Where is CGG today

Jean-Georges MALCOR
Forward Looking Statements

This presentation contains forward-looking statements, including, without limitation, statements about CGG (“the Company”) plans, strategies and prospects. These forward-looking statements are subject to risks and uncertainties that may change at any time, and, therefore, the Company’s actual results may differ materially from those that were expected. The Company based these forward-looking statements on its current assumptions, expectations and projections about future events. Although the Company believes that the expectations reflected in these forward-looking statements are reasonable, it is very difficult to predict the impact of known factors and it is impossible for us to anticipate all factors that could affect our proposed results. All forward-looking statements are based upon information available to the Company as of the date of this presentation. Important factors that could cause actual results to differ materially from management’s expectations are disclosed in the Company’s periodic reports and registration statements filed with the SEC and the AMF. Investors are cautioned not to place undue reliance on such forward-looking statements.
Phase 1: Performance Plan 2011-2012
Follow up to last Capital Market Day: Improving our performance

**Operational performance**

- **Vessel upgrades**
  - 2010: Vanquish
  - 2011: Oceanic Phoenix & Oceanic Endeavour
  - 2012: Champion

- **New builds**
  - 2010: Oceanic Vega X-Bow
  - 2011: Oceanic Sirius X-Bow

- A younger high-end fleet with more streamers per vessel
Follow up to last Capital Market Day: Improving our performance

Operational performance

Cost reduction

- A streamlined organization by division
- Significant savings in global procurement
Follow up to last Capital Market Day: Improving our performance

Operational performance

Cost reduction

Technology and commercial differentiation

Performance Plan commitments

Actions 2011-2012

- **Marine**: BroadSeis, BroadSource and StagSeis
- **Subsurface Imaging**: new algorithms and an unrivalled computing power
- **Sercel**: Sentinel RD and Sentinel MS
- Partnerships with PetroVietnam and Baker Hughes
The Performance Plan, what we delivered…
Operational performance

Marine operational performance
Availability rate above the 90% target
Rolling last four quarters

Marine operational performance
Production rate above the 90% target
Rolling last four quarters
The Performance Plan, what we delivered...

Cost reduction

G&A cost reduction

Sharp reduction in 2011 & 2012

R&D

Increased R&D spending

R&D expenses in % of revenues

G&R (excluding Multi-Client)

Equipment
The Performance Plan, what we delivered…
Technology and commercial differentiation

Technology differentiation
- Equipment
- Acquisition
- Processing

Commercial differentiation
- Strategic Partnerships

**Technology differentiation**
- **Equipment**
- **Acquisition**
- **Processing**

**2010**
- **TTI RTM**
- **BroadSeis**

**2011**
- **SeaRay 428**

**2012**
- **Gigatransverse**
- **SpiceRack**

**2013**
- **GWE**
- **508XT**

**Processing**
- **StagSeis**
- **BroadSource**
- **UltraSeis**

**Strategic Partnerships**
- **Marine JV** with PetroVietnam
- **Chinese partnership**
- **Russian partnerships**
- **Baker Hughes Shale Science Alliance**
Financial Synthesis 2010-2012: A profitable growth

Revenue

- 2010: 2904
- 2011: 3181
- 2012: 3411

+17%

EBITDAs

- 2010: 824
- 2011: 852
- 2012: 1011

+23%

EBIT

- 2010: 7.5%
- 2011: 7.0%
- 2012: 11.8%

+84%

Figures before NRI

(In million US$)
Phase 2: The move to Geoscience
Following Fugro Geoscience’s acquisition:

- Access to geoscience & reservoir expertise
- Reinforcement of our traditional seismic activities with assets & people

Overall, an integrated company, from seismic to geoscience
CGG:

- Equipment & Acquisition
- Processing & Imaging
- Reservoir characterization
CGG:

MEDECINE

Equipment & Acquisition

Processing & Imaging

Reservoir characterization
CGG:

Equipment & Acquisition

Processing & Imaging

Reservoir characterization

Airborne

Multi-physics

Closer to the reservoir engineer

MEDECINE
CGG:

Looking at the bigger picture

Equipment & Acquisition

Processing & Imaging

Reservoir characterization

Airborne

Multi-physics

Closer to the reservoir engineer

MEDECINE
CGG:

Looking at the bigger picture

Equipment & Acquisition

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Reservoir characterization

Airborne

Multi-physics

Closer to the reservoir engineer

Looking at the finer details

MEDECINE
CGG:

Looking at the bigger picture

Equipment & Acquisition
Processing & Imaging
Reservoir characterization

Looking at the finer details

Airborne Multi-physics

Closer to the reservoir engineer

MEDECINE

a new dimension
A focused sustainable strategy based on more than 80 years of experience

