently in force in the Company are described in separate special reports of the Board of Directors.

10.1. STOCK-OPTIONS PLANS

The table below summarizes the evolution, during fiscal year 2016, of the stock-options plans put in place by virtue of the authorizations granted by the General Meetings of April 29, 2008, May 4, 2011, May 3, 2013, and May 29, 2015 respectively.

As of December 31, 2016:

	2009 Plan	2010 Plans			2011 plan	2012 plan	2013 plan	2014 plan	2015 plan	2016B plan	Total
Date of the Board of Directors' meeting	03/16/2009	40,330	03/22/2010	10/21/2010	03/24/2011	06/26/2012	06/24/2013	06/26/2014	06/25/2015	42,544	
Number of beneficiaries	149	1	339	3	366	413	672	752	749	683	
Total number of shares that can be subscribed [3] :	1,327,000	220,000	1,548,150	120,000	1,164,363	1,410,625	1,642,574	1,655,843	1,769,890	6,658,848	17,517,293
Out of which the number can be exercised by:											
Executive Officers :											
Remi Dorval	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Jean-Georges Malcor	—	220,000	162,500	0	133,333	200,000 (***)	200,000 (****)	200,000 (*****)	220,600	882,400	2,218,833
Stéphane-Paul Frydman (*)	40,000	—	60,000	—	45,000	100,000 (***)	100,000 (****)	100,000 (*****)	111,000	444,000	1,000,000
Pascal Rouiller (*)	40,000	—	60,000	—	45,000	100,000 (***)	100,000 (****)	100,000 (*****)	111,000	444,000	1,000,000
Sophie Zurquiyah (**)	—	—	—	—	—	—	120,000	60,000	79,500	444,000	703,500
Start date of options exercise	03/17/2010	07/01/10	03/23/2011	10/22/2011	03/25/2012	06/27/2014	06/25/2015	06/27/2016	06/26/2017	06/24/18	
Expiration date	03/16/2017	06/01/18	03/22/2018	10/21/2018	03/24/2019	06/26/2020	06/24/2021	06/26/2022	06/25/2023	06/23/24	
Subscription price (in €) [1][2] [4]	224.00	373.44	493.44	428.80	646.72	476.48	493.44	274.88	160.64	21.76	
Exercise rules (when the plan provides for several batches of options) [5]	- Options accrue rights by third every year during the first three years; - prohibition to sell or transfer his shares before March 17, 2013 for French tax residents.	- Options accrue rights by half immediately and by fourth every year during the two following years; - prohibition to sell or transfer his shares before January 7, 2014.	- Options accrue rights by third every year during the first three years; - prohibition to sell or transfer his shares before March 23, 2014 for French tax residents.	- Options accrue rights by third every year during the first three years; - prohibition to sell or transfer his shares before October 21, 2014 for French tax residents.	- Options accrue rights by third every year during the first three years; - prohibition to sell or transfer his shares before March 24, 2011 for French tax residents.	- Options accrue rights in three batches (50% after 2 years, 25% after 3 years and 25% after 4 years) - prohibition to sell or transfer his shares before June 26, 2016 for French tax residents.	- Options accrue rights in three batches (50% after 2 years, 25% after 3 years and 25% after 4 years)	- Options accrue rights in three batches (50% after 2 years, 25% after 3 years and 25% after 4 years)	- Options accrue rights in three batches (50% after 2 years, 25% after 3 years and 25% after 4 years)	- Options accrue rights in three batches (50% after 2 years, 25% after 3 years and 25% after 4 years)	
Number of shares subscribed as at December 31, 2016[3]	452,950	0	38,382	0	0	0	0	0	0		491,332
Cumulated number of stock-options which were cancelled or lapsed as at December 31, 2016[3]	96,706	0	138,719	42,097	153,397	999,525	523,800	399,853	124,891	2,271	2,481,259
Remaining stock-options as at December 31, 2016[4]	30,581	8,668	51,493	3,128	39,541	20,141	42,485	48,404	60,581	205,815	510,837
Out of which the remaining number is held by:											
Executive officers											
Remi Dorval	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Jean-Georges Malcor	—	8,668	6,402	—	5,254	0	3,276	4,680	8,255	27,575	64,110
Stéphane-Paul Frydman (*)	1,387	—	2,364	—	1,773	0	1,638	2,340	4,155	13,875	27,532
Pascal Rouiller (*)	0	—	2,364	—	1,773	0	1,638	2,340	4,155	13,875	26,145
Sophie Zurquiyah (**)	—	—	—	—	—	—	1,966	1,405	2,976	13,875	20,222

[1] Considering the adjustements done further to the capital increase of February 5, 2016 and to the stock reverse split of July 20, 2016.

[2] 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.

[3] Without taking into account the various adjustments that have occurred after the implementation of the plans.

[4] Considering the adjustments done further to the capital increase of October 23, 2012 for all plans previously granted and the adjustments done further to the capital increase of February 5, 2016 and to the stock reverse split of July 20, 2016.

[5] In addition, certain performance conditions are applicable to the senior executive officers and the members of Executive Committee or Corporate Committee (see item 4 of 20-F Form).

(*) Corporate officer of CGG SA from February 29, 2012 until January 4, 2017.

(**) Corporate officer of CGG SA from September 1, 2015 until January 4, 2017.

(***) For the senior executive officers and members of the Corporate Committee, this plan is subject to performance conditions which have not been met for each of the three batches in 2014, 2015 and 2016.

(****) For the senior executive officers and members of the Corporate Committee, this plan is subject to performance conditions which have not been met in 2015 for the first batch (corresponding to 50% of the allocation) nor for the second batch in 2016 (corresponding to 25% of the allocation).

(*****) For the senior executive officers and members of the Corporate Committee, this plan is subject to performance conditions which have not been met in 2016 for the first batch (corresponding to 50% of the allocation);

Individual information on stock-options allocated to the Executive Officers is set forth in item 4 of our 2016 report on Form 20-F.

As of the date of filing of our 2016 report on Form 20-F, the exercise price for all the plans is above CGG share market price.

10.2. PERFORMANCE SHARES PLANS

There was no performance shares allocated since 2012.

11. REPORT OF THE CHAIRMAN ON BOARD OF DIRECTORS' COMPOSITION, PREPARATION AND ORGANIZATION OF THE BOARD OF DIRECTORS' WORK, ON INTERNAL CONTROL AND RISK MANAGEMENT

In accordance with article L.225-37 of the French commercial code, the purpose of this document is to report on the composition, the conditions of preparation and organization of the meeting of the Board of Directors, on the limitations of the authority of the management as well as the internal control and risk management procedures put in place within CGG (hereinafter referred to as "the Company") and its consolidated subsidiaries (hereinafter collectively referred to as the "Group"). The Board of Directors approved this report in its meeting of March 2, 2017.

This report informs shareholders of the oversight assured by General Management and the Board of Directors of the activities of the Company. Such oversight involves assuring:

- On the one hand, that acts of management and transactions and the behavior of personnel adhere to guidelines established by corporate governance bodies, applicable laws and regulations, standards, and internal rules and procedures of the Company;
- On the other hand, that the accounting, finance and management information, provided to corporate governance bodies offers a reliable and sincere presentation of the activity and situation of the Company and the consolidated group.

One of the objectives is to anticipate and manage risks resulting from the activity of the Company and risks of errors or fraud, particularly in accounting and finance.

However, as with all control systems, there is no absolute guarantee that such risks can be entirely eliminated.

In accordance with article L. 225-37 of the French commercial code, this report is divided into three sections:

- Board of Directors' composition and preparation and organization of the Board of Directors' work (I),
- Limitations imposed on Management authority (II),
- Procedures of internal control and risk management implemented by the Company (III).

I. BOARD OF DIRECTORS' COMPOSITION AND PREPARATION AND ORGANIZATION OF THE BOARD OF DIRECTORS 'WORK

I.1. Code of corporate governance applied by the Company:

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).

However, the Company does not apply the following provisions of the AFEP-MEDEF Code:

AFEP-MEDEF Code	CGG's practice / Justification
Supplementary pension plan (section 23.2.6 of the AFEP-MEDEF Code) "Supplementary pension schemes with defined benefits must be subject to the condition that the beneficiary must be a director or employee of the company when claiming his or her pension rights pursuant to the applicable rules."	In some particular circumstances (in the event of the death, incapacity or dismissal of the beneficiary, except in case of gross or serious misconduct, after reaching the age of 55 and not followed by any other professional activity), a senior executive officer may still benefit from the supplementary pension plan in effect even though he is no longer an employee of the Group. Taking into consideration circular no. 105/2004 issued by the French Social Security Department on March 8, 2004, these exceptions are maintained with regard to the following elements: ➢ the current supplementary pension plan may continue to apply on a uniform and identical basis to all the other executive officers also benefiting from this plan without further consequences; and ➢ given the seniority of certain beneficiaries of this plan and in light of their service over the years, it would be unjustified for them to lose the benefit of the pension commitments made by the Company solely because of a departure arising under very special circumstances (death, disability) or occurring shortly before retirement, making it difficult to find further employment (dismissal without gross and serious misconduct, after the age of 55, not followed by any other professional activity). This plan was closed to new comers on July 1, 2014.
Time given to the Audit Committee to review financial statements (section 16.2.1 of the AFEP-MEDEF Code) "The time available for reviewing the accounts should be sufficient (no less than two days before by the Board."	The Audit committee usually meets before each session of the Board of Directors. For practical reasons that are linked to the presence of a director residing abroad, meetings of the Audit committee are held in general on the eve of the Board of Directors. In order that this constraint does not prevent the proper functioning of the Committee, the Chairman of the Board and the Chief Executive Officer ensure that the members of the Committee receive the necessary documents and information sufficiently in advance in order to have sufficient time to be able to review the accounts.
Composition of the Appointment-Remuneration Committee (section 17.1 of the AFEP-MEDEF Code) "It must not include any executive Officer and must mostly consist of independent directors."	Until December 31, 2016, this Committee was composed of 5 members including 3 independent directors. At that time, Mrs. Hilde MYRBERG, then Chairman of the Committee, took over the position of Chairman of the Board of Directors of CGG Services (Norway) AS, the Norwegian operating subsidiary of the Group, thus losing her quality of independent Director (application of criterion # 1 (see paragraph 1.2 of this section). As a result, Ms. Hilde MYRBERG resigned from her position within the Appointment-Remuneration Committee which is now composed of 4 members of whom 2 are independent. Taking into consideration the expertise of its members, the presence of half of independent directors and the reasons for the lack of independence of the other two members (term exceeding 12 years for one and position of executive officer of a shareholder who became a minority shareholder, but acting jointly with Bpifrance Participations for the other), the Board considered that, in this new set up, the Committee was able to fulfil its tasks in a satisfactory manner independently of the management.

In addition, as a listed company on the New York Stock Exchange, the Company is also subject to the Sarbanes – Oxley Act.

I.2. Composition of the Board of Directors as of the date of the present report:

Name	Independent [(a)]	Position	Age	Nationality	Initially appointed[(c)]	Term expires
Remi Dorval[(1)]	Yes	Chairman[(f)]	66	French	2005	2018
Jean-Georges Malcor	No	Chief Executive Officer[(b)] & Director	60	French	2011	2019
Loren Carroll[(2)]	Yes	Director	73	US	2007	2017
Michael Daly[(1)(4)(d)]	Yes	Director	63	English	2015	2017
Anne Guérin, permanent representative of Bpifrance Participations[(1)(2)]	No	Director	48	French	2016	2020
Didier Houssin[(1)(3)(e)]	No	Director	60	French	2015	2020[(g)]
Agnès Lemarchand[(2)(3)]	Yes	Director	62	French	2012	2017
Gilberte Lombard[(2)(4)]	Yes	Director	72	French	2011	2019
Hilde Myrberg[(4)]	No	Director	59	Norwegian	2011	2019
Robert Semmens[(1)(3)]	No	Director	59	US	1999	2019
Kathleen Sendall[(3)(4)]	Yes	Director	64	Canadian	2010	2018

(1) Member of Technology/Strategy Committee.
(2) Member of Audit Committee.
(3) Member of Appointment-Remuneration Committee.
(4) Member of Health, Safety, Environment & Sustainable Development Committee.

(a) 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".
(b) His term as Chief Executive Officer expires in 2017.
(c) All current Directors have been appointed pursuant to article L.225-17 of French Commercial Code.
(d) Mr. Daly was coopted by the Board of Directors' Meeting held on September 30, 2015 in replacement of Mr. Terence Young. Ratification of this cooptation was approved by Combined General Meeting held on January 11, 2016.
(e) Mr. Houssin was coopted by the Board of Directors' Meeting held on July 30, 2015 in replacement of Mr. Olivier Appert. Ratification of this cooptation was approved by Combined General Meeting held on January 11, 2016.
(f) Term of office was renewed on May 27, 2016 pursuant to section 9, § 1 of the Articles of Association authorizing the Board to further extend the office of the Chairman, once or several times for a total period not exceeding three years.

The positions held by the members of the Board of Directors in other companies are provided in item 6 – Board of Directors – of our annual report on form 20-F. The allocation rules of directors' fees and the amount paid to each director for 2016 are set forth in item 6 – Directors' compensation – of our annual report on form 20-F.

Independent directors:

The Appointment-Remuneration Committee and the Board review the qualification of the directors as independent on an annual basis before release of the annual reports.

In accordance with Article 8.2 of the AFEP-MEDEF Code, the Board of Directors considers that a director is independent when he or she has no relationship of any kind whatsoever with the company, its group or its management that may impair his or her freedom of judgment. The Appointment-Remuneration Committee and the Board of Directors rely on the criteria set out by the AFEP-MEDEF Code to assess the independence of each director as follows:

Name of the Director	Criterion no 1	Criterion no 2	Criterion no 3	Criterion no 4	Criterion no 5	Criterion no 6	Criterion no 7	Qualification of independence established by the Board of Directors
Remi DORVAL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Jean-Georges MALCOR	**No**	**No**	Yes	Yes	Yes	Yes	Yes	**No**
Loren CARROLL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Michael DALY	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Bpifrance Participations, represented by Anne GUERIN	Yes	Yes	Yes	Yes	Yes	Yes	**No**	**No**
Didier HOUSSIN	Yes	Yes	Yes	Yes	Yes	Yes	**No**	**No**
Agnès LEMARCHAND	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Gilberte LOMBARD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
Hilde MYRBERG	**No**	Yes	Yes	Yes	Yes	Yes	Yes	**No**
Robert SEMMENS	Yes	Yes	Yes	Yes	Yes	**No**	Yes	**No**
Kathleen SENDALL	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**

Yes = compliance with the AFEP-MEDEF Code in relation to independence criteria

No = non-compliance with the AFEP-MEDEF Code in relation to independence criteria

These criteria are the following:

Criterion no 1: not to be:
(i) an employee or an executive officer of the corporation, or
(ii) an employee or an executive officer or a director:
- of a company consolidated by the corporation, or
- of the company's parent company or
- of a company that the parent company consolidates
and not having been in such a position for the previous five years;
Criterion no 2 : not to be an executive officer of a company in which the corporation holds a directorship, directly or indirectly, on in which an employee appointed as such or an executive officer of the corporation (currently in office or having held such office during the last five years) is a director;
Criterion no 3: not to be a customer, supplier, investment banker or commercial banker:
- ✓ that is material for the corporation or its group;
- ✓ or for a significant part of whose business the corporation or its group accounts;

Criterion no 4: not to be related by close family ties to an executive director;
Criterion no 5: not to have been an auditor of the corporation within the past five years;
Criterion no 6: not to have been a director of the corporation for more than twelve years;
Criterion no 7: not to represent a significant shareholder of the company holding more than 10% of the voting rights).

With regard to the criterion relating to the business relationship, there is no business relationship between on the one hand, directors and/or companies in which they hold an office and, secondly, the company or its group. Therefore, in the absence of such relationship, in 2016, the Board of Directors did not have to assess the significant nature of any business relationship with regard to criteria determined in relation with the characteristics of the company and the business relationship in question.

Finally, the Board of Directors also confirmed that Mr. Remi Dorval, who qualified as independent before his appointment as Chairman of the Board, continued to meet all of the criteria set out by the AFEP-MEDEF Code.

In its meeting held on March 2, 2017, the Board therefore confirmed that six out of the eleven directors who were sitting on the Board at that time qualified as independent (i.e. more than half of the Board members, which is compliant with the recommendation of the AFEP-MEDEF Code[15]): Mrs. Agnès Lemarchand, Mrs. Gilberte Lombard and Mrs. Kathleen Sendall and Messrs. Loren Carroll, Remi Dorval and Michael Daly.

Update on the Company's application of the principle of a balanced representation of men and women on the board of directors:

Pursuant to a law dated January 27, 2011 and the AFEP-MEDEF Code, the Board of Directors has taken the initiative to better balance the women and men representation in the Board. As of the date of the present report, with five women on the board out of eleven directors, the number of women in the Board is exceeding 45%.

I.3. Activity of the Board of Directors:

1. *Role of the Board of Directors:*

Pursuant to article L.225-35 of the French commercial code, the Board lays down the guidelines governing the Company's activity and sees to their application. Subject to the powers explicitly assigned to the shareholders' meetings and within the limits of the business purpose, it considers any question affecting the proper operation of the company and it settles the matters concerning it.

2. *Preparation of meetings:*

The operating procedure of the Board is governed by internal rules and regulations (hereafter the "Internal rules and regulations of the Board of Directors") which are available on the Company's website (www.cgg.com). Their main provisions are summarized below.

Information to be provided to Directors:

In preparation of every Board meeting, the Board's Secretary sends documentation to the Directors containing all useful information on each of the points appearing on the meeting agenda. This documentation is generally uploaded on the secured website of the Board of Directors and its committees to enable the directors to review it before the meeting.