- Integrated into our corporate governance structure
- Fully compliant with local laws and regulations
- Based on a well-recognized HSE management system
- A structured and disciplined risk management process
- 130 HSE/SD operational correspondents worldwide
- Prevents and/or minimizes the footprint of our operations on the environment
- Furthers the training and personal development of our employees
- Contributes to the economic development of our « host countries »

CGG’s goal is to create value by optimizing the discovery of natural resources for the benefit of all of our stakeholders
Capital Market Day 2013
Business environment trends and action plan

Jean-Georges MALCOR
Oil prices at high level but OPEC spare capacity rising

- Healthy growth in oil supply
- Cost of marginal barrel still high
- OPEC budget constraints supportive of $100 price
- Shale oil production consistently above forecasts
- OPEC spare capacity averaging 6% of total production in 2015
High oil price and Capex constraint: An unusual scenario for our clients

- E&P Capex driven by cost inflation and non-conventionals
- Their challenge: generating sufficient cash flow both to fund Capex, dividend & share buy-backs
- Lower free cash flow could generate slower pace of spending growth

Majors: allocation of upstream free cash flows

Capex 2001-2015e

Sources: Rystad Energy, Morgan Stanley Research

Source: Wood Mackenzie
Favorable exploration trends for geoscience

- New frontier deepwater exploration: Eastern Canada, East India, Russian Arctic, Gabon, Brazil...
- Complex geological patterns
- Seismic only 3% of E&P spending
- High value for derisking and calibrating reserves

Greenfield project IRRs by theme

Source: Wood Mackenzie
Production remains challenging

- Reserve Replacement Ratio (RRR) still below 100% worldwide
- Drilling success rate decreasing
- Size of new fields getting smaller
- Sustained development of Enhanced Oil Recovery (EOR) needed to prevent high depletion rate (4-5%)

Source: Global Data

Calculation: 
\[
\text{Oil & Gas Reserve Replacement Ratio} = \frac{\text{Oil and Gas Revisions + Oil and Gas Extensions and Discoveries + Oil and Gas Improved Recovery}}{\text{Total Oil & Gas Production}}
\]

North Sea production by fields from 1974 to 2036

Source: Rystad Energy

Oil & Gas Reserve Replacement Ratio
Average top E&P companies

Source: Global Data
Calculation: 
\[
\text{78, 97}
\]
2013 Landing and Business update

Q4 Activity: lower than expected

- Large contracts delays in Acquisition impacting:
  - Q4 fleet Availability Rate revised around 80%; however strong Production Rate at 92%
  - Multi-client revenue
- Reduced land activity in the Lower 48 / Canada
- Multi-client after-sales below our target as clients are deferring spending decisions
- Other CGG businesses in line or above expectations

2013 landing

- 2013 EBIT expected between $400m-$420m
- Partial write-off of tangible and intangible assets to be recorded in our 2013 accounts, as a consequence of new Acquisition market conditions and fleet reduction
2013 Landing and Business update

However, very good recent commercial successes:

- **Marine:** Award of three large prefunded multi-client programs offshore Brazil (> 30,000 km²)
  H1 2014 fleet well covered: Q1-2014 at 90% and Q2-2014 at 60%

- **GGR:** Renewal of two subsurface imaging centers in France and Oman
  Opening of two new subsurface imaging centers in Thailand and Myanmar
  Significant data management contract awarded in Norway with the NPD

- **Sercel:** First two 508XT land acquisition systems orders expected shortly
  One full vessel equipped with Sentinel RD streamers
2016: Profitability & Cash

Tight cash management and debt reduction

Cost control
Tight control of G&A expenses and reduction of operational breakeven

Operational performance
Maintain focus on operational efficiency

Tight cash management
Tight management of Working Capital Requirement

Capex reduction
Tight monitoring of Capex in line with rightsizing of acquisition assets
Rebalanced business portfolio

Reformating and rebalancing of businesses
Rebalancing from cyclical and capital-intensive businesses to more profitable, less capital intensive and more cash generating businesses

Commercial efficiency
Accelerate partnerships and secure long-term contracts

Technology and innovation
Speed up introduction of new geoscience solutions
Moving forward to 2016: CGG vision for profitability and cash generation

- **Sercel**
  - Profitable growth driven by technology, volume and product mix

- **Acquisition**
  - Increased cash generation with reduced and repositioned high end fleet
  - Concentrate land on niche & « techno » markets and partnerships

- **Geology**
  - Growth through technological leadership in subsurface imaging & reservoir

- **Geophysics**
  - Expand Multi-client geoscience in key basins

- **Reservoir**
  - From seismic to reservoir integrated workflow
Technology roadmap

Thierry BRIZARD
Meeting the challenges of our customers

Accelerate new discoveries

Better understanding of the subsurface

- Find the areas of interest
  - Conventional
  - Unconventional

- Acquire better data
  - Seismic
  - Non Seismic

Better understanding of the reservoir

- Better processing & imaging
  - Seismic
  - Augmented

Enhance Oil Recovery from producing reservoirs

- Better Reservoir characterization
  - Seismic
  - Augmented

- Instrumentation closer to the reservoir
Meeting the challenges of our customers

*Accelerate new discoveries*

*Better understanding of the subsurface*

*Find the areas of interest*

*Conventional Unconventional*

*Geological knowledge*

*Enhance Oil Recovery from producing reservoirs*

*Instrumentation closer to the reservoir*

Robertson – Tellus™ The definitive play fairway database
Meeting the challenges of our customers

Accelerate new discoveries

Better understanding of the subsurface

Find the areas of interest

Enhance Oil Recovery from producing reservoirs

Conventional Unconventional

Seismic Augmented

Acquire better data & imaging

Better Reservoir characterization

Geological knowledge

Multiphysics pre-survey

Instrumentation closer to the reservoir

Instrumentation closer to the reservoir
Meeting the challenges of our customers

Accelerate new discoveries

Better understanding of the subsurface

Find the areas of interest
Conventional Unconventional

Geological knowledge Locate sweet spots Multiphysics pre-survey

Enhance Oil Recovery from producing reservoirs

Instrumentation closer to the reservoir

Colorado Shales – Central Alberta

- Fracture swarms are more likely to occur
- Aligned fractures are more likely to occur
- Hydraulic fracturing won’t work because the rock is too ductile
Meeting the challenges of our customers

**Accelerate new discoveries**

**Better understanding**

**Find the areas of interest**

- Conventional
- Unconventional

**Geological knowledge**

**Locate sweet spots**

**Multiphysics pre-survey**

**Identify target horizons**

**Enhance Oil Recovery from producing reservoirs**

**BETTER UNDERSTANDING OF THE SUBSURFACE**

- Instrumentation closer to the reservoir
- Better Reservoir characterization

**With RoqSCAN**

**ENRICHED DATA**

- Seismic Augmented
- Better processing & imaging

**LOG DATA**

- Seismic
- Augmented

**Find the areas of interest**

- Seismic
- Non Seismic

**Acquire better data**

**Better processing & imaging**

**LOG DATA ENRICHED DATA**

**Capital Market Day - Technology roadmap**
Meeting the challenges of our customers

Accelerate new discoveries

Enhance Oil Recovery from producing reservoirs

Conventional Unconventional Seismic Non Seismic

Geological knowledge Locate sweet spots Richer illumination

Multiphysics pre-survey Identify target horizons

Better understanding of the reservoir

Seismic Non Seismic

Acquire better data Better processing & imaging

Instrumentation closer to the reservoir

Finding the areas of interest

Better Reservoir characterization
Meeting the challenges of our customers

- Accelerate new discoveries
- Enhance Oil Recovery from producing reservoirs
- Better understanding of the subsurface
- Better Reservoir characterization
- Instrumentation closer to the reservoir

- Geological knowledge
- Locate sweet spots
- Identify target horizons
- Richer illumination
- Denser receiver sampling
- Very sparse
- Sparse
- Dense

- Find the areas of interest
- Conventional Unconventional
- Seismic Non Seismic
- Acquire better data
- Better processing & imaging

- Higher Definition
- Mid Definition
- Sparse
- Very sparse
Meeting the challenges of our customers

**Accelerate new discoveries**

- Better use of technology
- Find the areas of interest
  - Conventional
  - Unconventional
  - Seismic
  - Non Seismic

- Multiphysics pre-survey
- Geological knowledge
- Locate sweet spots
- Identify target horizons
- Richer illumination
- Electromagnetism
- Denser receiver sampling

**Enhance Oil Recovery from producing reservoirs**

- Better understand the reservoir
- Conventional vs. Unconventional
- Seismic vs. Non Seismic
- Find the areas of interest
- Acquire better data
- Better processing & imaging
- Better reservoir characterization

**Instrumentation closer to the reservoir**
Meeting the challenges of our customers

Accelerate new discoveries

Better understanding

Find the areas of interest
Conventional Unconventional

Geological knowledge Locate sweet spots

Multiphysics pre-survey Identify target horizons

Seismic Non Seismic

Richer illumination Electro Magnetism

Denser receiver sampling Gravi-gradiometry

Very high resolution of 0.2 mGal at 150 m

Enhance Oil Recovery from producing reservoirs

Better understanding of the reservoir

Seismic Augmented

Conventional Unconventional

Find the areas of interest

Locate sweet spots

Identify target horizons

Richer illumination

Denser receiver sampling

Electro Magnetism

Gravi-gradiometry

Better Reservoir characterization

Instrumentation closer to the reservoir

Capital Market Day - Technology roadmap
Meeting the challenges of our customers

**Accelerate new discoveries**

**Better understanding**

**Find the areas of interest**
- Conventional
  - Geological knowledge
  - Multiphysics pre-survey
- Unconventional
  - Locate sweet spots
  - Identify target horizons