Furthermore, Directors are kept informed and consulted by the Chief Executive Officer between Board meetings about all events or operations of importance to the Company.

A draft version of press releases related to quarterly, semiannual and annual financial statements and all events or operations of importance for the Company are sent to Directors sufficiently in advance of their publication so they can transmit their comments to the general management. Other press releases are systematically sent to them at the same time they are published by the Company.

In general, the Chairman of the Board ensures that Directors are able to fulfill their duties. For this purpose, he assures that each of them receives the documents and information necessary to perform their duties. In addition, Board members usually meet for a two-day annual strategic seminar generally held close to one of our operational sites. The agenda of this seminar is determined by the Chief Executive Officer, in close cooperation with the Chairman of the Board and the Chairman of each Board Committee.

3. *Board meetings:*

At every meeting, the Board is informed of the evolution of the operating and financial performance of the main segments of the Group since the last meeting.

[15] 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.

This information per segment is supplemented by a particular review of the consolidated financial situation of the Group in terms of debt, cash flow and financial resources available available on a short-term basis and in the light of forecasts.

All transactions with a material impact on the strategy of the Group such as acquisitions, partnerships, disposals or strategic investments are subject to the prior authorization of the Board after the Technology/Strategy Committee has issued its recommendation. The Board is regularly informed on the progress of the transaction in question.

The Board of Directors meets at least four times per year in the presence of the statutory auditors and whenever circumstances so require.

Pursuant to the Internal Rules and Regulations of the Board of Directors, Directors may participate in Board proceedings through videoconferences or telephone conferencing provided such telecommunication means permit the identification of participants and allow them to effectively participate to the meeting in the conditions set forth in article L.225-37 of the French commercial code. They are in such cases counted as present for the calculation of the quorum and majority in accordance with the rules of the Board of Directors. However, pursuant to law the said procedure may not be used in connection with the following decisions:

- establishment of the annual financial statements and of the management report;
- establishment of the consolidated financial statements and of the report on the management of the Group, if that is not included in the annual management report.

In addition, pursuant to the internal rules and regulations of the Board of Directors, this restriction also applies to decisions relating to the establishment of the half-year financial statements and related Board report.

4. Rules applicable to Directors:

Duty of expression:

Each Director has a duty to clearly express his or her opinions and shall endeavour to convince the Board of the relevance of his or her position.

Diligence:

Each Director must devote the necessary time, care and attention to his or her duties. Before accepting any new position or office, he or she must consider whether he or she will still be able to fulfil this obligation. Unless he or she is genuinely unable to do so, he or she must attend all meetings of the Board of Directors and of any committees of which he or she is a member, and all general meetings of shareholders.

Conflicts of interest:

Each Director must inform the Board about any conflict of interest situation, even potential, that may involve him/her because of the duties he/she may hold in other companies.

In such a case, the director shall abstain from taking part in voting on the related resolution.

Share ownership:

The Board's internal regulations provide that each director is required to own at least 156 of our shares.

Rules applicable to transactions carried on Company's shares by Directors:

The Directors may be led to hold information relative to the Company that has come to their attention because of their position as director and which, if made public, might have an appreciable effect on the Company's share price. The significant character of a piece of information is normally related to the influence it may have on the financial results of the listed Company. A significant piece of information can relate to operating revenues, financial or budgetary estimates, investments, acquisitions or divestments, main discoveries, stops of important manufacturing units, launching or withdrawal of products, significant changes in shareholding or management, transactions affecting the capital, the dividend, the appearance or the settlement of a dispute, etc.

In such a case, the internal regulations provide that the directors must refrain:

- from exploiting such information in their own behalf or in behalf of others, directly or through an intermediary, by purchasing or selling the Company's securities or financial products connected with the said issue;
- from communicating the said information for purposes other than and for an activity other than the one in connection with which it is held.

In addition to the above, Directors must abstain from carrying-out any transaction on the Company's shares, of whatever nature, during the 30-calendar days preceding the publication of quarterly, semiannual or annual results and until the day after the publication date. Such publications occur the last week of February, mid-May, the last week of July and mid-November.

In case of doubt, the Directors are invited to contact the Group Chief Financial Officer.

The Directors must notify to the *Autorité des Marchés Financiers* the transactions that they may carry out on the Company's shares, pursuant to the provisions of Regulation (EU) no 596/2014 of the European Parliament and of the Council of April 16, 2014. These provisions are described in the internal rules and regulations of the Board of Directors.

Activity of the Board of Directors in 2016:

In 2016, the Board of Directors of the Company met ten times. The average attendance rate of directors at these meetings was 90.52 %.

The table below summarizes the individual attendance rate of directors in office at December 31, 2016 to the board meetings.

Directors	Attendance rate to the board meetings in 2016
Remi DORVAL	100%
Jean-Georges MALCOR	100%
Loren CARROLL	80%
Michael DALY	90%
Anne GUERIN, permanent representative of Bpifrance Participations(1)	100%
Didier HOUSSIN	90%
Agnès LEMARCHAND	60%
Gilberte LOMBARD	100%
Hilde MYRBERG	90%
Robert SEMMENS	90%
Kathleen SENDALL	100%

(1) Director since May 27, 2016

Statutory, consolidated and interim financial statements – Annual Shareholders' meeting:

The Board, among others, approved the Company's annual financial statements and the 2015 consolidated annual financial statements and reviewed the interim quarterly and half-year results for fiscal year 2016 and the 2016 forecasts and the 2017 pre-budget. The Board also convened the General meeting of shareholders held in May 2016 and approved the reports and resolutions to be submitted to shareholders' approval.

Governance:

The Board approved the renewal of the Chairman's term until the general meeting to be held to approve the financial statements of the fiscal year ending December 31, 2017. The Board also approved the amendments to its internal rules and regulations pursuant to Regulation (EU) no 596/2014 of the European Parliament and of the Council of April 16, 2014. The Board also approved the non-audit services pre approval policy and the amendments to the Audit committee charter pursuant to the new European regulation on audit.

The Board reviewed the qualification of Directors as independent and the method of allocation of directors' fees and the composition of the Board committees.

Compensation:

The Board approved the compensation components of the senior executive officers for fiscal year 2016. The Board also decided to implement (i) a stock-options plan for certain employees of the Group and a specific plan for the four Corporate Officers and the members of the Corporate Committee subject to performance conditions, and (ii) a performance units plan for certain employees of the Group and the members of the Corporate Committee, the allocation being subject to performance conditions.

The Board also determined that the performance conditions set out in the stock option plan dated June 26, 2012 applicable to the senior executive officers and the former Executive committee members (3rd batch) and in the stock option plan dated June 24, 2013 applicable to the senior executive officers and the other members of the Corporate Committee (2nd batch) and in the stock option plan dated June 26, 2014 (1st batch) were not met.

Financial and strategic transactions:

The Board implemented a €350 million capital increase in cash with preferential subscription rights in favor of holders of existing shares, approved by the General meeting on January 11, 2016. This capital increase was dedicated to financing the transformation plan of the group. The Board also approved the amendments to the French Facility agreement and the US Credit agreement and implemented the related security agreements[16].

The Board also approved the strategic orientations of the Group for 2016.

Finally, the Board, acting upon delegation of the general meeting, implemented (i) the reverse share split on the company's shares by the allocation of one new ordinary shares with a nominal value of €12.80 in exchange of 32 ordinary shares with a nominal value of €0.40 and (ii) the related share capital reduction through the diminution of the nominal value of the share.

Appraisal of the operation of the Board and its committees:

The Board of Directors organizes an annual appraisal of its operation and of its Committees. Up to 2014, this self-appraisal had been analyzed by an outside consultant. In 2016, the appraisal was carried out by the Chairman of the Remuneration-Appointment committee based on a questionnaire sent to all directors. In compliance with the provisions of the AFEP-MEDEF Code, the Board appraisal questionnaire in 2016 was amended to include a component related to the appreciation of the actual contribution of each director to the Board's work.

The Board of Directors organizes an annual appraisal of its operation and of its Committees'. This appraisal is carried out by the Chairman of the Remuneration-Appointment committee based on a questionnaire sent to all directors.

The Directors have globally favorably assessed the way the Board and its committees operate. They underlined their satisfaction with the governance of the Group and the quality of the communication between the general management and the Board. They insisted on the quality of the discussions and work of the Board and indicated that they were satisfied with the way the Chairman was leading the Board's works and conducting its discussions.

[16] *It is reminded that the terms and conditions of these financial transactions had been approved by the Board of Directors in December 2015.*

They confirmed that they intended to deepen their review of the Group strategy. Besides, they have also expressed the wish to be regularly updated on the evolution of the markets on which the Company operates and on the industry. Finally, regarding the documentation package sent to them prior to each meeting, they have expressed the wish that presentations be sent well ahead of the meetings.

In compliance with the provisions of the AFEP-MEDEF Code, the Board appraisal questionnaire in 2016 was amended to include an item relating to the assessment of the individual contribution of each director to the Board's work.

I.4. Committees established by the Board of Directors:

The Internal rules and regulations of the Board of Directors define the composition, duties and operating procedures of the Board committees. The Audit Committee and the Appointment and Remuneration Committee have their own charter. They are appended to the Internal Rules and Regulations of the Board of Directors and are available on the Company's website (www.cgg.com).

1.4.1. Appointment-Remuneration Committee:

a) 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;
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 ("C-Com") members 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 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.

b) Composition:

As of the date of this report, the members of the Committee are as follows:

Kathleen Sendall (Chairman)(*)
Didier Houssin
Robert Semmens
Agnès Lemarchand (*)

(*) independent director

This Committee is composed of half of independent Directors (see explanation of this exemption to the AFEP-MEDEF Code in I.1 of this paragraph). The Chairman of the Board and the Chief Executive Officer are involved in the work of the committee relating to the appointment of directors.

c) Activity:

In 2016, this Committee met seven times. The average meeting attendance rate was 77.14 %.

During these meetings, the Committee examined, inter alia, (i) the compensation of the Chairman of the Board, of the Chief Executive Officer and of the Corporate Officers ("*Directeurs Généraux Délégués*") and their 2016 objectives, (ii) the compensation of the other members of the C-Com, (iii) the amount of the Directors' fees, (iv) the implementation of the new LTI program[17], (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 2016 bonus plans, (viii) the succession planning, (ix) the implementation of the evaluation process for the Board and the Chief Executive Officer, (x) the composition of Board and its Committees, and (xi) the appointment of Bpifrance Participations as director.

[17] *The description of the stock-option and performance unit plans implemented in 2016 are set forth in item 10 of the "2016 Additional Document" available on our website.*

Principles and rules to determine the remuneration of the executive officers:

Pursuant to article L.225-37 of the Commercial Code, the compensation of the Chairman of the Board, the Chief Executive Officer and the Corporate Officers (*Directeurs Généraux Délégués*) is defined by the Board of Directors upon proposal from the Appointment-Remuneration Committee.

The positioning of the compensation of the Chief Executive Officer and the Corporate Officers of the Company is regularly reviewed against the Company's sector and comparable compensation markets on the basis of studies carried out by specialized external firms.

Chairman of the Board of Directors

The compensation of the Chairman of the Board of Directors comprised a fixed element (from which is deducted the amount of his benefit in kind (company car) and a fixed amount of Directors' fees. He does not benefit from any other kind of compensation.

Chief Executive Officer and Corporate Officers

The Board of Directors and the Appointment-Remuneration Committee pay particular attention to ensure that the compensation policy applied is linked to the performance of the Company and focuses on creating long-term value and the fulfillment of annual financial objectives (quantitative criteria) and the achievement of individual objectives (qualitative criteria). Consequently, significant weight is given in the structure of their compensation to the variable part of the compensation package, both short term and long term, whereas a lower weight is assigned to the fixed part compared to market practice.

The annual short term aggregate compensation includes a fixed element, a variable 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. The target amount of the short term variable incentive (the target being paid when 100 % of the quantitative and qualitative objectives are achieved) applied to the Chief Executive Officer and the Corporate Officers is expressed as a percentage of the fixed part of the compensation. It is equal to 100% of the fixed salary for the Chief Executive Officer and to 75% of the fixed salary for the three Corporate Officers.

Finally, in case of financial overachievement, the allocation of short term variable incentive compensation may involve:

- the quantitative criteria (financial objectives) for a maximum of 133.3 % of the fixed salary for the Chief Executive Officer and of 100 % of the fixed salary for the Corporate Officers, and
- the qualitative criteria (individual objectives) for a maximum of 66.6 % of the fixed salary for the Chief Executive Officer and of 50 % of the fixed salary for the Corporate Officers.

The long term compensation (incentive plans) is based on the multi annual performance of the company.

A detailed description of the compensations paid in 2016 to the senior executive officers are set forth in the management report (item 6 – Compensation – of our annual report on form 20-F). Information relating to deferred severance indemnity and supplementary retirement plan are also included.

1.4.2. Technology/Strategy Committee:

a) Responsibilities :

The Technology/Strategy committee's assignments are to study:

- The company's strategic options and orientations in relation to technology, markets and business;
- The technologic development strategy in the various business of the Group,
- The broad lines of the Group's budget;
- The intellectual property protection policy;
- The main R&D programs;
- The strategic M&A transactions;
- The company's organic development;
- The projects related to financial transactions;
- The major investment transactions or disposal of assets.

The Committee regularly invites directors other than the committee members who wish to participate to its works. The Committee reports on its work to the Board of Directors.

b) Composition:

As of the date of this report, the members of the Committee are as follows:

Remi Dorval(*) (Chairman)
Michael Daly(*)
Anne Guérin
Didier Houssin
Robert Semmens

(*) independent director

c) Activity:

During 2016, this committee met eleven times. The attendance rate of Committee members in this meeting was 88.89 %. During these meetings, the Committee has reviewed the group's strategic perspectives and the 2016-2018 business plan (and its updates), then the 2017-2019 business plan. The Committee analyzed and assessed the group's various existing financial restructuring options in the short term and long term and had regular updates with the management on the discussions with each category of creditors.

As part of its ongoing activities, the Committee reviewed the competition, the multi-client market and the world seismic fleet. The committee was also presented an update on the current technological projects and the strategic contracts.

I.4.3. HSE/Sustainable Development Committee:

a) 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 is maintaining and improving HSE & SD performance;
- 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;
- 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.

b) Composition:

As of the date of this report, the members of the Committee are as follows:

Michael Daly(*) (Chairman)
Kathleen Sendall (*)
Gilberte Lombard (*)
Hilde Myrberg

(*) independent director

Mr. Michael Daly has been chairing the Committee since January 1, 2017. During fiscal year 2016, the Committee was chaired by Mrs. Kathleen Sendall.

c) Activity:

In 2016, the Committee met three times. The attendance rate of Committee members was 90%.

During these meetings, the Committee reviewed the following items: (i) the high potential incidents that occurred in the Land and Marine as well the Group HSE indicators, (ii) the review of specific risks (security risks, marine lifting and handling risks, road transportation risks), (iii) the HSE good practices implemented within the Group and the actions implemented in terms of sustainable development.

I.4.4. Audit Committee:

Pursuant to its Charter, the Audit Committee is responsible for assisting the Board of Directors and, as such for preparing its assignments.

a) Responsibilities:

The Audit Committee shall report regularly on the practice of its missions to the Board of Directors. The Committee shall also report on the audit process of the financial statements, on how such process contributed to the integrity of the financial statements and the role the Committee played in such process. The Committee shall immediately inform the Board of any difficulty encountered.

In this scope, the Committee is specifically in charge of:

- Assignments relating to accounts and financial information:

  In accordance with the provisions of section L.823-19 of the Commerce Code, the Audit Committee is in charge of monitoring the financial reporting process and shall make any relevant recommendation in order to ensure its integrity.

  - 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;
    - 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 financial statements of the Group.
  - Hearing the statutory auditors report on their review, including any comments and suggestions they may have made in 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:

  In accordance with the provisions of section L.823-19 of the Commerce Code, the Audit Committee shall monitor the effectiveness of the company's internal control and risk management systems, and, if need be, of internal audit systems, in relation to the preparation and treatment of accounting and financial information, without prejudicing internal audit's independence.

  In this scope, the Committee is in charge of:

  - Reviewing with the 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 the 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...) and on the key processes (treasury, purchase, closing of the accounts, fixed assets...), (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 and the EVP Global Operational Excellence, Internal Audit and Risk Management/HSE/SD:

    - 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 or renewal is to be submitted to the shareholders' meeting. Such recommendation shall be prepared in accordance with section 16 of Regulation (EU) n° 537/2014 (the "Regulation"); the Audit Committee shall also issue a recommendation when the renewal of the auditors is contemplated under the conditions set forth in section L.823-3-1 of the Commerce Code;

  - Monitoring the auditors' compliance with the independence conditions defined in section L.822-9 to L.822-16 of the Commerce Code and take any measures necessary to the application of paragraph 3 of section 4[18] of Regulation (EU) n°537/2014 and make sure that the conditions set forth in section 6 of the Regulation are complied with;

  - Following the way the auditors fulfill their mission and take into account the statements and conclusions issued by the *Haut Conseil du commissariat aux comptes* as a result of their review pursuant to section L.821-9 and seq. of the Commerce Code;

  - Approving the supply of non-audit services referred to in section L.822-11-2, pursuant to the policy prepared by the Audit Committee and ratified by the Board of Directors;

  - 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.

- Other assignments:

  - Reviewing with management and, when appropriate, the external auditors the transactions binding directly or indirectly the Company and its executive officers;

  - Handling, anonymously, any feedback concerning a possible internal control problem or any problem of an accounting and 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 Chief Executive Officer, the Senior Vice President Group Chief Accounting Officer, the auditors, the EVP Global Operational Excellence, Internal Audit and Risk Management/HSE/SD who presents an update on significant missions at least twice a year.