**Seismic**
- Richer illumination
- Electro Magnetism

**Non Seismic**
- Denser receiver sampling
- Gravi-gradiometry

**Joint inversions**

**Microgravity contact**
- Seismic contact
- Resistivity contact

**Microgravity contact**

**Meeting the challenges of our customers**
- Accelerate new discoveries
- Better understanding
- Find the areas of interest
  - Conventional
    - Geological knowledge
    - Multiphysics pre-survey
  - Unconventional
    - Locate sweet spots
    - Identify target horizons
- Better understanding of the reservoir
  - Conventional Unconventional
    - Seismic Non Seismic
    - Acquisition & imaging
    - Better processing & imaging

**Instrumentation closer to the reservoir**

**Enhance Oil Recovery from producing reservoirs**

**Better Reservoir characterization**
- Seismic Augmented
Meeting the challenges of our customers

Accelerate new discoveries

Better understanding

Find the areas of interest

Conventional  Unconventional

Geological knowledge

Locate sweet spots

Identify target horizons

Multiphysics pre-survey

Richer illumination

Electro Magnetism

Joint inversions

Denser receiver sampling

Gravi-gradiometry

Geology to seismic

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Better processing & imaging
- Joint inversions
- Geology to seismic

Enhance Oil Recovery from producing reservoirs

Better understanding of the reservoir
- Seismic
- Augmented

Better Reservoir characterization

Instrumentation closer to the reservoir

- Jason & Hampson-Russell software suites

Meeting the challenges of our customers

Accelerate new discoveries

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Enhance Oil Recovery from producing reservoirs

Better understanding of the reservoir
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Better Reservoir characterization

Instrumentation closer to the reservoir

- Jason & Hampson-Russell software suites
Meeting the challenges of our customers

**ERGO**
Reservoir geometry database & knowledgebase

- Consistent structure
- Easy to access
- Industry focused
- Modelling examples
- Key references

Better understanding of the reservoir

### Instrumentation closer to the reservoir

- Seismic Augmented
- Better Reservoir characterization
- Jason & Hampson-Russell software suites
- Geology to reservoir

### Better understanding of the subsurface

- Enriched illumination
- Denser receiver sampling
- Electro Magnetism
- Gravimetric-gradiometry

### Joint inversions

- Geology to seismic

### Enhanced Oil Recovery from producing reservoirs

- Accelerate new discoveries
- Better understanding of the subsurface
- Find the areas of interest
- Better Reservoir characterization

### Meeting the challenges of our customers

- ERGO
- Reservoir geometry database & knowledgebase
Meeting the challenges of our customers

- Accelerate new discoveries
- Enhance Oil Recovery from producing reservoirs
- Better understanding of the subsurface

**Geological knowledge**
- Multiphysics pre-survey
- Locate sweet spots
- Identify target horizons

**Richer illumination**
- Denser receiver sampling

**Electromagnetism**
- Gravi-gradiometry
- Joint inversions

**Geology to seismic**
- Jason & Hampson-Russell software suites

**Instrumentation closer to the reservoir**
- Conventional Unconventional
- Find the areas of interest

**Seismic Augmented**
- Better Reservoir characterization
- Acquire better data
- Better processing & imaging

**Automated mineralogy**
- Geology to reservoir
Meeting the challenges of our customers

Accelerate new discoveries
Enhance Oil Recovery from producing reservoirs
Better understanding of the subsurface

Find the areas of interest
Conventional
Geological knowledge
Multiphysics pre-survey

Acquire better data
better processing & imaging
Joint inversions
Geology to seismic

Better Reservoir characterization
Seismic
Augmented
Jason & Hampson-Russell software suites
Geology to reservoir
Automated mineralogy

Instrumentation closer to the reservoir
Permanent monitoring

Recovery from producing reservoirs
Understanding of the reservoir
Locate sweet spots
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Meeting the challenges of our customers

Enhance Oil Recovery from producing reservoirs
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Meeting the challenges of our customers

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Meeting the challenges of our customers

Enhance Oil Recovery from producing reservoirs
Better understanding of the subsurface

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Recovery from producing reservoirs
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Meeting the challenges of our customers

Enhance Oil Recovery from producing reservoirs
Better understanding of the subsurface

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Geology to reservoir
Automated mineralogy

Instrumentation closer to the reservoir
Permanent monitoring

Recovery from producing reservoirs
Understanding of the reservoir
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Multiphysics pre-survey
Geological knowledge
Meeting the challenges of our customers