[18] *When the total fees received from a public-interest entity in each of the last three consecutive financial years are more than 15% of the total fees received by the statutory auditor or the audit firm or, where applicable, by the group auditor carrying out the statutory audit, in each of those financial years, such a statutory auditor or audit firm or, as the case may be, group auditor, shall disclose that fact to the audit committee and discuss with the audit committee the threats to their independence and the safeguards applied to mitigate those threats. The audit committee shall consider whether the audit engagement should be subject to an engagement quality control review by another statutory auditor or audit firm prior to the issuance of the audit report.*

The Audit committee usually meets before each session of the Board of Directors. For practical reasons that are linked to the presence of director residing abroad, meetings of the audit committee are held in general on the eve of the Board of Directors. In order that this constraint does not prevent the proper functioning of the Committee, the Chairman of the Board and the Chief Executive Officer ensure that the members of the Committee receive the necessary documents and information sufficiently in advance in order to have sufficient time to be able to review the accounts.

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.

b) Composition:

As of the date of the present report, the members of the Committee are as follows:

Gilberte Lombard (Chairman)(*)
Loren Carroll(*)
Anne Guérin
Agnès Lemarchand(*)

(*) 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. In 1990, she was also appointed secretary of the board and was in charge, in particular, of the relations with the main shareholders of the bank.

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 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.

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.

c) Activity:

In 2016, the Committee met eight times with an average attendance rate of committee members of 80.56 %.

During these meetings, the Committee reviewed draft versions of the annual consolidated financial statements for 2015 (and in particular the impairment tests), the statutory financial statements for 2015 and the 2016 half-year statutory financial statements and the consolidated financial statements for the first quarter, the first semester and the third quarter of 2016. It also reviewed the 2016 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 2015 annual report on Form 20-F and the *Document de Référence*.

The Committee also met with the external auditors without General Management being present. During this meeting, the auditors and the Committee had an overview of the audit work performed for the closing of the 2015 financial statements.

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. The Committee reviewed the multi-client activity including an in-depth review of its accounting principles and the analysis of the impact of the amendment of IAS 38 on the accounts.

The 2016/2015 risk mapping, before and after mitigation has been presented to the Audit committee. In this scope, 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 project management risk, intellectual property risk, the joint venture risks, the business interruption risk and monitored the ethics committee's actions. The Committee also follows the commercial consultants network of the Group on a regular basis.

The Committee also examined the work to be performed by the statutory auditors in the scope of their audit on the 2016 financial statements and approved their fee estimates for this work. The audit reviews are mostly focused on significant risks which may impact the financial statements. 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 2016 and approved them as necessary. The committee also reviewed the effects of the audit reform on said procedure and on its charter and amended them accordingly.

The Committee reviewed the activities of the internal audit team, which acts according to a plan established by the E-Com and submitted 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 lines on a five-year basis. It includes a review of the risks identified in the risk mapping presented to the Committee by the Enterprise risk management department.

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 follows the evolution of the Group's legal perimeter and, in particular the rationalization program for the Group's legal structures.

I.5. Shareholders' attendance conditions at the shareholders' general meeting:

Subject to the provisions of articles L.225-104 and seq. of the French commercial code, the shareholders' attendance conditions at the shareholders' general meeting are set forth in articles 14, 15, and 16 of the Company's by-laws.

I.6. Information likely to have an influence in case of take-over bid:

Information set forth in article L.225-100-3 of the French commercial code related to the information likely to have an influence in case of take-over bid are described in item 16 of this report.

II. LIMITATIONS IMPOSED ON THE POWERS OF THE CHIEF EXECUTIVE OFFICER

II.1. General management organization:

II.1.1. Split of the Chairman and Chief Executive Officer positions:

Since June 30, 2010, the positions of Chairman of the Board and Chief Executive Officer have been split. The Board decided to keep the split of the functions when Mr. Remi Dorval was appointed Chairman of the Board.

During fiscal year 2016, the Chief Executive Officer was assisted by three Corporate Officers ("*Directeurs Généraux Délégués*"). The term of office of each Corporate Officer was terminated on January 4, 2017.

II.1.2. Role of the Chairman of the Board of Directors:

The Chairman represents the Board of Directors and, except in exceptional circumstances, is the only one with the capacity to act and speak on behalf of the Board. He organizes and oversees the activities of the Board of directors and ensures that the corporate bodies operate in an efficient manner, in compliance with good governance principles. He ensures, in particular, that directors are in a position to fulfill their duties and are provided with sufficient information in this respect. He reports on annual basis to the shareholders' meeting on the board of directors' composition, preparation and organization of the board of directors' work, on internal control and risk management procedures implemented by the Company. The Chairman is regularly kept informed by the Chief Executive Officer of the significant events relating to the Group business and may request from him any information that may be necessary for the Board and its committees. He may meet with the external auditors of the Company in order to prepare the meetings of the Board. Upon request of the general management, he may represent the Company vis à vis top level representatives of governmental authorities and major partners of the group, whether in France or abroad.

II.1.3. Role of the Chief Executive Officer:

The Chief Executive Officer is in charge of the general management of the Company. He is granted the broadest powers to act on behalf of the Company in any circumstances in compliance with the corporate governance principles applied by the Company and except for those powers vested in the Company's general meeting or Board of Directors by applicable laws. He represents the Company vis-à-vis third parties. He is responsible for the financial information released by the Company and presents, on a regular basis, the Group's results and prospects to the shareholders and the financial market. He reports on significant events for the Group business to the Board and its Chairman.

II.2. Limitations of authority of the Chief Executive Officer:

The Board of Directors imposed no restrictions on the powers of the Chief Executive Officer (*Directeur Général)*. In consequence, in accordance with the law and article 10 of the Company's articles of association, the Chief Executive Officer is vested with the broadest powers to act in all circumstances in the name of the Company.

III. INTERNAL CONTROL AND RISK MANAGEMENT PROCEDURES IMPLEMENTED BY THE COMPANY

The Company's internal control and risk management, effected by the Board of Directors, the management and by other personnel is designed to provide reasonable assurance regarding the achievement of objectives in the following areas:

- completion and optimization of operations, including the safeguarding of resources,
- the reliability and sincerity of financial information, and
- compliance with applicable laws and regulations.

The principal objective of our internal control and risk management systems and processes is to identify and control risks related to the activities of the Company, as well as the risks related to errors in accounting and financial reporting.

The Company is listed both in France and in the US and is therefore subject to both the Sarbanes-Oxley Act and the French "*Loi de Sécurité Financière*". In the scope of implementation of the recommendations and provisions of the Sarbanes-Oxley Act relating to internal control, the Company decided to apply the 2013 COSO internal control integrated framework, established by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO 2013"). The *Autorité des Marchés Financiers (AMF)* has subsequently integrated the principle elements of COSO in its frame of reference.

Pursuant to the Sarbanes-Oxley Act, the Company must include in its annual report on Form 20-F (the "20-F Report") filed with the Securities Exchange Commission, a management report on internal control over financial reporting. This report along with the opinion of the auditors on the Company's internal control will be included in item 15 of the 20-F Report for fiscal year 2016. A translation of this item 15 into French will be included in the "*Document de Référence*" for fiscal year 2016.

III.1. Control Environment:

The control environment is the foundation of all the components of internal control and risk management of the Group, providing discipline and structure. The discussion below describes the Group's Charts and Codes setting its expectations in integrity and ethics, it describes how the Group is organized and structured to assure internal control and risk management, and it describes how authority and responsibilities are delegated in the Group.

III.1.1. Integrity and Ethics:

Integrity and Ethics are essential values for the Group internal control.

The Company's standards and expectations in integrity and ethics are codified in its Chart of Ethics, in its Statement of Values and in its Code of Business Conduct that apply to all employees of our Group. These documents are widely distributed globally in the Group and they are also available to all staff on the Group's employee internet portal, *InSite.*

In addition, pursuant to section 406 of the Sarbanes Oxley Act, the Board of Directors implemented a code of ethics which is applicable to the Chairman, the Chief Executive Officer, the members of the E-Com and the Disclosure Committee. This code defines rules of conduct and integrity which the persons must follow in the performance of their function and obligations relating to disclosure.

Values and Chart of Ethics

The Group has developed and communicated widely to all its employees a statement of its Values – *Our Values.* This statement of values centers around the Group and its employees' commitment: *operate safely and with integrity, have a passion for innovation, be socially responsible.*

The Group's chart of ethics represents a commitment by the Group to its clients, its shareholders, its employees and its partners to comply with local laws and regulations and to respect the principles of its Code of Business Conduct.

Ethics and Business Conduct

The Group's Code of Business Conduct is a guide to appropriate conduct. In conjunction with the Group's statement of Mission, Vision and values it provides a framework for all employees to perform their jobs with integrity. The Business Code of Conduct addresses compliance with laws and regulations, prevention of conflicts of interest, respect for persons and the environment, protection of the Group's assets, financial security and transparency, internal verification and the role of Internal Audit. The Code is translated into eight languages. In addition, certain recommendations have been issued to the employees of the Group in order to draw their attention to unlawful behaviors and actions relating to payments, facilitations, gifts and invitations, contribution to political parties and donations to non-profit organizations. Besides, in June 2013, a business integrity booklet was released in order to help the employees to understand the concept of corruption and the associated rules, risks and red flags and to apply the Code of Business Conduct and determine the appropriate ethical behavior to adopt in every circumstance. Finally, the selection of the group commercial consultants and the management of their network is strictly monitored through a procedure defining precise and identical rules applicable within all entities of the Group in order to ensure, in particular, that the commercial consultants comply with our Chart of Ethics and Business Code of Conduct and the applicable international conventions and national regulations against corruption (such as but not limited to the conventions of the United Nations, the OECD, the US Foreign Corrupt Practices Act (FCPA) or the UK Bribery Act). This procedure is available on the Group's employee internet portal, *InSite*.

To support the Business code of conduct, the Group has established an Ethics Committee which can be contacted anonymously by employees concerning issues related to conduct. The Group has also established a global ethics alert phone line, *Ethics Alert,* which is operational 24 hours, 7 days a week. This reporting line is in compliance with SOX and with CNIL (*Commission Nationale de l'Informatique et des Libertés*) recommendations. Finally, the training program on ethics has been reinforced by the implementation of an e-learning for all the employees of the group. We have also put in place a training program on the prevention of corruption. This training session has been delivered in our main sites worldwide.

Finally, in May 2014 and in January 2016, we received a moderate assurance report on CGG anti-corruption program issued by MAZARS, one of our statutory auditor and ADIT, an independent third party. The MAZARS-ADIT anti-corruption framework® is based on national and international laws and regulations (French Law, FCPA, UK Bribery Act 2010, OECD Convention, and UN Global Compact 10th Principle) and industry best practice. It covers five areas (Control environment, risk assessment, control activities, monitoring, information and communication) which are broken down into more than 200 control points. The framework has been validated by an International Advisory Board and by the French Central Corruption Prevention Department ("Service Central de Prévention de la Corruption "), an inter-ministerial department attached to the French Ministry of Justice. The purpose of this audit is to review the adequacy of our Program based on the MAZARS-ADIT anti-corruption framework®, and the implementation of such Program. This audit has been carried out in two phases over 2014 and 2015, the second phase including the entities acquired from Fugro in 2013.

As a result of this audit, MAZARS-ADIT confirmed that there were no major discrepancies have been noted between CGG Program and MAZARS-ADIT anti-corruption framework®. MAZARS-ADIT also made some recommendations regarding the implementation of certain aspects of existing procedures. In particular, they have recommended supplementing the anticorruption measures already in place within the Group by setting-up a cross-cutting committee independent from operational management to reinforce homogeneity, consistency and follow-up of anti-corruption processes and organization and their evolutions. This committee, called Compliance Committee, has been effective since July 2014. It was chaired by the EVP General Secretary and attended by the Chairman of the Ethics Committee and by the SVP ERM, HSE and SD. Since September 1, 2015, in order to clarify the role and responsibilities of the various bodies involved in the compliance function, we replaced the Committee by a Compliance Officer in charge of managing the anti-corruption program in all the countries where we operate, for all our Business Lines.

III.1.2. Organization of the Group:

The Group's organizational structure provides the framework within which its activities for achieving its entity-wide objectives are planned, executed, controlled and monitored. Within this framework, key areas of authority and responsibility, as well as appropriate lines of reporting, are established. The organizational structure relative to internal control and risk management is described below.

The organizational structure of the Group fulfills three main objectives:

- Align the management structure with the Group's new size and development strategy, taking into account the current business environment;
- Better address the new technological and commercial challenges of our markets;
- Be more agile and more efficient, allowing the Group to better face the current market conditions and be prepared for the future.

The Group is organized around eight Business Lines, six Corporate Functions and two Group Departments.

Business Lines:

The Business Lines are the following:

- Equipment (including the Sercel business entities, such as Metrolog, GRC and De Regt);
- Marine exclusive Acquisition;
- Land Acquisition (including Land EM and General Geophysics);
- Multi-physics;
- Multi-Client and New ventures;
- Subsurface Imaging;
- GeoSoftware (including the software sales and development of Jason and Hampson Russell) and;
- GeoConsulting (including the consulting activities of Jason and Hampson Russell, the consulting and geologic library business of Robertson and Data Management Services).

These activities are organized into three segments for our financial reporting: Equipment, Contractual Data Acquisition (which includes Marine Exclusive Acquisition, Land Acquisition and Multi-Physics) and Geology, Geophysics & Reservoir ("CGR") (which includes Multi-Client and New Ventures, Subsurface Imaging, GeoSoftware and GeoConsulting) and Non-Operated Resources.

Corporate Functions:

These six Corporate functions, at the Group level, ensure a global transverse approach and provide support across all activities, i.e.: (i) the Finance Function, (ii) the Human Resources Function, (iii) the Global Operational Excellence Function, Internal Audit & Risk Management, Health, Safety and Environment & Sustainable Development, (iv) the General Secretary, (v) the Sales and Marketing and Geomarkets Function and (vi) the Technology Function.

Group Departments:

These two Group Departments are, respectively, in charge of (i) Communication and (ii) Investor Relations.

III.1.3 Group Governance:

The Chief Executive Officer:

The Chief Executive Officer is given wide authority by the Board of Directors[19] of the Company to manage the Company.

The Chief Executive Officer has ultimate ownership and responsibility for the internal control and risk management system. He ensures the existence of a positive control environment, and he is responsible for seeing that all components of internal control and risk management are in place. The Chief Executive Officer provides leadership and direction to the Executive Committee.

In 2016, The Chief Executive Officer was assisted by three Corporate Officers ("*Directeurs Généraux Délégués*") respectively in charge of:

- Strategy, General Secretary and Investor Relations;
- Risk Management, HSE and Sustainable Development; and
- Technology and Global Operational Excellence.

The Chief Executive Officer and the Corporate Officers' responsibilities are cascaded to heads of the Business Lines, Function and Group Departments. Thus they have responsibility for internal control and risk management related to their unit's objectives. They guide the development and implementation of internal control rules and procedures that address their unit's objectives and ensure that these are consistent with the Group's objectives.

To achieve the goals set by the Board of Directors, the Chief Executive Officer manages the organization through senior executives and through two main committees that he chairs:

Corporate Committee (C-Com)

The C-Com is chaired by the Chief Executive Officer and brings together the three corporate officers of the Group and the HR Executive Vice President. It is a decision body which meets every month, and more often if necessary, for the review and general conduct of the business of the Group. The C-Com monitors and controls each business's performance as well as the implementation of the group strategy and the carrying-out of its projects through the Business Lines, Functions and Group Departments. The members are interfacing regularly with the Board, the market and participate in the financial and business roadshows. The General Secretary and Group General Counsel attends the C-Com meetings as Committee secretary.

[19] *The structure and responsibility of the Board of Directors having been described in item 6 of our report on form 20-F, it will not be described further in this section.*

Executive Committee (E-Com)

The E-Com meets every month and supports the C-Com. The E-Com brings together the members of the C-Com and the head of each Corporate Function and of the most significant business lines (Multi-clients, Subsurface Imaging, Land, Marine and Equipment). It is mainly a discussion and proposition body between the Business Lines and Functions for the Group, but also a decision body to validate and follow-up all projects and decisions with transverse impacts. It will in particular:

- Monitor and follow the execution of decisions taken at the C-Com level,
- Conduct business review and reports on operational activities,
- Insure Group transverse initiatives consistency throughout the BLs,
- Manage the business review,
- Monitor and follow the management of the support functions and shared-services.

The E-Com shapes the values, principles and major operating policies that form the foundation of the Group's internal control system. The E-Com takes actions concerning the Group's organizational structure, content and communications of key policies and the planning and reporting systems the Group will use. The E-Com is directly responsible for internal control and risk management in the Group. It defines the orientations for internal control and it oversees its implementation. These obligations are cascaded through the organization in each Business Line and each Function.

The Corporate Functions:

Corporate Functions report either to the Chief Executive Officer or to one of the Corporate Officers.

- ✓ **Finance Function**:

The Senior Executive Vice President Finance manages the Function and serves as the Group's Chief Financial Officer. The Finance Function reports to the Chief Executive Officer.

In the Finance Function, the following Departments play critical roles in internal control and risk management:

Group Financial Control: this department oversees the budgeting process as well as the monthly, quarterly and annual financial reporting. It prepares Group financial synthesis in close coordination with Business Lines' financial controllers and is very closely involved in the preparation of the Board Committee's meetings (Audit Committee, Strategic Committee, Appointment and Remuneration Committee). Along with the Business Lines' financial controllers, it ensures, on a regular basis, oversight of the Group's operations and follow-up of the action plans initiated at the Group level. Finally, on a case by case basis, it also provides financial support for any significant investment. Finally, in connection with the Chief Accounting Officer, it oversees the department in charge of the supervision of the financial information systems.