Accelerate new discoveries

Enhance Oil Recovery from producing reservoirs

Better understanding of the subsurface

Find the areas of interest

Conventional & Unconventional

Seismic & Non-Seismic

Geological knowledge

Multiphysics pre-survey

Locate sweet spots

Identify target horizons

Richer illumination

Denser receiver sampling

Joint inversions

Geology to seismic

Electromagnetism

Gravimetry

Gradiometry

Jason & Hampson-Russel software suites

Better Reservoir characterization

Seismic

Augmented

Geology to reservoir

Automated mineralogy

Permanent monitoring

Well acquisition
Meeting the challenges of our customers

Accelerate new discoveries
Enhance Oil Recovery from producing reservoirs

Better understanding of the reservoir

Find the areas of interest
Conventional
Unconventional

Geological knowledge
Multiphysics pre-survey

Identify target horizons
Denser receiver sampling
Gravimetry
Geology to seismic
Russell software suites
Automated mineralogy

Better reservoir characterization
Seismic
Augmented

A significant change in the dimension of CGG’s offering

Acquire better data
Seismic
Non Seismic
Better processing & imaging

Instrumentation closer to the reservoir
Permanent monitoring
Well acquisition

Better Reservoir characterization

Geoscience integrated solutions accelerating turnaround time and increasing cost efficiency
Capital Market Day 2013
Business roadmaps
Equipment
Profitable growth driven by technology & volume

Pascal ROUILLER
Capital Market Day - Equipment: Profitable growth driven by technology & volume

### Equipment division

#### Key Figures
(3Q 2013)

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
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<tbody>
<tr>
<td>Total sales</td>
<td>$728m</td>
</tr>
<tr>
<td>Number of employees</td>
<td>2,500</td>
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<tr>
<td>R&amp;D / Revenue</td>
<td>8.2%</td>
</tr>
<tr>
<td>Number of sites</td>
<td>20</td>
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#### Market Positioning
- Strong footprint in land, 70% market share in cable systems
- Strong footprint in marine, 95% market share in streamers
- Market-driven innovations
- Reliability of products, reactive customer support

#### Main products

- **Cable and wireless system:**
  - Unite

- **Streamer:**
  - Nautilus
  - Sentinel

- **Digital sensor:**
  - MaxiWave

- **Downhole:**
  - Nomad

- **Vibrator:**

#### 2013 Geographical YTD sales breakdown

- Europe: 43.0%
- Africa: 3.0%
- Middle East: 6.7%
- North America: 6.8%
- South America: 3.0%
- Asia: 7.0%
- China: 14.6%
- CIS: 15.2%
Sercel, the clear market leader with an unrivalled installed base

2/3 of worldwide land crews:
- 408UL/428XL: 3,500,000 channels
- Unite: 145,000 channels
- Vibrators: 900 Vibrators

2/3 of worldwide marine crews:
- Sentinel® streamers: 4,800 km (> 60 vessels)
- Nautilus®: 6,200 modules (15 vessels)
Sercel, the clear market leader with an unrivalled installed base

2013 Total Market

≈

$1.9bn

Land Market
Total ≈ $1.0bn
- Others
- Vibrators
- Geophones
- Cableless Systems
- Cable Systems

# 1 (70%)
# 2 (40%)

Marine Market
Total ≈ $0.9bn
- Others
- Navigation
- Source
- Streamer Positioning
- Streamers

# 1 (95%)
# 2 (33%)

Trend in seismic equipment market
Marine: Driven by technology and replacement

**Sentinel®, the leading streamer technology**
- Sentinel®, the only true solid cable with a unique acoustic performance, launched in 2006
- Sentinel® RD launched in 2012 (Reduced Diameter)
- Sentinel® MS, the only solid multi-sensor streamer open to the market, launched in June 2013

**Solid sustainable replacement market**
- 70% sales based on replacement or spread extension

---

**Sercel is the clear preferred supplier**
Part from proprietary systems, all the world’s vessels (except one) are equipped with the Sercel Sentinel® streamer
Land: Driven by technology and growth

More channels for higher resolution

- Continuous channel count growth, multiplied by 5 every 10 years
- 408 UL / 428 XL sales: 3,500,000 active channels
- 508XT announced in September 2013
Land: Driven by technology and growth

Mega-crews: What we already delivered

- 2009: 90,000 channels in the US
- 2012: 120,000 channels for 2 crews in Saudi Arabia
- 2012: 40,000 channels in Oman

In 2014-2016, we will target 6 to 9 mega-crews

- KUWAIT: 1-2 mega-crews, 100,000 channels/crew
- UAE: 1-2 mega-crews, 100,000 channels/crew
- OMAN: 2 mega-crews, 250,000 channels/crew
- SAUDI ARABIA: 2/3 mega-crews, 50 to 200,000 channels/crew (Request For Tender received)
508XT, a powerful response to clients’ needs