Accounting and Consolidation: headed by the Chief Accounting Officer, this department is, from a general standpoint, in charge of producing and supervising financial accounts within the Group, on an individual basis for each group legal entities and on a consolidated basis and as part of the annual and quarterly reports. In this perspective, it elaborates and ensures that through the organization accounting procedures are in place and makes sure, on a continual basis, that they are in accordance with legal and regulatory reporting requirements applicable to financial information to be publicly released. This Department also has oversight of Internal Control of the Group. It oversees the implementation of process and good practice to assure the effectiveness of Internal Control across the Group. This oversight is carried out under the Group's internal control manager.

Treasury: this department ensures management of Group available funds and their investment as well as Group long-term financial resources (bonds...) and the relationships with the banking community. It oversees and manages risks associated with currency fluctuations, credit and counterparty risks and commercial political risks. Treasury also manages a financial committee which reviews, on a monthly basis, the Group financial condition at the C-Com level.

Tax: from a general standpoint, this department is in charge of managing the Group tax obligations and supervising the associated risks. In this perspective, it oversees that all tax returns are filed in a timely manner all across the organization. On a case by case basis, it is involved by the operation teams ahead of significant projects in order to analyze and determine the most appropriate tax schemes.

The Finance Function carries out its missions according to the directives established by the Executive Committee in the *Internal Control Guide* and the *Internal Control Objectives.*

- ✓ **Human Resources Function:**

The Human Resources Function plays a key role in implementing Internal Control and Risk Management. As a driver and center of expertise in recruitment, development and the motivation of the Group's employees, it assists the Group's in meeting its objectives.

The Human Resources Function develops and assures a coherent global vision in each HR area and thereby contributes to the attractiveness of the Group through employees' development, commitment and recognition.

Human Resources supports the Group's change and progress efforts within the organization, anticipating the Group's needs and assuring that competent, talented employees are available to fill the Group's needs and development.

The Human Resources Function reports to the Chief Executive Officer.

Recruitment – Global recruitment is managed by a cell of professionals dedicated to putting in place processes and tools to assure that the Group is well positioned to attract talent and to assure that open positions are communicated throughout the Group. Human Resources Department supports Business Lines, Functions and Group Departments in their recruitment and assessment efforts for specific posts in their countries of operations.

Development – Four key processes are structured to support individual development, allow performance improvement and anticipate any career or organization change: position and competency mapping, employee performance reviews and assessments, talent reviews and career plan reviews.

- The Group's positions, and functions, are mapped in the *Magellan* system on 9 levels in order to clarify the assessment of the Group's needs and ensure coherence between Business Lines, Functions, and Group Departments on one hand, regions and countries on the other hand. The system also structures and facilitates the identification of development and competency requirements for specific positions.
- Individual performance evaluations are conducted globally, throughout the Group, based on an intranet based toolset provided by Human Resources department. Evaluations of performance and competency are reviewed between managers or supervisors and their direct reports.
- The specific needs of employees identified to have a significant potential for managerial or technical development are further evaluated and reviewed by the Group's senior management in Talent Review meetings.

Training – CGG University organizes training programs to respond to the needs of the organization. The University acts either alone or in partnership with external consultants for training session in particular in the areas of leadership, safety and acquisition of technical expertise. Training is made available to all levels from new hires to experienced senior managers. Specific training modules are offered on *Internal Control* and *Performance*.

Succession Planning – The future needs of the organization and the potential of the Group's employees are reconciled through a succession planning exercise carried out in each Function, each Business Line and Group Departments. These reviews are consolidated by Human Resources to provide a global view of the Group's needs in key areas and to identify development and training required to prepare its employees for future responsibilities.

Compliance – Human Resources professionals follow-up local laws and regulations in their domain and ensure with concerned parties that the Group remains in compliance.

- ✓ **Global Operational Excellence, Internal Audit & Risk Management, Health, Safety and Environment & Sustainable Development Function:**

Global Operational Excellence:

The Global Operational Excellence Function plays an important role with respect to the optimization of resources, participate in the reliability and security of information and ensure compliance with applicable laws and regulations in its area of expertise. The following departments play key roles in Internal Control and Risk management.

Trade Compliance - The Trade Compliance department is set up to ensure that all levels of the Group are aware of and take the necessary steps to comply with laws and regulations regarding the export, re-export, import and transit of controlled goods and technologies. It plays a consulting role to operations and assists operations with import & export licenses and documentation.

Information Security - The Group's Information Security department puts in place a global framework to protect information. It sets standards and implements process to assure the availability, integrity, security and reliability of information systems in the Group.

The Information Security Department carries out its mission according to the directives established by the E-Com in the *Information Security Policy.*

Global Sourcing and Supply Chain Department - The Global Sourcing and Supply Chain department oversees the purchasing of all equipment, parts, supplies and services of the Group. It oversees quality and delivery of equipment, supplies and services in close cooperation with the Business Lines and Functions, it manages and develops the Group's relationships with suppliers to optimize their performance and the Group's total cost of ownership while maintaining standards of quality and delivery.

Global Sourcing and Supply Chain oversees key processes including the creation of a new supplier, approved supplier list, sourcing and validation of supplier bids and contracts.

The Global Sourcing and Supply Chain Department carries out its mission under the *Purchasing Code of Conduct* and the *Selling to Sercel* directives. The *Purchasing Code of Conduct* is always included in the Group documentation for tender offers.

Quality Department - The Group's Quality Department follows on a continuous basis the management of key processes, thereby identifying and structuring the mitigation of process risk. It supports the Group's Business Lines in this respect and helps reducing or eliminating the cost of non-quality, thus playing a critical role in the optimization of resources and operations.

The Quality Department carries out its mission according to the directives of the E-Com in the *Quality Policy* and in the *2015 Quality Objectives.*

Internal Audit:

The Group Internal Audit has direct access to the E-Com and to the Board's Audit Committee; it assists them in carrying out their oversight responsibilities on the effectiveness of the Group's risk management, internal control and enterprise governance. As of the date of this report, the Corporate Internal Audit function was staffed with four auditors, reporting to the SVP Internal Audit.

Internal Audit evaluates internal controls on the basis of the COSO 2013 framework and tools and in compliance with the code of conduct of the Institute of Internal Auditors ("IIA"). Since May 2012, Internal Audit has a charter which governs its operating procedures. This charter has been approved by the audit committee. Finally, in June 2013, Internal Audit was certified by IFACI/IIA which was confirmed in 2014 and 2015 and renewed in 2016.

Internal Audit planning are now planned on the basis of the group risk analysis performed by Risk management. The Group's significant entities are reviewed every year. Priorities are established based on current operations and the supposed level of risk. The annual internal audit plan is defined by the Corporate Internal Audit department, approved by the E-Com and presented to the Audit Committee.

Internal Audit conducts financial and accounting audits as well as operational and compliance audits. Recommendations issued as a result of the audits are approved by the E-Com and the associated action plans are carried out by line management and monitored by Internal Audit until all open issues have been resolved. Also included in the scope of Internal Audit is the performance of conformity tests of internal controls as they relate to the Sarbanes-Oxley Act requirements.

Over the past three years, the units audited have accounted for approximately 80% of the average revenues of the Group. In 2016, the internal audit activities, excluding those linked to Sarbanes-Oxley, were mostly dedicated to the major scope of activities of the Group, in particular GGR and Acquisition Business Lines entities and processes considered as being a priority based on the assessments of risks exposure especially for the Acquisition Business Lines and the support functions. The annual budget of Internal Audit is slightly less than 0.1% of the Group revenues which is in compliance with the standards existing for companies in the same industrial sector.

Risk Management, Health, Safety & Environment ("HSE") and Sustainable Development:

The HSE management system provides governance, develops process and procedures in the areas of employee and stakeholder health, safety, environment and the security of our operations. The HSE organization provides oversight in these areas across all of the Group's operations.

The HSE organization also addresses the Group's reputation risk through its Sustainable Development ("SD") programs.

The HSE & SD Group Department carries out its missions according to directives established by the E-Com in the Quality, *Health, Safety and Environment Policy, as well as* in specific policies addressing *Health and Wellness, Sustainable Development*, *Environment,* and *Security*. Its objectives are set over a three-year period and are cascaded within the Business Lines which adapt such objectives to their business needs and specify tem so that each business line has clear and measurable objectives.

The missions of the Department in terms of Group risk management are described below under Risk Management.

The Global Operational Excellence reports to the Chief Executive Officer and functionally, respectively, to (i) the Corporate Officer in charge of Technology and Global Operational Excellence and (ii) the Corporate Officer in charge of Risk Management, HSE and Sustainable Development.

✓ **General Secretary:**

The General Secretary plays a key role in terms of Group Governance, compliance and risk management.

Group Governance:

The General Secretary assists General Management with the definition and implementation of corporate governance principles based on the best practices of the financial markets where the Company is listed. It represents the Group within organizations such as AFEP or IFA which are specialized in the field of governance.

The General Secretary ensures the legal management of the top holding Company of the Group, listed on Euronext and the New York Stock Exchange as well as the other Group legal entities. It acts as Corporate Secretary for the Board of Directors.

The General Secretary oversees all directorships within the Company and its subsidiaries. It drafts Group instructions relating to the management of legal entities and branches of the Group.

Finally, the General Secretary prepares the agenda of each meeting of the C-Com and E-Com and their minutes.

Compliance and risk management:

In order to fulfill its missions, the General Secretary is organized around a corporate legal department, a compliance department and a legal department in charge of operation.

- The Corporate legal department has oversight of Group compliance with (i) securities laws and regulations and in particular on external reporting including filings and relations with market authorities, (ii) financial covenants and (iii) local laws and regulations in particular with respect to prevention of corruption. It also provides support for mergers and acquisitions, financing, and corporate law. It provides functional management of the trademark portfolio of the Group. It drafts the general instruction on delegation of authority and delegation of powers in the Company, oversees their implementation, assuring their adaptation in the event of changes in the organization.

- Through the Compliance Officer, the General Secretary is in charge of the management of our anti-corruption program ("Compliance Program") in all countries where the Company operates, for all our Business Lines. The Compliance Officer issues policies and procedures in term of Compliance, manage our intermediaries network and joint ventures from a Compliance perspective, ensuring they are compliant with applicable anti-corruption rules and regulations (FCPA, UK Bribery Act, OCDE regulation). The Compliance Officer issues standard Compliance provisions for contracts. The compliance Officer is a member and secretary of the Ethics committee.

- The Legal department in charge of operations plays an active role in operations providing support to the Business Lines and Sales & Marketing & Geomarkets in their day to day business to ensure:
  - Timely delivery of business oriented solutions to operations;
  - Prevention and management of legal risks;
  - Compliance with laws and regulations and Company policies and instructions.

It drives the Company's bid and contract review process assuring that major risks related to bids and contracts, with both clients and sub-contractors, contain terms which protect the Company.

This function reports to the Corporate Officer in charge of Strategy, General Secretary and Investors Relations.

✓ **Sales & Marketing & Geomarkets Function:**

The major objectives of the Sales & Marketing & Geomarkets Function are the following:

- Support the BLs commercial strategies and share regional sales objectives;
- Represent and promote the full company portfolio of businesses to clients;
- Manage client relations at global and local levels such that they result in sales opportunities through "privileged" client communications and customer intimacy;
- Collaborate with Business Lines and Group Communication to ensure that a robust and consistent Marketing Plan is deployed;
- Manage the commercial consultants network;

- Gather, manage and report to the Co-Com on regional targets, actions and results.

The Executive Vice-President in charge of this Function is assisted by:

- Geomarket Directors, in charge of a given country or Group of countries, and their associated teams of Key Area Managers overlooking sub-regions and local accounts,
- Key Account Managers, in charge of global clients with international footprint,
- The Technical Marketing team, responsible for creating and delivering technology-oriented material in support of external engagements with clients,
- The Commercial Consultant manager, in charge of the supervision of the network of commercial consultants

✓ **Technology Function:**

The major objectives of the Technology Function are the following:

- Develop a culture of technical excellence;
- Deliver the technology plan aligned with the business strategy;
- Provide geoscience & engineering expertise;
- Develop R&D talent;
- Provide the environment for innovation in order to identify & develop breakthrough concepts;
- Incubate breakthrough concepts on behalf of the BLs;
- Manage Intellectual Property and ensure that it is respected worldwide;
- Coordinate R&D between BLs;
- Contribute to promote and to communicate our technology.

The Executive Vice-President in charge of the Technology Function is a member of the E-com and relies on the following organization:

- The CTO Core Team and the R&D BLs Heads (reporting on a dotted line to the EVP Technology) constitute the backbone of the Technology Function,
- An Internal CTO R&D work force, incubating on behalf of the BLs advanced and long term impact projects,
- Dedicated experts supporting each activities,
- An IP management team with correspondents in BLs.

The Technology function reports to the Corporate Officer in charge of Technology and Global Operational Excellence.

The Group Departments:

✓ **Investor Relations:**

This Department is mainly in charge of the relations and communication of the Group with the financial community, i.e. Group shareholders, Group lenders and generally speaking investors. Its missions include particularly the preparation of press releases related to the annual, semi-annual and quarterly financial results, the organization of roadshows and participation to investor conferences.

This Department reports to the Corporate Officer in charge of Strategy, General Secretary and Investor relations.

✓ **Group Communication:**

This Department oversees the Company's communication processes and sponsorship. It develops mechanisms to strengthen two way internal communication. Group Communication is in charge of the Group internal communication, and in this scope manages the Group intranet. The Department regularly measures the quality of internal communications through a global survey of the Group's staff. This Department also oversees the Group's external communications, in particular commercial press releases, to assure their accurate and timely communication.

Group Communications carries out its mission according to the directives established by the E-Com in the *Media Release and Financial Communications Policy, the News Release Procedure* and the *Press Release Procedure.*

Group communication reports to the Chief Executive Officer.

III.2. Risk Management

The Group has put in place organization, process and procedure as well as working practices to manage risks across the organization. The management of risk is fully integrated in the decision making process in the Group. The Group identifies and evaluates the principal risks that can impact the Group's operational and financial objectives or compromise compliance with laws and regulations. The Group manages risk through robust management systems, departments focused on specific risk areas and through cross Group processes.

The Group Department Risk Management, Health, Safety, Environment and Sustainable Development has established a risk management framework for the Group; it animates the implementation of this framework. Through the framework it provides a risk management methodology and identifies high level risks in the Group and defines, with Business Lines, Functions and Group Departments, control and mitigation measures to manage these risks. It works through the Functions, the Group Departments and the Business Lines, as described above, on the implementation of risk controls. It monitors the implementation and effectiveness of controls and provides to the E-Com a view of the high level risks faced by the Group.

The Group has implemented risk management flows throughout the organization to identify, assess and control risks:

- The identification of events that can have an impact on the Group comprises a combination of techniques and supporting tools including event inventories, internal analyses, risk interviews, process flow analysis, leading event indicators and loss event data methodologies.

- Risk assessments are conducted to determine the extent to which potential events may have an impact on the Croup. Risks are evaluated in terms of impact and probability. In assessing risks, managers consider impacts on people, environment, financial situation, accounts, strategic and other business objectives, compliance with laws and regulations and the Group's reputation. The Group's risk assessment methodology comprises a combination of qualitative and quantitative techniques.

- Risks are controlled through robust processes allowing their avoidance, reduction, sharing or acceptance. The Group employs comprehensive processes to reduce risk probability or risk severity or both. Control activities flow from policies and procedures established to manage risks. Control activities occur throughout the organization at all levels and in all functions. Group policies, objectives, management instructions and procedures are available to all personnel in the *Document Management System (DMS)* available on the intranet.

The Group's Insurance department reports to the Group Department Risk management, Health, Safety, Environment and Sustainable Development to assure an integrated approach to risk in the Group. A robust Insurance program has been implemented at the Group level to share or transfer risk. Each high level risk is evaluated to determine whether the risk can be transferred through insurance policies within a practical cost structure.

Risk Mapping

One of the products of the Group's risk management program is the Risk Map. The Risk Map is a management tool which provides a shared view in the Group of the risks that have the potential of material impact on the Group. The risks in the Risk Map are organized by risk family: Operational risks, Technology risks, Accounting and Financial risks, HR risks and Communications risks.

The Risk Map is presented to both the E-Com and to the Audit Committee on an annual basis.

Risk Monitoring and Coordination Committee

The Group has set up a Risk Monitoring and Coordination Committee in charge of following up the efficiency of the internal control and risk management systems. Its members are the SVP Internal Audit, the Chief Accounting Officer and the SVP Enterprise Risk Management. The Internal Controls & Compliance manager acts as secretary of the Committee. The Committee meets on a monthly basis. The main assignments of the Committee are the following:

- Information sharing on events and facts relating to the quality of risk control and internal control;
- Follow-up the reported risks and most particularly internal control incidents which are classified by the Committee;
- Recommendation and coordination of the mitigation or improvement actions taken in these fields;
- Ensure consistency between our risk assessment and the assessment made by the auditors.

Financial risks related to the effects of climate change and measures adopted by the company to reduce them, by implementing a low-carbon strategy in every component of its activities

The Task Force on Climate-Related Disclosures (TCFD) has been commissioned by the Financial Stability Board to develop a standard methodology to report on climate-related financial risks. CGG participated throughout 2016 to TCFD consultation meetings, which resulted in recommendations published December 14, 2016. CGG executive management discussed TCFD recommendations with the Board of Directors' HSE & Sustainable Development Committee. The analysis of physical and transition risks linked to the effects of climate change at short, medium and long-term is underway. Various scenarii of climate change intensity will be tested in this endeavour.

With regard to the company's low-carbon strategy, it should be noted that CGG has been transforming its business model since 2013. The company's geosciences profile has been sharpened while seismic data acquisition activities have been significantly reduced. This resulted in halving the company's greenhouse gas emissions in the course of five years. Furthermore, executive management is encouraging Business Lines to apply their competences beyond the mere oil and gas sector.

III.3. Internal Control

The Group has an internal control department reporting to the Chief Accounting Officer whose role is to support the organization in implementing and maintaining effective processes, and to ensure that that controls effectively mitigate the risks identified. It also maintains our internal control framework and coordinates the evaluation system of internal control over financial reporting (section 404 of the Sarbanes-Oxley Act).

The Group has an Internal Control guide based on the COSO 2013 internal control framework which provides Group staff with a single source of internal control guidance. This guide was rolled-out across all sites, Business Lines and support functions and aims at improving the Group risks management and oversight.

III.4. Financial Security Management

Specific processes and controls have been put in place by the Group to assure that financial reporting is reliable and pertinent.

Financial information

- Key processes such as the preparation of consolidated financial statements, documents for the Board of Directors and the Audit Committee, preparation of budgets, etc., are formally described.

- Instructions of the E-Com with respect to Financial Security principles and objectives are regularly renewed to remind all financial and operational managers of each unit, the importance of internal control and the necessity to constantly see to its implementation, based on annual objectives and training at demand.

- The Group has an accounting manual which sets forth its accounting practices, instructions and reporting rules. The accounting manual applies to all Group entities and is designed to ensure that the accounting rules are applied across the Group in a reliable and homogeneous way. It details procedures for closing the books, preparation of the income statement, balance sheet, cash flow statement as well as the consolidation process. Additionally, it outlines the principles for producing the notes to the consolidated financial statements.

- To limit risks of fraud, processes of segregation of duties are in place from approval of the orders to payment of the vendors and suppliers.

- All Group entities process consolidated accounts in the format chosen by the Group using a standardized package. All reclassifications from the corporate accounts to the consolidated accounts are documented using a specific standard format.

- Intercompany transactions are carried out in various areas (different services, geophysical equipment sales, software licenses). The corresponding fees vary according to the nature of the transaction and in compliance with market conditions and transfer pricing policy.

- Management software packages implemented within the Company in finance, logistics and procurement are critical organizational components of the internal control system as they define in detail the processes to be applied in each of these areas.

Information technology infrastructure and information systems security

- Access to the internal networks of the Group's companies and information systems are regulated.

- The networks are protected by firewalls and antivirus systems. External access is possible through secure and encrypted connections.

- Users are duly authenticated before being granted access to the system.

- Data backup, archiving and recovery systems have been put into place. Procedures are created, modified and updated by competent personnel and approved by the appropriate management. Once a year, an internal audit is carried out to test the effectiveness of such procedures, including some intrusion tests with assistance of external IT experts.

Control of the disclosure of information externally

- The Group has a procedure which outlines rules for preparing, validating and approving press releases.

- The Group follows a pre-determined process for the preparation and distribution of its regulatory documents.

Disclosure Committee

Within the framework of the implementation of the Sarbanes-Oxley Act, the Chief Executive Officer and Chief Financial Officer of the Group created a Disclosure Committee in February 2003 to assure they will be able to properly issue the certificate provided for by section 302 of the Sarbanes-Oxley Act which must accompany annual financial statements filed by the Company with the Securities and Exchange Commission.

The principle functions of this Committee are to:

- analyze the importance of information and determine the appropriateness of a disclosure, and if so according to what schedule, and to this purpose:

  - review all information to be published and their draft wording,
  - oversee disclosure procedures and coordinate disclosures to external parties (shareholders, market authorities, investors, the press etc.).

- provide guidelines for internal control procedures to ensure the reporting of material information to be disclosed within the framework of quarterly, semiannual or annual communications to market authorities or destined for financial markets,

- inform the Chief Executive Officer and the Group Chief Financial Officer of any changes, deficiencies or material weaknesses pointed out by the Committee in the process of the reporting of information.

In 2016, the Committee was chaired by the Senior Vice President, Group Chief Accounting Officer and composed as follows:

- Chief Operating Officer, Equipment & Acquisition business lines
- Chief Operating Officer, GGR Business Lines
- Financial Controller, Equipment Business Line
- Financial Controller, Marine & Acquisition Business Lines
- Financial Controller, GGR Business Lines
- Executive Vice President, GOE/Internal Audit/Risk Management & HSE/SD
- Senior Vice President, Investor Relations
- Senior Vice President, Group Tax Director
- Senior Vice President, Group Treasurer
- Executive Vice President, General Secretary and Group General Counsel
- Senior Vice President, Group Communication

The Committee meets quarterly before periodic disclosures of the Company are published. A self-evaluation is performed each year and is adjusted for ongoing improvement of the Committee functioning.

Delegation of powers and areas of responsibility

Delegations of Power are authorized by the Chief Executive Officer and the Senior Executive Vice Presidents and cascaded to successive levels of management through a formal, documented process that clarifies the responsibilities related to the delegation. The approval of offers and contracts as well as capital expenses and operating expenses are controlled through these delegations. Approval levels for investments, leases, sale-and-lease back transactions and other expenses are also defined.

Delegations of Authority are carried out according to directives established by the E-Com in the *General Instruction on Delegation of Authority and Delegation of Powers.*

The process for preparing offers, and controlling and approving contracts signed between the Group's legal entities on the one hand, and its customers, partners and subcontractors on the other hand, is managed through the bid and tender review process. The process includes authorization rules to be applied with respect to contractual commitments and in particular the limits where a prior review and authorization by the C-Com is required. This review process cuts across all Functions that contribute to the control of risks in bid and contract review including the Legal Department, the Tax department, Treasury, and the HSE Department.

III.4. Control activities

Processes implemented by the Group to identify necessary control procedures are based on risk assessments and on the necessary processes required to fulfill the Group's objectives.

Internal control procedures

Control procedures of the Group are implemented according to the hierarchical levels of personnel involved and the principles of materiality and the separation of functions. Control procedures are implemented in light of the identification of risks.

System of evaluation of Internal Control

Internal Control in the Group is evaluated through self-assessment tools and through internal audits.

Financial security annual objectives are set requiring self-assessments of all active Company entities using the *Internal Control Assessment Form (ICAF)*. This questionnaire includes approximately 40 prerequisites defined for operating Business Lines and support Functions. On an annual basis, the results of these reviews are consolidated, assessed and distributed to relevant managers; through these assessments, Internal Control improvement areas are identified.

Internal Control is continuously evaluated through a program of internal audits. In 2016, seven audits and five integrated audits were conducted by the Group Internal Audit Department in addition to SOX testing, the five integrated audits focused on the HR, tax and R&D processes in the main entities of the Group (subject to SOX) ; four were operational or compliance audits and three general audits (financial and operational and performance). Audit findings and recommendations are in each case reviewed with relevant managers and are presented to the executive management of the Business Line if necessary, and action plans are agreed to assure continuous improvement of internal control and risks management. Audit reports are submitted to the C-Com and action plans to the E-Com whose members receive on a monthly basis, the Internal Audit dashboard to monitor progress on improvement actions.

Areas of improvement from ICAF assessments and from internal audits form the base of annual strategic plans (organizational changes) and annual Financial Security objectives.

Furthermore, hub-level controllers were put in place to assure better control of far reaching geographies.

Financial and accounting controls

Internal control procedures in force in the Group are designed principally to ensure that accounting, financial and management information communicated to corporate bodies of the Group provide a fair presentation of the activity and situation of the Group.

- The financial statements of all the Group's subsidiaries are reviewed by the Finance Function. Physical inventories are carried out on a regular basis at each site, comparing the balance sheet values of inventories with those of the physical inventories. Variances noted are then corrected.
- Access to the accounting information systems is formally restricted in accordance with the function and responsibilities of each user.
- Current management information systems make it possible to record transactions in a complete and exact manner, to trace them and regularly back them up.
- All Intercompany transactions are documented and reconciled on given dates according to the transactions.
- The Company monitors its off-balance sheet commitments.
- Comparisons and reconciliations are performed at various levels, particularly between reporting and consolidation. The consolidated financial statements are reviewed by the Chief Financial Officer at corporate level and the Chief Financial Officers of the Business Lines.

In accordance with requirements of the Sarbanes-Oxley Act, the Group has a system to evaluate the effectiveness of internal controls over financial reporting.

The E-Com fully supports this project as a contribution to a proper business control, which is also in line with the implementation of values and the application of the financial security program with our personnel.

III.5. Information and Disclosure

The Group's ability to meet its objectives depends on effective dissemination of information at all levels of the Group.

Quality standards, security requirements or legal and professional obligations demand that the procedures be documented and accessible. The Group encourages the sharing of knowledge and best practices. An intranet site provides all personnel with access to charters, Group policies, annual objectives, general instructions, procedures, standards and other documents on which the Group's Management System is based. Generally, the internet site of the Group allows the achievement of a better communication and cooperation between the Group entities and the operating and support functions.

The Group organizes, generally on an annual basis, seminars for the C-Com, E-Com and for certain senior Management and key managers around the globe.

The Group has implemented a weekly, monthly and quarterly reporting system according to the hierarchical levels and relevance, to obtain and exchange information necessary to carry out, manage and control operations. The data distributed concerns operations, finance, or legal and regulatory compliance issues. It includes not only data produced by the Group but also data related to the external environment.

Senior management evaluates the performance of the Group on the basis of both internal and external information.

III.6. Monitoring and Management Review

The Group's business environment is by nature continuously changing and evolving. As a result, the internal control system is continuously adapted taking into account the environmental conditions and past experience.

Operations are managed and evaluated against performance criteria on a day to day basis and monitored by successive levels of management in the organization, finally being reviewed by the Executive Committee. Management carries out periodic evaluations, taking into account the nature and importance of any changes which may have occurred.

The EVP Global Operational Excellence, Internal Audit and Risk Management/HSE/SD, the Chief Accounting Officer, the Compliance Officer and the Senior Vice President Risk Management, HSE and Sustainable Development meet every month for information and mutual coordination within the Risk Monitoring and Coordination Committee.

The monitoring of risks is built into our business review processes at the project level, at the Business Line level and at the E-Com level. Key indicators have been identified to signal risk environment changes and adverse trends. These are reviewed in management meetings at each level. Transverse Functions and Group Departments assist the Business Lines in monitoring these indicators and when necessary focus attention on specific Group risks.

The Group has implemented a global incident monitoring system for round the clock alerts; actual incidents and High Potential Incidents (HPIs) anywhere in our operations must be reported within 24 hours to the relevant management level through our internet based system PRISM.

The E-Com regularly reviews the Group's key risks and the measures put in place to control these risks. The E-Com reviews the Group's Risk Map annually as well as the Insurance policies put in place to transfer the Group's risks. The E-Com establishes a schedule of key risks which it reviews in more depth during the year.

The Board, through its Committees regularly reviews key risks faced by the Group. The Board receives annually a mapping of the key risks facing the Group and is informed on the organization of the Group's risk management program as well as on the key risk controls put in place. Through the Audit Committee, the HSE and sustainable development Committee, the Technology Committee, the Appointment and Remuneration Committee and the Strategic Committee, specific risks in the domain of each Committee are reviewed.

III.7. Reasonable Assurance

Every system of internal control, however well-designed and effective, has inherent limitations. Notably, there is an inherent risk that controls may be circumvented or bypassed. This means that the internal control system can offer only a reasonable assurance as to the reliability and sincerity of financial statements. Furthermore, the effectiveness of internal control procedures may vary over time, in response to new circumstances.

In order to evaluate the effectiveness of internal control procedures on a regular and formal basis and beyond the related actions undertaken by the internal audit management, the Group has put in place a tool for internal control self-evaluation for all units of the Group. At the Corporate level a compliance officer has been appointed thus showing the Group commitment to good corporate governance rules.

12. REPORT ON THE PRINCIPLES AND CRITERIA FOR DETERMINATION, ALLOCATION AND DISTRIBUTION OF THE FIXED, VARIABLE AND EXCEPTIONAL ELEMENTS OF THE TOTAL REMUNERATION AND THE BENEFITS OF ALL KINDS THAT MAY BE GRANTED TO THE EXECUTIVE OFFICERS

(submitted to the Shareholders' approval pursuant to article L225-37-2 of the French Commercial Code)

This section is established in accordance with new Article L.225-37-2 of the French Commercial Code and present the principles of the compensation policy of the Senior Officers which will be submitted to the vote of the Ordinary General Meeting convened to approve the 2016 financial statements.

As of the date of this report, the Senior Executive Officers of the Company are Mr. Remi Dorval as Chairman of the Board of Directors and Mr. Jean-Georges Malcor as Chief Executive Officer.

For the purpose of this report and according to the recommendations of the Corporate Governance Code of Listed Corporations (the "AFEP-MEDEF Code"), the term "Senior Executive Officer" refers to the Chief Executive Officer and the Corporate Officers, and the term "Senior Non Executive Officer" refers to the Chairman of the Board of Directors".

12.1. PRINCIPLES OF THE COMPENSATION POLICY OF THE SENIOR OFFICERS

The compensation policy of the Senior Officers is determined by the Board of Directors, upon proposal from the Appointment-Remuneration Committee. This policy is regularly reviewed and discussed by the Board of Directors.

The following principles are applicable to the compensation of the Senior Executive Officers and are set up according to the provisions of the AFEP-MEDEF Code, which are the following:

- **Principle of balance:** it is ensured that there is an appropriate balance between the several remuneration components and no part of such components is disproportionate.
- **Principle of comparability:** the positioning of the compensation of the Senior Executive Officers is regularly reviewed against the Company's sector and comparable compensation markets on the basis of studies carried out by specialized external firms. As a result, the Group practices are compliant and competitive with market practices in order to ensure the retention of the key Executive Officers.
- **Principle of interest alignment and link with performance:** Generally, the Board of Directors and the Appointment-Remuneration Committee pay particular attention to ensure that the compensation policy of the Senior Executive Officers applied is linked to the performance of the Company and focused on creating long-term value (quantitative criteria) and the achievement of the individual objectives (qualitative criteria). As a result, the purpose of the compensation policy is to encourage the achievement of ambitious objectives through the setting of stringent strategic performance criteria whether short, medium or long-term.

The overall compensation policy of the Senior Executive Officers focuses on the variable part of their compensation at risk for the beneficiary. Therefore, the compensation structure includes a significant variable part in order to align more directly the compensation of the Executive Officers with the Group operational strategy and the interests of the shareholders, while rewarding performance. The long term incentives represent also a significant part in order to link the remuneration of the Senior Executive Officers with the shareholders' interests.

It is indeed critical in the cyclical industry of the Group to attract, motivate and retain talent and provide a high level of competitiveness of the compensation packages, in general.

12.2. COMPONENTS OF THE COMPENSATION OF THE CHAIRMAN OF THE BOARD OF DIRECTORS

The Chairman of the Board of Directors receives:

- Fixed remuneration
- Director's fees

No other form of remuneration is paid to the Chairman of the Board of Directors. In particular, no annual or multi-annual variable remuneration, no stock-options is paid or allocated to him.

Finally, the Chairman of the Board of Directors benefits from the general benefits plan applicable to all Company employees and from a company car. The Chairman of the Board of Directors does not benefit from any supplementary pension plan, non-competition compensation, contractual departure indemnity.

For fiscal year 2017, upon the recommendation of the Appointment-Remuneration Committee, during a meeting held on April 6, 2017, the Board of Directors resolved that Mr. Dorval would benefit, as Chairman of the Board of Directors, from a fixed remuneration set at €115,000 per year, to which the actual amount borne by the Company with respect to his current company car will be deducted. This benefit in kind (company car) amounts to €3,360. The fixed amount of Directors' fees for the 2017 fiscal year is set at €57,200, subject to the approval from the General Meeting to be convened to approve the 2016 financial statements.

12.3. COMPONENTS OF THE COMPENSATION OF THE SENIOR EXECUTIVE OFFICERS

The purpose of the compensation policy is to reward performance measured in the short, medium or long-term, it being specified that the compensation components pursue various and consistent objectives.

12.3.1. Fixed remuneration

Pursuant to the AFEP-MEDEF Code, the compensation of the Senior Executive Officers is reviewed annually by the Appointment-Remuneration Committee. However, the amount is not changed annually but may be reviewed after a relatively long period of time (every two or three years).

Any increase of the compensation is justified and explained. Any significant increase decided by the Board of Directors, upon proposal from the Appointment-Remuneration Committee, must be explained and must take into account market practices.

The fixed compensation is paid monthly.

On April 6, 2017, the Board of Directors resolved that Mr. Jean-Georges Malcor's fixed compensation would remain unchanged for 2017.

12.3.2. Annual variable remuneration: Global Performance Incentive Plan (GPIP)

All the Group's employees benefit from an annual variable remuneration. The Board of Directors has decided to apply the Global Performance Incentive Plan (GPIP) to the Senior Executive Officers.

The Board of Directors and the Appointment-Remuneration Committee pay particular attention to ensure that the compensation policy of the Senior Executive Officers is linked to the performance of the Company.

As a result, the cyclical business and the highly volatile market in which the Company operates, are reflected in the short term variable compensation and represent a significant part of their overall remuneration.

Pursuant to the AFEP-MEDEF Code, the criteria used for determining the annual variable compensation are reviewed annually by the Board of Directors, without being necessarily changed in order to ensure that such criteria comply with the Company's short term strategy.

The annual variable remuneration of the Senior Executive Officers is composed of the two parts:

- The first one is based on the quantitative criteria that states for 2/3 of the target variable compensation
- The second one is based on the qualitative criteria that states for 1/3 of the target variable compensation.

The quantitative criteria (financial objectives) are precisely defined by the Board of Directors pursuant to the Group budget objectives. In particular and not exclusively, they may relate to: (i) free cash flow, (ii) Group external revenues, (iii) Group EBIT, (iiii) EBITDA. The Board of Directors decides the weighting assigned to each performance criteria according to the context and their significance for the Group.