New X-Tech™ architecture
- Able to operate in cabled and in wireless systems
- Able to operate in real time or in autonomous mode

Increased productivity
- Down to: zero system downtime
- Up to: 1,000,000 channels
- Up to: 25% fewer people on a crew
- Up to: 100 times fewer batteries and 30% lighter

Improved data quality
- Mix of real-time data acquisition & autonomous mode with real-time QC
- Rapid data delivery, reducing survey cycle time
- QuietSeis™, next-generation MEMS offering record low instrument noise

Optimized HSE & sustainable development
The 508XT maximizes productivity by overcoming the limitations of current systems and guarantees data integrity
Sercel is an equipment manufacturer

- Business model highly sensitive to volume sold and product mix
- Higher electronic content leads to a higher operating margin
### Key Figures (3Q 2013)

<table>
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<tr>
<td>Total sales</td>
<td>$1,767m</td>
</tr>
<tr>
<td>Number of employees</td>
<td>3,000</td>
</tr>
<tr>
<td>Industrial CAPEX</td>
<td>$233m</td>
</tr>
<tr>
<td>Vessel availability / productivity rate</td>
<td>90.3% / 92.9%</td>
</tr>
</tbody>
</table>

### Market Positioning

- The largest Marine seismic fleet dedicated to high-end market
- The high-end Land acquisition player
- A leading Airborne player with 25-30% market share

### Asset Portfolio

**Marine**
- 18 3D vessels
  - 13 high-capacity 3D vessels (12+ streamers)
  - 5 mid-capacity 3D vessels (8-12 streamers)

**Land**
- 15 land crews including
  - 4 High-Channel-Count crews
  - 2 Arctic crews

**Airborne**
- 28 fixed-wing aircrafts
- 11 helicopters

---

Capital Market Day - Acquisition: The way forward
Airborne Acquisition: Split into two different markets

- Mining market highly cyclical and currently depressed
  - Restructuring plan launched to reduce the breakeven point
- Growing opportunities in the Oil & Gas market
Airborne Acquisition: Split into two different markets

- Get ready for the rebound in the Mining market
- Rebalance the revenue breakdown between Oil & Gas and Mining markets
  - Develop superior gravity solutions
  - Integrate gravity & magnetic data as a complement to seismic
  - Leverage with the strengths of the group

→ Target high single-digit margin
Land Acquisition: Strategic review ongoing

The Land situation:
- Ranked #1 in performance / Best image in the industry from a client perspective (as per Welling Report)
- An enabler for Sercel and Processing activities

BUT...
- Low margins / High risks / Capital-intensive business
- Activity showing a loss in 2012 & 2013

Strategic review ongoing for each regional market:
- **Latin America** Pulled out
- **Africa, Europe, Asia Pacific** Pulled out except for few profitable niches
- **North Africa** Technological playground when safe & profitable
- **North America** Refocused on Canada/Alaska & our MC activity
- **Middle East** Ongoing discussions to streamline our go-to-market & strengthen our local partnership
- **RoW** Opportunities for franchising / technology consulting model

Seabed GeoSolutions JV delayed ramp-up but strong potential
Marine Acquisition:
Increase in supply possibly balanced by vessel retirements

- 8% increase in supply in 2014 & in 2015 (no increase from CGG)
- 9 seismic vessels aged > 20 years in 2015 (if no retirements)
Marine Acquisition: Market demand, a contrasted pattern

Positive long-term fundamentals remain, with solid summer demand and increasing demand for technology...

- Sustained activity in traditional basins and new emerging basins ("frontier areas")
- Increasing demand for Broadband, Wide-Azimuth (WAZ), 4D surveys

... but limited pricing power...

- Relatively short backlog in front of high fixed costs
- High seasonality (25% of seismic fleet to be relocated during winter after North Sea season) and volatility (amplified by increase in contract size)

### % of the seismic fleet surveying in North Sea / Arctic

<table>
<thead>
<tr>
<th>Year</th>
<th>Summer</th>
<th>Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>29%</td>
<td>5%</td>
</tr>
<tr>
<td>2011</td>
<td>31%</td>
<td>7%</td>
</tr>
<tr>
<td>2012</td>
<td>33%</td>
<td>8%</td>
</tr>
<tr>
<td>2013</td>
<td>32%</td>
<td></td>
</tr>
</tbody>
</table>

### Breakdown of contracts size for Exclusive Marine surveys

- Over 30 M$: 6%, 26%, 4%, 14%, 14%
- 10 to 30 M$: 68%, 59%, 39%, 37%
- Below 10 M$: 29%, 59%, 47%, 37%
Marine Acquisition: Market demand, a contrasted pattern

Positive long-term fundamentals remain, with solid summer demand and increasing demand for technology...