The qualitative criteria (individual objectives) are precisely defined by the Board of Directors pursuant to the annual priorities for the Group. In particular and not exclusively, they may relate to: (i) the Group governance, (ii) relations with major customers, relations with shareholders and financial community, (iii) promotion and development in the industry, (iiii) Group operational performance, (iiiii) human resources. The Board of Directors decides the weighting assigned to the performance of each criteria according to the context and their significance for the Group.

The amount of the target annual variable compensation (when 100 % of the quantitative and qualitative criteria are achieved) of the Senior Executive Officers is expressed as a percentage of the fixed compensation. The target amount of the annual variable compensation of the Chief Executive Officer is set at 100 percent of his fixed compensation.

Finally, in order to incentivize for overachievement, the short term variable compensation plan allows payment of amounts exceeding the target compensation:

- the quantitative criteria (financial objectives) for a maximum of 133.3% of the fixed salary, and
- the qualitative criteria (individual objectives) for a maximum of 66.6% of the fixed salary.

The variable part of the compensation for a given fiscal year is determined and paid during the first semester of the following fiscal year.

The level of achievement for each criteria is precisely determined by the Board of Directors but is not disclosed for confidentiality reasons.

With respect to Jean-Georges Malcor, Chief Executive Officer, the performance criteria set by the Board of Directors of March 23, 2017 and their respective weighting are as follows:

- Group free cash flow (25% weighting),
- Group external revenues (25% weighting),
- Group EBITDAS minus tangible and intangible investments made during the fiscal year (25% weighting), and
- Group operating income (25% weighting).

The target objectives are not disclosed for confidentiality reasons.

The indicators are set annually by the Board of Directors for the Senior Executive Officers and are cascaded down to all Group employees in order to ensure a consistency between the amounts of variable compensation paid to the Senior Executive Officers, the executive managers and more broadly, the Group employees.

12.3.3. Multi-annual variable remuneration

Since 2013, the Board of Directors, upon proposal from the Appointment-Remuneration Committee, has implemented a multi-annual bonus system in the form of performance units for the C-COM members (including the Senior Executive Officers), executive management and employees which have contributed to the Group performance or presented a strong potential of evolution in the Group.

This system is based on a two-fold objective:

- Implement a globally harmonized remuneration mechanism consistent with the growing internalization of the 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 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 performance conditions.

The performance conditions are based on pre-established and precise quantitative criteria, which are not disclosed for confidentiality reasons. A weighting is assigned to each of those conditions depending on their significance. Those performance conditions are determined annually by the Board of Directors.

Performance conditions of such performance units plans have been implemented since 2013 and are based on the achievement of Group objectives related to the return on capital employed and balance sheet structure along with achievement of the business segments' financial objectives aligned with the Group strategic orientations over a 3-year period.

12.3.4. Stock-options of the Senior Executive Officers

Upon proposal from the Appointment-Remuneration Committee and authorisation of the General Meeting, the Board of Directors regularly allocates stock options to its Senior Executive Officers.

The purpose of this mechanism is in particular to retain the Senior Executive Officers and to promote the alignment of their interest with the Group social's interest and the shareholders' interest. Such plans are not reserved to Senior Executive Officers and may benefit to employees who have contributed to performance or present a strong potential of evolution in the Group. In principle, the grants are carried out annually during the first semester of the following fiscal year.

No discount is applied on allocation date and the vesting of the options is closely linked to the fulfilment of performance conditions

The demanding performance conditions set by the Board of Directors will have to be fulfilled over several consecutive years.

12.3.5. Director fees

The Senior Executive Officers that would also be Director do not receive any Director fees.

12.3.6. Exceptional compensation

No exceptional compensation can be allocated to Senior Executive Officers by the Board of Directors unless it is expressly justified by an exceptional situation.

12.3.7. Supplemental pension plans

i. Defined benefit scheme (Article 39 of the French Tax Code)

In order to allow the executive managers of the Group to complete the level of annuity provided by the French mandatory Schemes, a defined benefit pension plan has been implemented. It is a collective and random pension plan governed by Article L.137-11 of the French Social Security Code. It allows the life annuity payment and the reversion annuity payment to the spouse or ex-spouse, in the event of death.

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 benefit from this supplemental pension plan since December 8, 2004. This plan was closed to new joiners on July 1, 2014. The Chief Executive Officer benefits from this plan.

In accordance with the recommendations of the AFEP-MEDEF Code, the chosen category is broader than the Executive Officers category.

It is an additive defined benefit plan with a cap. Accruals are acquired per year of service, with a double limit:

- potential rights are applied in addition to the mandatory basic and supplemental pension schemes but cannot, however, procure in aggregate for all schemes, a replacement rate exceeding 50%;
- potential rights are calculated on the basis of seniority with an upper limit of 20 years. They are accrued up to:
    - 1.5% of the remuneration used as reference, per seniority year within the company and up to 20 years, for the portion of remuneration below 20 times the French Social security upper limit,
    - 1% of the remuneration used as reference, per seniority year within the company and up to 20 years, for the portion of remuneration above 20 times the French Social security upper limit.

The remuneration used as reference is composed of the average fixed remuneration received by the beneficiary over the last three years of activity, increased by the short-term variable remuneration based on annual performance, pursuant to current policies in place within the Company. Considering the high cyclicity of the seismic market, which may result in a strong volatility in the variable remuneration, the average used is composed of the three highest payments over the past seven years preceding the date of retirement.

Further, to participate in the plan, the Beneficiaries must comply with the main following cumulative conditions:

- have liquidated their social security pension and all possible other rights to pensions;
- have at least five 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.

Nonetheless, it is specified that under specific cases (such as death/incapacity or dismissal after 55 years old without carrying any professional activity), the benefit of the scheme is maintained in accordance with the circular n°105/2004 of the social security direction dated March 8, 2014.

A provision is recorded the balance sheet during the constitution period (as long as the beneficiary is active), and once the beneficiary liquidates his pension, the constitutive capital is transferred to an insurer and is completely outsourced.

This scheme is financed by CGG, which pays contributions to a third-party insurer, entrusted with the management of the pension scheme.

Various studies are currently carried out with respect to the possible evolution of this scheme that may lead to a change for a defined contribution pension plan, subject to performance conditions. In the event of a renewal of the Chief Executive Officer corporate office without changing the current pension plan, performance conditions will be set according to Article 225-42-1 of the French Commercial Code.

ii. Defined contribution scheme (Article 83 of the French Tax Code)

The Senior Executive Officers benefit from the defined contribution scheme applicable to executive managers of the Group since January 1, 2005.

The annuities served under this additional scheme are deducted from the amount of annuities to be paid under the defined benefit pension scheme described above. It is capped as follows:

- "Tranche A" of the Social Security: 0.5% of the employee social security contribution and 1% of the employer social security contribution
- "Tranche B" of the Social Security: 2% of the employee social security contribution and 3% of the employer social security contribution
- "Tranche C" of the Social Security: 3.5% of the employee social security contribution and 5% of the employer social security contribution

The contribution base is assessed on the gross annual remuneration of a given year exclusively, base salary, annual variable remuneration and benefit in kind (company car). By principle, this base excludes any other component of the remuneration.

12.3.8. Individual insurance covering loss of employment

As the Corporate Executive officer is not subject to the statutory legislation relating to individual insurance coverage for loss of employment, the Board of Directors authorize as a result, in accordance with procedures applicable to related party agreements and provided for by Article L.225-38 et seq. of the French Commercial Code, the conclusion of an individual specific insurance covering loss of employment in favour of the Chief Executive Officer.

Since July 1, 2010, Mr. Jean-Georges Malcor benefits from an individual insurance policy covering loss of employment with GSC GAN. This insurance provides for a payment of daily allowances capped at 55 % of the "tranche C" of the Social Security over twelve months.

12.3.9. Other collective benefits

i. General benefits plan

The Senior Executive Officers benefit from the general benefits plan applicable to all employees of the CGG SA.

The Board of Directors authorizes, in accordance with procedures applicable to related party agreements and provided for by Article L.225-38 et seq. of the French Commercial Code, the extension to the Chairman of the Board of Directors and the Chief Executive Officer of the benefit of the general benefits plan applicable to all employees of the CGG SA.

ii. Benefits in kind

The Senior Executive Officers benefit from a company car.

12.3.10. Severance pay

The Senior Executive Officers may benefit from a contractual indemnity in case of departure from the Group, which the terms and conditions are set by the Board of Directors upon proposal from the Appointment-Remuneration Committee and in compliance with Article L. 225-42-1 of the French Commercial Code.

The contractual termination indemnity is exclusively payable in case of revocation, non-renewal of his term of office, or any other form of forced departure relating to a substantial change of situation resulting from a change of control or a change of strategy.

The amount of such indemnity is equal to the difference between (i) a gross amount of 200% of the reference annual compensation of the Corporate Executive Officer and (ii) any sum to which the Corporate Executive Officer may be entitled as a result of his departure from the Group, 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 French Commercial code, payment of the contractual termination indemnity is subject to the fulfilment of demanding performance conditions set by the Board of Directors.

Payment of the indemnity will depend on the average rate of the fulfilment of the objectives related to annual variable compensation of the Chief Executive Officer assessed over the three fiscal years referred to above, in accordance with the following rule:

- If the average rate is lower than 40%, no contractual termination indemnity will be paid ;
- If the average rate is higher than 40%, the contractual termination indemnity will be paid in full.

The payment terms are also compliant with the recommendations of the AFEP-MEDEF Code.

Finally, pursuant to said Article L.225-42-1 of the French Commercial Code, the Board of Directors shall verify prior to the payment of the contractual termination indemnity (i) that the performance conditions set by the Board of Directors are duly fulfilled and (ii) that the payment of such contractual termination indemnity complies with the Corporate Governance Code applicable at the date of departure.

12.3.11. Non-compete agreement

In order to protect the Group interest in the event of departure of certain executive managers including the Senior Executive Officers, the Company provides for non-compete provisions.

As such, the Board of Directors can decide, in accordance with procedures applicable to related party agreements and provided for by Article L.225-38 et seq. of the French Commercial Code, the signature of a non-compete agreement for the benefit of the Group Senior Executive Officers.

This 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. Such agreement applies also to the contribution of projects or activities in the same field as those in which the interested party was involved at Group CGG.

In consideration of this non-compete agreement, for a period defined in the agreement, the Senior Executive Officers are entitled to receive a compensation corresponding to a percentage of their annual reference remuneration as defined in their protection letter related to payment of the contractual indemnity in case of termination of their office. The company determines these elements in compliance with the recommendations of the AFEP-MEDEF Code.

Mr. Jean-Georges Malcor is bound by a non-compete agreement for an 18 months period starting on the date on which he leaves the Group, Mr. Jean-Georges Malcor will be entitled to receive compensation corresponding to 100 % of his annual reference compensation.

12.3.12. Benefits for taking up a position

Benefits for taking up a position may only be granted by the Board of Directors to a new Senior Executive Officer who has come from a company outside the Group, in accordance with the AFEP-MEDEF Code. Payment of this benefit must be duly justified.

13. SENIOR EXECUTIVE OFFICERS' REMUNERATION COMPONENTS SUBMITTED TO THE VOTE OF SHAREHOLDERS

The following tables reflect the Company's senior executive officers' remuneration components that will be submitted to the vote of shareholders during the Combined General Meeting to be held to approve the 2016 financial statements.

Mr. Remi DORVAL, Chairman of the Board of Directors

Remuneration components due or granted for the fiscal year	Amounts submitted to the vote	Presentation
Fixed remuneration	**€109,750**	The fixed remuneration of Mr. DORVAL for fiscal year 2016 was set at €109,750.
Annual variable remuneration	**N/A**	Mr. DORVAL does not receive any variable remuneration.
Deferred annual variable remuneration	**N/A**	Mr. DORVAL does not receive any deferred annual variable remuneration.
Multi-annual variable remuneration	**N/A**	Mr. DORVAL does not receive any multi-annual variable remuneration.
Exceptional compensation	**N/A**	Mr. DORVAL does not receive any exceptional compensation.
Value of options / performance shares granted during the fiscal year	**N/A**	Mr. DORVAL does not benefit from any stock option or performance share plan.
Directors' fees	**€57,700**	The Board of Directors held on March 23, 2016 resolved that Mr. DORVAL would benefit from a fixed amount of Directors' fees, set at €57,200, as Chairman of the Board of Directors.
Value of benefits in kind	**€3,360**	Mr. DORVAL benefits from a company car.

Remuneration components due or granted for the fiscal year that are or were submitted to a vote during a General Meeting as part of the Agreements and Commitments approvals	Amounts submitted to the vote	Presentation
Severance pay	**N/A**	Mr. DORVAL does not benefit from any severance agreement.
Non-compete clause	**N/A**	Mr. DORVAL does not benefit from any non-compete agreement.
General benefits plan	**No amount is to be paid for fiscal year 2016**	Mr. DORVAL benefits from the general benefits plan applicable to all employees.
Supplementary pension plan	**N/A**	Mr. DORVAL does not benefit from any supplementary pension plan.

Mr. Jean-Georges MALCOR, Chief Executive Officer

Remuneration components due or granted for the fiscal year	Amounts submitted to the vote	Presentation
Fixed remuneration	**€630,000**	The fixed remuneration of Mr. MALCOR for 2016 fiscal year was determined by the Board of Directors on March 24, 2016. It has remained unchanged since 2013.
Annual variable remuneration	**€384,216**	The annual variable remuneration of Mr. MALCOR is based on the achievement of qualitative objectives (accounting for 1/3 of the variable compensation) and quantitative objectives (accounting for 2/3 of the variable compensation). The quantitative criteria are based on the achievement of Group budget objectives set by the Board of Directors. His target amount is set at 100 % of his fixed compensation. The maximum percentage of the fixed remuneration that the annual variable remuneration can represent is disclosed in "Item 6: Compensation" of our annual report on Form 20-F.For 2016 : – The quantitative objectives were related to the Group free cash flow (25% weighting), Group external revenues (25% weighting), Group EBIT (25% weighting) and EBITDAS minus tangible and intangible investments made in the course of the fiscal year (25% weighting); – The qualitative objectives (individual objectives) were related to the implementation of the Group transformation plan, the relations with our major customers, the relations with the Board of Directors, the shareholders and the financial community, strategy and development of the Group in the industry and outside the oil and gas industry, human resources and the improvement of the Group HSE performance. On March 2, 2017, based on the achievement of the hereinabove qualitative and quantitative targets and the final 2016 results, the Board of Directors, upon the Appointment-Remuneration Committee's proposal, set this variable remuneration at €384,216. This corresponds to an overall achievement rate of 61% of the target amount of his variable remuneration and of his fixed remuneration.
Deferred annual variable remuneration	**N/A**	Mr. MALCOR does not receive any deferred annual variable remuneration.
Multi-annual variable remuneration	**Performance units value : €63,000 (IFRS value)** *The final allocation of the performance units is subject to the achievement of the Group's objectives.*	On June 23, 2016, the Board of Directors of the Company 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, – 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 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 the business segments' financial objectives aligned with the Group strategic orientations over a 3-year period. The number of vested 2016 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 business segments' objectives. The valuation of each vested 2016 performance unit shall be equal to the average closing price of CGG shares on Euronext over the 5 trading days prior to the vesting date. The vested performance units will be paid half in cash and half in existing CGG shares. The Board of Directors allocated a maximum envelope of 108,960 performance units to Mr. MALCOR under this plan. Final allocation is subject to the achievement of the Group's objectives.
Exceptional compensation	**N/A**	Mr. MALCOR does not receive any exceptional compensation.

Value of options / performance shares granted during the fiscal year	**Stock-options : €124,000 (IFRS book value)** *The vesting of the options is subject to the achievement of the performance conditions and the final value will depend on the final number of vested options and the share price on the day of exercise of the options.*	On June 23, 2016, based on the 28th resolution of the shareholders' meeting held on May 29, 2015, the Board of Directors allocated 882,400 options to Mr. MALCOR, i.e. 0.12% of the share capital of the Company on the day of allocation. This amount was adjusted following the reverse share split of the Company's shares on July 20, 2016. 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 3 batches during the first 4 years of the plan dated June 23, 2016 (50% of the options allocated in June 2019, 25% of the options allocated in June 2020 and 25% of the options allocated in June 2021) and that the acquisition of options would be subject to the following performance conditions: – 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℠ (OSX℠) index shall equal at least 2/3 of the same average ratio over the same period of 60 trading days 3 years before the vesting date; – 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 2/3 of the same average ratio over the same period of 60 trading days 3 years before the vesting date; – Over the vesting period, the market price of the CGG share shall have increased at least by 8% on an annual basis; – The Group results in average over a period of 3 years preceding the vesting date shall reach at least 90% of the average EBITDAS annual targets as determined by the Board of Directors. The other conditions of the plan are disclosed in "Item 6: Share ownership" of our annual report on Form 20-F. Final vesting is subject to the achievement of the performance conditions hereinabove.
Value of options / performance shares granted during the fiscal year	**Performance shares**	N/A
Directors' fees	**N/A**	Mr. MALCOR does not receive any Directors' fees.
Value of benefits in kind	**€11,880**	Mr. MALCOR benefits from a company's car. This benefit was approved by the Board of Directors on March 24, 2016.

Remuneration components due or granted for the fiscal year that are or were submitted to a vote during a General Meeting as part of the Agreements and Commitments approvals	Amounts submitted to the vote	Presentation
Severance pay	**No amount is to be paid for 2016 fiscal year**	Mr. MALCOR benefits from a contractual termination indemnity only 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: (a) a gross amount of 200% of the gross fixed compensation paid by the Company to Mr. MALCOR during the 12-month period preceding his departure date, to which is added the annual average of the variable compensation paid by the Company to Mr. MALCOR over the 36-month period preceding his departure date (hereinafter "the Reference Annual Compensation"), and (b) any sum to which Mr. 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℠ (OSX℠) index shall equal at least 2/3 of the same average ratio over the same 60-day period 4 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 2/3 of the same average ratio over the same 60-day period 4 years before the date on which Mr. MALCOR leaves the Group; - The average margin rate of the Group EBITDAS over the 4 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 2 conditions out of 3. In case only one condition is fulfilled, then Mr. MALCOR will be entitled to receive only 50% of the said special termination indemnity. In accordance with section L. 225-42-1 of the French Commercial Code, this commitment, which was approved by the Board of Directors on May 10, 2012 and ratified by the General Meeting on May 3, 2013, was renewed by the Board of Directors held on June 4, 2014 which also renewed the office of Mr. MALCOR as Chief Executive Officer. It was ratified by the General meeting on May 29, 2015. This agreement was amended by the Board of Directors on January 4, 2017 (see "Item 6: Compensation" of our annual report on Form 20F).
Non-compete clause	**No amount is to be paid for 2016 fiscal year**	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. 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 18 months starting on the date on which he leaves the Group. In consideration for this undertaking, Mr. 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. 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. MALCOR. This agreement was ratified by the General Meeting held on May 4, 2011.
General benefits plan	**No amount is to be paid for 2016 fiscal year**	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. 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.
Individual insurance covering loss of employment	**No amount is to be paid for 2016 fiscal year**	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. MALCOR. This agreement was ratified by the General Meeting held on May 4, 2011. The annual subscription fee payable by the Company amounts to €10,571.13 for 2016. This insurance provides for the payment of a maximum of 13.4 % of his 2016 target compensation (corresponding to €169,910), for a duration of 12 months.
Supplementary pension plan	**No amount is to be paid for 2016 fiscal year**	Mr. MALCOR benefits from the 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). It is an additive defined benefit plan with a cap. Accruals are acquired per year of service, with a double limit: • Potential rights are applied in addition to the mandatory basic and supplementary pension schemes but cannot, however, procure in aggregate for all schemes, a replacement rate exceeding 50%; • Potential rights are calculated on the basis of seniority with an upper limit of 20 years. They are accrued up to: - 1.5% of the remuneration used as reference, per seniority year within the company and up to 20 years, for the portion of remuneration below 20 times the Social security upper limit;

		- 1% of the remuneration used as reference, per seniority year within the company and up to 20 years, for the portion of remuneration above 20 times the Social security upper limit; Further, to participate in the plan, the Beneficiaries must comply with the main following cumulative conditions: • have liquidated their social security pension and all possible other rights to pensions, • have at least five 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. This plan was closed to new comers on July 1, 2014. As of December 31, 2016, the Company's commitment under the supplemental retirement plan corresponds for Mr. MALCOR, to an annual pension equal to 17%, of his annual 2016 target compensation. The aggregate present benefit value of this supplemental plan as of December 31, 2016 was €12,295,566 of which €833,983 has been recorded as an expense for fiscal year 2016. Of such present benefit value, the portions relating to Mr. MALCOR are €3,004,684 and €352,812 respectively. 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 extension of this supplemental retirement plan to Mr. MALCOR. This agreement was ratified by the General Meeting held on May 4, 2011.

Mr. Stéphane-Paul FRYDMAN, Corporate Officer

Remuneration components due or granted for the fiscal year	Amounts submitted to the vote	Presentation
Fixed remuneration	**€426,080**	The fixed remuneration of Mr. FRYDMAN for 2016 fiscal year was determined by the Board of Directors on March 24, 2016. Its components are as follows : – €346,080 paid under his employment agreement (unchanged compared to 2015); – €80,000 paid for his corporate office (*mandat social*) (unchanged compared to 2015).
Profit sharing		N/A
Annual variable remuneration	**€194,892**	The annual variable remuneration of Mr. FRYDMAN is based on the achievement of qualitative objectives (accounting for 1/3 of the variable compensation) and quantitative objectives (accounting for 2/3 of the variable compensation). The quantitative criteria are based on the achievement of Group budget objectives set by the Board of Directors. His target amount is set at 75 % of his fixed compensation. The maximum percentage of the fixed remuneration that the annual variable remuneration can represent is disclosed in "Item 6: Compensation" of our annual report on Form 20F. For 2016: – The quantitative objectives were related to the Group free cash flow (25% weighting), Group external revenues (25% weighting), Group EBIT (25% weighting) and EBITDAS minus tangible and intangible investments made in the course of the fiscal year (25% weighting); – The qualitative objectives (individual objectives) were 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.

		On March 2, 2017, based on the achievement of the hereinabove qualitative and quantitative targets and the final 2016 results, the Board of Directors, upon the Appointment-Remuneration Committee's proposal, set this variable remuneration at €194,892. This corresponds to an overall achievement rate of 61% of the target amount of his variable remuneration and 46% of his fixed remuneration.
Deferred annual variable remuneration	**N/A**	Mr. FRYDMAN does not receive any deferred annual variable remuneration.
Exceptional compensation	**N/A**	Mr. FRYDMAN does not receive any exceptional compensation.
Value of options / performance shares granted during the fiscal year	**Stock-options : €62,500 (IFRS book value) The vesting of the options is subject to the achievement of the performance conditions and the final value will depend on the final number of vested options and the share price on the day of exercise of the options.**	On June 23, 2016, based on the 28th resolution of the General Meeting held on May 29, 2015, the Board of Directors allocated 444,000 options to Mr. FRYDMAN, i.e. 0.06% of the share capital of the Company on the day of allocation. This amount was adjusted following the reverse share split of the Company's shares on July 20, 2016. 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 3 batches during the first 4 years of the plan dated June 23, 2016 (50% of the options allocated in June 2019, 25% of the options allocated in June 2020 and 25% of the options allocated in June 2021) and that the acquisition of options would be subject to the following performance conditions: – 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℠ (OSX℠) index shall equal at least 2/3 of the same average ratio over the same period of 60 trading days 3 years before the vesting date; – 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 2/3 of the same average ratio over the same period of 60 trading days 3 years before the vesting date; – Over the vesting period, the market price of the CGG share shall have increased at least by 8% on an annual basis; – The Group results in average over a period of 3 years preceding the vesting date shall reach at least 90% of the average EBITDAS annual targets as determined by the Board of Directors. The other conditions of the plan are disclosed "Item 6: Share Ownership" of our annual report on Form 20F. Final vesting is subject to the achievement of the performance conditions hereinabove.
	Performance shares	N/A
Directors' fees	**N/A**	Mr. FRYDMAN does not receive any Directors' fees.
Value of benefits in kind	**€4,800**	Mr. FRYDMAN benefits from a company car. This benefit was approved on March 24, 2016.

Remuneration components due or granted for the fiscal year that are or were submitted to a vote during a General Meeting as part of the Agreements and Commitments approvals	Amounts submitted to the vote	Presentation
Multi-annual variable remuneration	**Performance units value : €29,000 (IFRS value)** *The final allocation of the performance units is subject to the achievement of the Group's objectives.*	On June 23, 2016, the Board of Directors of the Company 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, – 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 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 the business segments' financial objectives aligned with the Group strategic orientations over a 3-year period. The number of vested 2016 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 business segments' objectives. The valuation of each vested 2016 performance unit shall be equal to the average closing price of CGG shares on Euronext over the 5 trading days prior to the vesting date. The vested performance units will be paid half in cash and half in existing CGG shares. The Board of Directors allocated a maximum envelope of 49,600 performance units to Mr. FRYDMAN under this plan. Final allocation is subject to the achievement of the Group's objectives. In accordance with section L.225-38 of the of the French Commercial Code, this commitment was approved by the Board of Directors on June 23, 2016 and will be submitted to the General Meeting to be convened to approve the 2016 financial statements.
Severance pay	**No amount is to be paid for 2016 fiscal year**	Mr. FRYDMAN benefits from a contractual termination indemnity only 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: (a) a gross amount of 200% of the gross fixed compensation paid by the Company to Mr. FRYDMAN during the 12-month period preceding his departure date, to which is added the annual average of the variable compensation paid by the Company to Mr. FRYDMAN over the 36-month period preceding his departure date, (hereinafter "the Reference Annual Compensation"), and (b) any sum to which Mr. FRYDMAN 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^{SM} (OSX^{SM}) index shall equal at least 2/3 of the same average ratio over the same 60-day period 4 years before the date on which Mr. FRYDMAN 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 2/3 of the same average ratio over the same 60-day period 4 years before the date on which Mr. FRYDMAN leaves the Group; - The average margin rate of the Group EBITDAS over the 4 years preceding the date on which Mr. FRYDMAN leaves the Group shall be at least 25%. Payment of the full amount of the special termination indemnity is subject to the fulfillment of 2 conditions out of 3. In case only one condition is fulfilled, then Mr. FRYDMAN will be entitled to receive only 50% of the said special termination indemnity. In accordance with section L. 225-42-1 of the French Commercial Code, this commitment, which was approved by the Board of Directors on February 29, 2012 and ratified by the General Meeting on May 10, 2012, was renewed by the Board of Directors held on February 25, 2015 which also renewed the office of Mr. FRYDMAN as Corporate Officer. The renewal of severance pay commitment was ratified by the General Meeting held on May 29, 2015.
Non-compete clause	**No amount is to be paid for 2016 fiscal year**	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. FRYDMAN 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 18 months starting on the date on which he leaves the Group. In consideration for this undertaking, Mr. FRYDMAN 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. 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 Mr. FRYDMAN. This agreement was ratified by the General Meeting held on May 10, 2012.
General benefits plan	**No amount is to be paid for 2016 fiscal year**	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 extension to Mr. FRYDMAN 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 10, 2012.
Supplementary pension plan	**No amount is to be paid for 2016 fiscal year**	Mr. FRYDMAN benefits from the 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). It is an additive defined benefit plan with a cap. Accruals are acquired per year of service, with a double limit: • Potential rights are applied in addition to the mandatory basic and supplementary pension schemes but cannot, however, procure in aggregate for all schemes, a replacement rate exceeding 50%; • Potential rights are calculated on the basis of seniority with an upper limit of 20 years. They are accrued up to: - 1.5% of the remuneration used as reference, per seniority year within the company and up to 20 years, for the portion of remuneration below 20 times the French Social security upper limit; - 1% of the remuneration used as reference, per seniority year within the company and up to 20 years, for the portion of remuneration above 20 times the French Social security upper limit; Further, to participate in the plan, the Beneficiaries must comply with the main following cumulative conditions: • have liquidated their social security pension and all possible other rights to pensions, • have at least five 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. This plan was closed to new comers on July 1, 2014. As of December 31, 2016, the Company's commitment under the supplemental retirement plan corresponds for Mr. FRYDMAN to an annual pension equal to 30% of his annual 2016 target compensation. The aggregate present benefit value of this supplemental plan as of December 31, 2016 was €12,295,566 of which €833,983 has been recorded as an expense for fiscal year 2016. Of such present benefit value, the portions relating to Mr. FRYDMAN are €2,081,369 and €169,189 respectively. 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 February 29, 2012 the extension of this supplemental retirement plan to Mr. FRYDMAN. This agreement was ratified by the General Meeting held on May 10, 2012.

Mr. Pascal ROUILLER, Corporate Officer

Remuneration components due or granted for the fiscal year	Amounts submitted to the vote	Presentation
Fixed remuneration	**€426,080**	The fixed remuneration of Mr. ROUILLER for 2016 fiscal year was determined by the Board of Directors on March 24, 2016. Its components are as follows : – €346,080 paid under his employment agreement, including €12,000 for his corporate office in Sercel SAS (unchanged compared to 2015); – €80,000 paid for his corporate office (*mandat social*) (unchanged compared to 2015).
Profit sharing		N/A
Annual variable remuneration	**€194,892**	The annual variable remuneration of Mr. ROUILLER is based on the achievement of qualitative objectives (accounting for 1/3 of the variable compensation) and quantitative objectives (accounting for 2/3 of the variable compensation). The quantitative criteria are based on the achievement of Group budget objectives set by the Board of Directors. His target amount is set at 75 % of his fixed compensation. The maximum percentage of the fixed remuneration that the annual variable remuneration can represent is disclosed in "Item 6: Compensation" of our annual report on Form 20F. For 2016: – The quantitative objectives were related the Group free cash flow (25% weighting), Group external revenues (25% weighting), Group EBITA minus tangible and intangible investments made during the fiscal year (25% weighting), Group EBIT (25% weighting) – The qualitative objectives (individual objectives) were related to the execution of the Group transformation plan, the relations with the customers, the Board of Directors, shareholders and investors, strategy and future development of the Group, human resources and HSE performance. On March 2, 2017, based on the achievement of the hereinabove qualitative and quantitative targets and the final 2016 results, the Board of Directors, upon the Appointment-Remuneration Committee's proposal, set this variable remuneration at €194,892. This corresponds to an overall achievement rate of 61% of the target amount of his variable remuneration and 46% of his fixed remuneration.
Deferred annual variable remuneration	**N/A**	Mr. ROUILLER does not receive any deferred annual variable remuneration.
Exceptional compensation	**N/A**	Mr. ROUILLER does not receive any exceptional compensation.
Value of options / performance shares granted during the fiscal year	**Stock-options :** **€ 62,500** **(IFRS book value)** *The vesting of the options is subject to the achievement of the performance conditions and the final value will depend on the final number of vested options and the share price on the day of exercise of the options.*	On June 23, 2016, based on the 28th resolution of the shareholders' meeting held on May 29, 2015, the Board of Directors allocated 444,000 options to Mr. ROUILLER, i.e. 0.06% of the share capital of the Company on the day of allocation. This amount was adjusted following the reverse split on the Company's shares on July 20, 2016. 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 3 batches during the first 4 years of the plan dated June 23, 2016 (50% of the options allocated in June 2019, 25% of the options allocated in June 2020 and 25% of the options allocated in June 2021) and that the acquisition of options would be subject to the following performance conditions: – 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℠ (OSX℠) index shall equal at least 2/3 of the same average ratio over the same period of 60 trading days 3 years before the vesting date;

		– 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 2/3 of the same average ratio over the same period of 60 trading days 3 years before the vesting date; – Over the vesting period, the market price of the CGG share shall have increased at least by 8% on an annual basis; – 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. The other conditions of the plan are disclosed in "Item 6: Share Ownership" of our annual report on Form 20F. Final vesting is subject to the achievement of the performance conditions hereinabove.
	Performance shares	N/A
Directors' fees	**N/A**	Mr. ROUILLER does not receive any Directors' fees.
Value of benefits in kind	**€5,280**	Mr. ROUILLER benefits from a company car. This benefit was approved on March 24, 2016.

Remuneration components due or granted for the fiscal year that are or were submitted to a vote during a General Meeting as part of the Agreements and Commitments approvals	Amounts submitted to the vote	Presentation
Multi-annual variable remuneration	**Performance units value : € 29,000 (IFRS value)** *The final allocation of the performance units is subject to the achievement of the Group's objectives.*	On June 23, 2016, the Board of Directors of the Company 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, – 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 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 the business segments' financial objectives aligned with the Group strategic orientations over a 3-year period.
Multi-annual variable remuneration	**Performance units value : € (IFRS value)** *The final allocation of the performance units is subject to the achievement of the Group's objectives.*	The number of vested 2016 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 business segments' objectives. The valuation of each vested 2016 performance unit shall be equal to the average closing price of CGG shares on Euronext over the 5 trading days prior to the vesting date. The vested performance units will be paid half in cash and half in existing CGG shares. The Board of Directors allocated a maximum envelope of 49,600 performance units to Mr. ROUILLER under this plan. Final allocation is subject to the achievement of the Group's objectives. In accordance with section L.225-38 of the of the French Commercial Code, this commitment was approved by the Board of Directors on June 23, 2016 and will be submitted to the General Meeting to be convened to approve the 2016 financial statements.

Severance pay	**No amount is to be paid for 2016 fiscal year**	Mr. ROUILLER benefits from a contractual termination indemnity only 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: (a) a gross amount of 200% of the gross fixed compensation paid by the Company to Mr. ROUILLER during the 12-month period preceding his departure date, to which is added the annual average of the variable compensation paid by the Company to Mr. ROUILLER over the 36-month period preceding his departure date, (hereinafter "the Reference Annual Compensation"), and (b) any sum to which Mr. ROUILLER 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^{SM} (OSX^{SM}) index shall equal at least 2/3 of the same average ratio over the same 60-day period 4 years before the date on which Mr. ROUILLER 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 2/3 of the same average ratio over the same 60-day period 4 years before the date on which Mr. ROUILLER leaves the Group; - The average margin rate of the Group EBITDAS over the 4 years preceding the date on which Mr. ROUILLER leaves the Group shall be at least 25%. Payment of the full amount of the special termination indemnity is subject to the fulfillment of 2 conditions out of 3. In case only one condition is fulfilled, then Mr. ROUILLER will be entitled to receive only 50% of the said special termination indemnity. In accordance with section L. 225-42-1 of the French Commercial Code, this commitment, which was approved by the Board of Directors on February 29, 2012 and ratified by the General meeting on May 10, 2012, was renewed by the Board of Directors held on February 25, 2015 which also renewed the office of Mr. ROUILLER as Corporate Officer and was ratified by the General Meeting held on May 29, 2015.
Non-compete clause	**No amount is to be paid for 2016 fiscal year**	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. ROUILLER 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 18 months starting on the date on which he leaves the Group. In consideration for this undertaking, Mr. ROUILLER 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. 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 Mr. ROUILLER. This agreement was ratified by the General Meeting held on May 10, 2012.
General benefits plan	**No amount is to be paid for 2016 fiscal year**	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 extension to Mr. ROUILLER 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 10, 2012.