- Sustained activity in traditional basins and new emerging basins ("frontier areas")
- Increasing demand for Broadband, Wide-Azimuth (WAZ), 4D surveys

... but limited pricing power...

- Relatively short backlog in front of high fixed costs
- High seasonality (25% of seismic fleet to be relocated during winter after North Sea season) and volatility (amplified by increase in contract size)

... in a context where CGG needs a high bid success rate

- Larger size of CGG fleet post integration of the recent 4 C-class vessels
- Cautious investment in Multi-Client

High-end vessels and fleet reformating are key for long-term financial performance
Marine Acquisition: Our industrial vision

Seismic vessels with 14x100 or 16x50 spreads, the right size

- Reduced productivity gains above 14 streamers
- Strong technical constraints above 16 streamers
- Widest spread in the industry towed by the Caribbean (8 x 160m x 12km)

Better to enhance the data content

- A long-term differentiator
- Better imaging, now & in the future
- More information available for reservoir characterization

Developing solutions through an integrated approach

- New & improved **Equipment**
- New **Acquisition** designs
- Cutting-edge **Processing**
- Finer **Reservoir characterization**
“Broadseis significantly increases the usable frequency content of the data, while the deep tow reduces exposure to swell and weather. The continuous recording and deblending technique suggested by Anadarko allows more flexibility when working with currents, permit faster recording speeds while allowing for longer records and a deeper structural image.”

Anadarko, 3D Fuerte survey, 2013

“Predicting lithology away from wells is more reliable with Broadseis™ data”

Shell, DEVEX, 2013

“We do not even consider conventional seismic anymore. BroadBand is what matters, and there is no way back.”

Leading E&P Operator, Norway, 2012

“My top management are saying BroadSeis is the ‘best thing since sliced bread’, I’m very keen to hear the latest”

Leading E&P Operator, UK, 2012

Leading-edge technologies
Marine Acquisition: CGG fleet early 2013

HIGH-END CAPACITY
12-20 streamers

Oceanic Sirius
20 Tow Points
Oceanic Vega
20 Tow Points
Geo Coral
16 Tow Points
Geo Caspian
16 Tow Points
Oceanic Endeavour
16 Tow Points
Alizé
16 Tow Points
Geo Caribbean
14 Tow Points
Oceanic Phoenix
14 Tow Points
Oceanic Champion
14 Tow Points
Viking Vision
14 Tow Points
Geo Celtic
12 Tow Points
Oceanic Challenger
12 Tow Points
Symphony
12 Tow Points

MID-END CAPACITY
8-12 streamers

Geowave Voyager
12 Tow Points
Viking Vanquish
12 Tow Points
Vantage
10 Tow Points
Viking
10 Tow Points
Geo Atlantic
10 Tow Points
Viking II
8 Tow Points
Geo Barents
8 Tow Points
Vessels in JV
Amadeus
8 Tow Points

20 vessels in open market & 1 in JV
Marine Acquisition: CGG fleet end of Q3-2013

HIGH-END CAPACITY
12-20 streamers

- Oceanic Sirius
  20 Tow Points
- Oceanic Vega
  20 Tow Points
- Geo Coral
  16 Tow Points
- Geo Caspian
  16 Tow Points
- Oceanic Endeavour
  16 Tow Points
- Alizé
  16 Tow Points
- Geo Caribbean
  14 Tow Points
- Oceanic Phoenix
  14 Tow Points
- Oceanic Champion
  14 Tow Points
- Viking Vision
  14 Tow Points

MID-END CAPACITY
8-12 streamers

- Geowave Voyager
  12 Tow Points
- Viking Vanquish
  12 Tow Points
- Vantage
  10 Tow Points
- Viking
  10 Tow Points
- Geo Atlantic
  10 Tow Points
- Viking II
  8 Tow Points
- Geo Barents
  8 Tow Points

Vessels in JV

- Amadeus
  8 Tow Points

18 vessels in open market & 1 in JV

Returned to owner or permanently converted to source vessel
Marine Acquisition: CGG fleet January 2014