Supplementary pension plan	**No amount is to be paid for 2016 fiscal year**	Mr. ROUILLER benefits from the 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). It is an additive defined benefit plan with a cap. Accruals are acquired per year of service, with a double limit: • Potential rights are applied in addition to the mandatory basic and supplementary pension schemes but cannot, however, procure in aggregate for all schemes, a replacement rate exceeding 50%; • Potential rights are calculated on the basis of seniority with an upper limit of 20 years. They are accrued up to: - 1.5% of the remuneration used as reference, per seniority year within the company and up to 20 years, for the portion of remuneration below 20 times the French Social security upper limit; - 1% of the remuneration used as reference, per seniority year within the company and up to 20 years, for the portion of remuneration above 20 times the French Social security upper limit. Further, to participate in the plan, the Beneficiaries must comply with the main following cumulative conditions: • have liquidated their social security pension and all possible other rights to pensions, • have at least five 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. This plan was closed to new comers on July 1, 2014. As of December 31, 2016, the Company's commitment under the supplemental retirement plan corresponds for Mr. ROUILLER to an annual pension equal to 26 % of his annual 2016 target compensation. The aggregate present benefit value of this supplemental plan as of December 31, 2016 was €12,295,566 of which €833,983 has been recorded as an expense for fiscal year 2016.

Ms. Sophie ZURQUIYAH, Corporate Officer

Remuneration components due or granted for the fiscal year	Amounts submitted to the vote	Presentation
Fixed remuneration	**€532,000**	The fixed remuneration of Ms. ZURQUIYAH for 2016 fiscal year is composed as follows : – €452,200 paid under her employment agreement[20]; – €80,000 paid for her corporate office (*mandat social*) in CGG SA[21].
Profit sharing	**N/A**	Ms. ZURQUIYAH does not benefit from any profit sharing agreement.
Annual variable remuneration	**€242,164[22]**	The annual variable remuneration of Mrs. ZURQUIYAH is based on the achievement of qualitative objectives (accounting for 1/3 of the variable compensation) and quantitative objectives (accounting for 2/3 of the variable compensation). The quantitative criteria are based on the achievement of Group budget objectives set by the Board of Directors. Her target amount is set at 75% of her fixed compensation. The maximum percentage of the fixed remuneration that the annual variable remuneration can represent is disclosed in "Item 6: Compensation" of our annual report on Form 20F. For 2016: – The quantitative objectives were related to the Group free cash flow (25% weighting), EBITDAS minus tangible and intangible investments made in the course of the fiscal year (25% weighting), Group external revenues (25% weighting) and Group operating income (25% weighting). – The qualitative objectives (individual objectives) were related to the operational, financial, quality and HSE performance of the GGR business lines, the execution of the Group transformation plan, the strategic development of GGR, the proper operation of the technology and shared support functions of CGG, and human resources. On March 2, 2017, based on the achievement of the hereinabove qualitative and quantitative targets and the final 2016 results, the Board of Directors, upon the Appointment-Remuneration Committee's proposal, set this variable remuneration at €242,164. This corresponds to an overall achievement rate of 61% of the target amount of her variable remuneration and 45.5 % of her fixed remuneration.
Deferred annual variable remuneration	**N/A**	Ms. ZURQUIYAH does not receive any deferred annual variable remuneration.
Exceptional compensation	**N/A**	Ms. ZURQUIYAH does not receive any exceptional compensation.
Value of options / performance shares granted during the fiscal year	**Stock-options: €62,500 (IFRS book value)** *The vesting of the options is subject to the achievement of the performance conditions and the final value will depend on the final number of vested*	On June 23, 2016, based on the 28th resolution of the General Meeting held on May 29, 2015, the Board of Directors allocated 444,000 options to Ms. ZURQUIYAH, i.e. 0.06% of the share capital of the Company on the date of allocation. This amount was adjusted following the reverse split on the Company's shares on July 20, 2016. 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 3 batches during the first 4 years of the plan dated June 23, 2016 (50% of the options allocated in June 2019, 25% of the options allocated in June 2020

[20] *The fixed compensation of Ms. ZURQUIYAH pursuant to her employment agreement is paid in U.S. dollars by CGG Services (U.S.) Inc., a fully owned subsidiary of CGG SA. The above information is presented in euros, based on an average US$/€ exchange rate of 0.9044 over the fiscal year 2016.*

[21] *The fixed compensation of Ms. ZURQUIYAH pursuant to her corporate office was determined by the Board of Directors on July 30, 2015. This compensation is paid in euros by CGG SA.*

[22] *The annual variable compensation paid to Ms. ZURQUIYAH for 2016 is paid in US dollars. The above information is presented in euros, based on an average US$/€ exchange rate of 0.9044 over the fiscal year 2016.*

	options and the share price on the day of exercise of the options.	and 25% of the options allocated in June 2021) and that the acquisition of options would be subject to the following performance conditions: – 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^{SM} (OSX^{SM}) index shall equal at least 2/3 of the same average ratio over the same period of 60 trading days 3 years before the vesting date; same period of 60 trading days 3 years before the vesting date; – 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 2/3 of the same average ratio over the – Over the vesting period, the market price of the CGG share shall have increased at least by 8% on an annual basis; – The Group results in average over a period of 3 years preceding the vesting date shall reach at least 90% of the average EBITDAS annual targets as determined by the Board of Directors. The other conditions of the plan are disclosed "Item 6: Share Ownership" of our annual report on Form 20F. Final vesting is subject to the achievement of the performance conditions hereinabove.
	Performance shares	N/A
Directors' fees	**N/A**	Ms. ZURQUIYAH does not receive any Directors' fees.
Value of benefits in kind	**N/A**	Ms. ZURQUIYAH does not benefit from benefits in kind.

Remuneration components due or granted for the fiscal year that are or were submitted to a vote during a General Meeting as part of the Agreements and Commitments approvals	Amounts submitted to the vote	Presentation
Multi-annual variable remuneration	**Performance units value: €29,000 (IFRS value)** *The final allocation of the performance units is subject to the achievement of the Group's objectives.*	On June 23, 2016, the Board of Directors of the Company 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, – 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 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 the business segments' financial objectives aligned with the Group strategic orientations over a 3-year period. The number of vested 2016 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 business segments' objectives. The valuation of each vested 2016 performance unit shall be equal to the average closing price of CGG shares on Euronext over the 5 trading days prior to the vesting date. The vested performance units will be paid half in cash and half in existing CGG shares.

		The Board of Directors allocated a maximum envelope of 49,600 performance units to Ms. ZURQUIYAH under this plan. Final allocation is subject to the achievement of the Group's objectives.
Severance pay	**No amount is to be paid for 2016 fiscal year**	Ms. ZURQUIYAH benefits from a contractual termination indemnity only 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: (a) a gross amount of 200% of the gross fixed compensation paid by the Company and/or any of its affiliates to Ms. ZURQUIYAH during the 12-month period preceding her departure date, to which is added the annual average of the variable compensation paid by the Company to Ms. ZURQUIYAH over the 36-month period preceding her departure date, (hereinafter "the Reference Annual Compensation"), and (b) any sum to which Ms. ZURQUIYAH may be entitled as a result of such termination, including any sums to be paid further to the application of her 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^{SM} (OSX^{SM}) index shall equal at least 2/3 of the same average ratio over the same 60-day period 4 years before the date on which Ms. ZURQUIYAH 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 2/3 of the same average ratio over the same 60-day period 4 years before the date on which Ms. ZURQUIYAH leaves the Group; - The average margin rate of the Group EBITDAS over the 4 years preceding the date on which Ms. ZURQUIYAH leaves the Group shall be at least 25%. Payment of the full amount of the special termination indemnity is subject to the fulfillment of 2 conditions out of 3. In case only one condition is fulfilled, then Ms. ZURQUIYAH will be entitled to receive only 50% of the said special termination indemnity. In accordance with section L. 225-42-1 of the French Commercial Code, this commitment, which was approved by the Board of Directors on July 30, 2015 and was ratified by the General Meeting on May 27, 2016 (10th resolution).
Non-compete clause	**No amount is to be paid for 2016 fiscal year**	Ms. ZURQUIYAH benefits from a non-compete agreement applicable 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. Ms. ZURQUIYAH has agreed that she will not contribute to projects or activities in the same field as those in which she was involved at CGG for a period of 18 months starting on the date on which she leaves the Group. In consideration for this undertaking, Ms. ZURQUIYAH will be entitled to receive compensation corresponding to 100% of her annual Reference compensation as defined in the protection letters related to payment of the contractual indemnity in case of termination of her office. Ms. ZURQUIYAH benefits from this non-compete provision in the framework of her employment contract with CGG Services (U.S.) Inc. dated February 4, 2013.
General benefits plan	**No amount is to be paid for fiscal year 2016**	Ms. ZURQUIYAH automatically benefits from the general benefits plan applicable to all employees of the Company since she receives a remuneration from the Company as Corporate Officer.

Supplementary pension plan	**N/A**	Ms. ZURQUIYAH does not benefit from the supplementary pension plan that was implemented on December 8, 2004 and which is closed to new comers since July 1, 2014. Pursuant to her US employment agreement, she benefits from a US supplemental retirement defined contribution plan (401k).

14. FINANCIAL DELEGATIONS AND AUTHORIZATIONS

These tables summarize the financial delegations granted by the General Meeting to the Board of Directors, which are currently in force.

Share capital increases

	Authorizations in force during 2016 fiscal year			
	Resolution number - General Meeting	**Period**	**Maximum authorized amount**	**Use of the authorization in 2016**
Increase of share capital through the issue of shares, or any other securities giving access to the share capital, with preferential subscription rights in favor of holders of existing shares	3rd – GM 01/11/2016 (cancels and replaces the 23rd résolution of the GM held on 05/29/2015)	6 months	€350 million	02/05/2016: Share capital increase amounting to €350,589,080 (including share premium). This authorization expired on 07.11.2017.
	23rd – GM 05/29/2015 (2)	26 months	€35 million (1)	None. This authorization was cancelled and replaced by the 3rd resolution of the GM dated 01.11.2016.
Increase of share capital through the issue of securities other than shares, without preferential subscription rights in favor of the holders of existing shares through a public offer	14th - GM 05/27/2016 (2)	26 months	€1.8 million	None
Increase of share capital through the issue of ecurities other than shares, without preferential subscription rights in favor of the holders of existing shares made by private placement	15th – GM 05/27/2016 (2)	26 months	€1.8 million	None
Increase of share capital by incorporation of reserves, profits or premiums	25th – GM 05/29/2015 (2)	26 months	€10 million (3)	None
Increase of capital, reserving the subscription of the shares to be issued to members of a Company Savings Plan (“*Plan d’Epargne Entreprise*”)	16th – GM 05/27/2016 (2)	26 months	€2.5 million (4)	None
	26th – GM 05/29/2015 (2)	26 months	€2.5 million (3)	None
Issuance of bonds convertible into new shares and/or exchangeable for existing shares (OCEANE)	24th – GM 05/29/2015	12 months	€11.35 million (5) On June 26, 2015, 25,285,035 bonds due 2020 have been issued, leading to a share capital increase amounting to €10,114,014. Therefore, the oustanding amount available since then is €1,235,986.	None

(1) Aggregate ceiling for share capital increases, any operations considered, to the exception of stock-options and performance shares allocations.
(2) Cancels and replaces, for the non-used portion, the resolutions voted in this respect during the previous General Meetings.
(3) Within the limit of the aggregate ceilling of €350 million mentioned in the 3rd resolution of the General Meeting held on January 11, 2016.
(4) Within the limit of the aggregate ceiling of €1.8 million mentioned in the 14th resolution of the General Meeting held on May 27, 2016.
(5) Within the limit of the aggregate ceilling of €35 million mentioned in the 23rd resolution of the General Meeting held on May 29, 2015.

Stock-options and performance shares

	Authorizations in force during 2016 fiscal year			
	Resolution number - General Meeting	**Period**	**Maximum authorized amount**	**Use of the authorization in 2016**
Stock-options	27th – GM 05/29/2015 (1) / Allocation to the employees (excluding the Chief Executive Officer and the members of the Corporate Committee)	26 months	1.32% of the share capital as of the date the Board of Directors' decision, without exceeding 0.85% of the share capital over a 12-month period. No discount.	June 23, 2016: Allocation of 128,949 options (2)
	28th – GM 05/29/2015 (1) / Allocation to the Chief Executive Officer and the members of the Corporate Committee	26 months	0.68% of the share capital as of the date the Board of Directors' decision, without exceeding 0.43% of the share capital over a 12-month period. Subject to performance conditions. No discount.	June 23, 2016: Allocation of 79,140 options (2)
Performance shares	29th – GM 05/29/2015 (1) / Allocation to the employees (excluding the Chief Executive Officer and the members of the Corporate Committee)	26 months	0.76% of the share capital as of the date the Board of Directors' decision, without exceeding 0.50% of the share capital over a 12-month period.	None
	30th – GM 05/29/2015 (1) / Allocation to the Chief Executive Officer and the members of the Corporate Committee	26 months	0.08% of the share capital as of the date the Board of Directors' decision, without exceeding 0.05% of the share capital over a 12-month period. Special cap imposed upon the allocation to the Chief Executive Officer and the two corporate officers: 15% of the allocations implemented pursuant to the 29th and 30th resolutions.	None

(1) Cancels and replaces, for the non-used portion, the resolutions voted in this respect during the previous General Meetings.
(2) These numbers have been adjusted further to the stock reverse split dated July 20, 2016.

Share buy-back program

	Authorizations in force during 2016 fiscal year			
	Resolution number - General Meeting	**Period**	**Maximum authorized amount**	**Use of the authorization in 2016**
Share repurchase	7th - GM 05/27/2016 (1)	18 months	10% of the share capital Maximum amount : €40 per share	None
	13th - GM 05/29/2015 (1)	18 months	10% of the share capital Maximum amount : €40 per share	None

(1) Cancels and replaces, for the non used portion, the resolutions voted in this respect during the previous General Meetings.

Capital reductions

	Authorizations in force during 2016 fiscal year			
	Resolution number - General Meeting	**Period**	**Maximum authorized amount**	**Use of the authorization in 2016**
Share cancellation	19th - GM 05/27/2016 (1)	18 months	10% of the share capital	None
	31st - GM 05/29/2015 (1)	18 months	10% of the share capital	None
Reduction of the nominal value	18th - GM 06/27/2016	n.a.	€ 265,597,788	08/11/2016 : Share capital reduction amounting to €265,597,788

(1) Cancels and replaces, for the non used portion, the resolutions voted in this respect during the previous General Meetings.

14. ITEMS LIKELY TO HAVE AN INFLUENCE IN THE EVENT OF A TAKE-OVER BID

Pursuant to article L.225-100-3 of the French Commercial Code, you will find below the elements which are likely to have an influence in case of a take-over bid.

Capital structure of the Company:

Notice of crossing of a statutory threshold:

Pursuant to article 7.2 of the by-laws of the Company, any shareholder holding directly or indirectly a portion amounting to 1% of the stock capital or of the voting rights or a multiple of this percentage, within the meaning of article L. 233-7 of the French Commercial Code, shall give notice to the Company of the number of shares or voting rights he holds, within five trading days from the date on which one of these thresholds was exceeded.

In the event of failure to comply with this notification requirement, and upon request of one or several shareholders holding at least 1 percent of the capital, such request being recorded in the minutes of the General Meeting, those shares in excess of the fraction that should have been declared shall be deprived of their voting rights from the date of said General Meeting and for any other subsequent General Meeting to be held until the expiry of a two-year period following the date on which the required notification of the passing of the threshold will have been regularized.

Similarly, any shareholder whose shareholding is reduced below one of these thresholds shall give notice thereof to the Company within the same five-day period.

Double voting right:

As from May 22 1997, a double voting right has been allocated to all registered and fully paid-up shares registered in the name of the same holder for at least two years.

Statutory restrictions concerning the exercise of voting rights and share transfers or clauses of agreements which the Company is aware of, in compliance with article L.233-11 of the French Commercial Code:

There is no statutory restriction to the exercise of voting right and share transfers. The Company is not aware of any agreement in compliance with article L.233-11 of the French Commercial Code.

Direct or indirect shareholding in the share capital of the Company notified pursuant to sections L.233-7 and L.233-12 of the French Commercial Code:

See “Item 7: Principal Shareholders – Major Shareholders” of our report on Form 20-F.

List of holders of any security with special control rights and related description:

There is no holder of securities with special rights.

Control mechanism included in a potential system of employees share ownership, when control rights are not exercised by them:

Not applicable

Agreements between shareholders which the Company is aware of and which are likely to restrict share transfers and the exercise of voting rights:

The agreement between Bpifrance and IFP Energies Nouvelles is referred to in “Item 7: Principal Shareholders – Major Shareholders” of our report on Form 20-F.

Rules applicable to the appointment and replacement of members of the Board of Directors as well as the modification of bylaws:

The rules applicable to the appointment and replacement of Board of Directors’ members are described in article 14 of the by-laws. The rules applicable to the modification of by-laws are described in article L.225-96 of the French Commercial Code.

None of these rules is likely to have an influence in case of a take-over bid.

Powers of the Board of Directors, in particular the issuance or re-purchase of shares:

The Board of Directors does not have any specific power likely to have an influence in case of a take-over bid. The delegations of competence currently in force cannot be used by the Board of Directors in case of a take-over bid.

Agreements entered into by the Company and modified or terminated in the event of change of control over the Company:

The indentures governing our outstanding senior notes and certain of our credit facilities provide for an early redemption of the loans, at the option of the lenders, in the event of a change of control, pursuant to the terms specified in each agreement.

Agreements providing for severance payments to employees who resign or who are dismissed without cause or employees whose employment is terminated in the event of a take-over bid:

In addition to the agreements referred to in “Item 6: Directors, Senior Management and Employees – Contractual Indemnity in case of termination” of our report on Form 20-F, with respect to the Company’s Executive Officers, we inform you that certain executives of the Group benefit from a protection letter providing for the payment of a severance payment in the event of dismissal or change of control. The amount of such severance payment depends upon the positions and classifications of each concerned persons.

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