HIGH-END CAPACITY
12-20 streamers

Oceanic Sirius
20 Tow Points

Oceanic Vega
20 Tow Points

Geo Coral
16 Tow Points

Geo Caspian
16 Tow Points

Oceanic Endeavour
16 Tow Points

Alizé
16 Tow Points

Geo Caribbean
14 Tow Points

Oceanic Phoenix
14 Tow Points

Oceanic Champion
14 Tow Points

Viking Vision
14 Tow Points

Vessels in JV

16 vessels in open market & 1 in JV

MID-END CAPACITY
8-12 streamers

Geowave Voyager
12 Tow Points

Viking Vanquish
12 Tow Points

Vantage
10 Tow Points

Viking
10 Tow Points

Geo Atlantic
10 Tow Points

Viking II
8 Tow Points

Geo Barents
8 Tow Points

Geo Celtic
12 Tow Points

Oceanic Challenger
12 Tow Points

Symphony
12 Tow Points

Returned to owner or permanently converted to source vessel

Temporarily converted to source vessel

Geo Atlantic
10 Tow Points

Viking II
8 Tow Points

Geo Barents
8 Tow Points

Amadeus
8 Tow Points
Marine Acquisition: CGG fleet January 2014

**HIGH-END CAPACITY**
12-20 streamers

- Oceanic Sirius 20 Tow Points
- Oceanic Vega 20 Tow Points
- Geo Coral 16 Tow Points
- Geo Caspian 16 Tow Points
- Oceanic Endeavour 16 Tow Points

- Alizé 16 Tow Points
- Geo Caribbean 14 Tow Points
- Oceanic Phoenix 14 Tow Points
- Oceanic Champion 14 Tow Points
- Viking Vision 14 Tow Points

**MID-END CAPACITY**
8-12 streamers

- Geowave Voyager 12 Tow Points
- Viking Vanquish 12 Tow Points
- Vantage 10 Tow Points
- Viking 10 Tow Points

- Geo Atlantic 10 Tow Points
- Viking II 8 Tow Points
- Geo Barents 8 Tow Points

**Vessels in JV**

- Amadeus 8 Tow Points

**Adaptation of the fleet to be continued**
Marine Acquisition:
Partnerships & long-term contracts to provide more visibility

- Long-term contract in Mexico
- JV in Vietnam
- Partnership in China
- Partnership in Russia
Capital Market Day 2013
GGR:
A sustainable long term growing performance

Sophie ZURQUIYAH
From Seismic… to Geology… to Reservoir

**GGR Yesterday**
- Multi-client Seismic data library
- Subsurface Imaging
- Hampson-Russell Reservoir Software

**GGR Today**
- Basin Data
- Data Management
- Multi-client Seismic Data Library
- Subsurface Imaging
- Jason
- Hampson-Russell

**GGR Tomorrow**
- Multi-client Geoscience data library
- Subsurface Imaging
- GeoConsulting
- GeoSoftware
- Data Management
GGR Division (not including Multi-Client activity)

Key Figures (3Q 2013)
- Total sales: $442m
- Number of employees: 3,350
- R&D / Sales: 3.6%
- Number of countries with GGR implantation: 36

Market Positioning
- Strong geosciences brands
- Technology and broad spectrum of technical expertise
- Quality of people, service attitude
- Footprint

Footprint per activity
- Subsurface Imaging:
  46 locations in 32 countries
- GeoConsulting / GeoSoftware:
  Presence in 23 countries
- Data Management Services:
  Presence in 9 countries

Strong expertise in GGR
- Master: 31%
- Bachelor: 27%
- PhD: 36%
- High School Diploma: 4%
- Other/ Technical / Secondary: 2%
CGG: New expertise in GGR
GGR: Our priorities looking forward

Multi-Client
Expand GoM StagSeis & be ready for 2015-16-17 large lease rounds
Extend our seismic data library into a geoscience data library
Diversify portfolio

Subsurface Imaging
Maintain growth & technology leadership

GeoConsulting
Expand position worldwide & offer integrated projects

GeoSoftware
From seismic to simulation

Data Management
Expand all capabilities globally

Highly synergetic activities
CGG worldwide seismic library

- CANADA / ALASKA: 21,000 km²
- US Lower 48: 40,000 km²
- NORTH SEA: 97,000 km²
- CASPIAN: 13,000 (2D) km
- AFRICA: 11,000 km²
- BRAZIL: 135,000 km²
- GoM: 225,000 km²
- ASIA: 6,000 (2D) km
- INDONESIA: 6,100 km²
- AUSTRALIA: 6,100 km²

Total Sales (3Q 2013): $420m
Net Book Value (3Q 2013): $803m
Cash Capex (3Q 2013):
- Marine $370m
- Land $50m
Capital Market Day - GGR: A sustainable long term growing performance
Expanding from a Seismic to a Geoscience multi-client data library

GLOBAL GEOLOGICAL KNOWLEDGE BASE

GEOPHYSICAL LIBRARY

VALUE-ADDED PRODUCTS

Targeted multi-disciplinary approach

STRONGER PORTFOLIO
GREATER VALUE FOR THE CLIENT
Subsurface Imaging Market Leadership: 2013 Welling Report

- BEST PROBLEM-SOLVERS: 63%
- BEST IMAGE QUALITY: 61%
- TRUSTWORTHY & UPFRONT about problems: 52%
- EXTRA MILE TO FIND SOLUTIONS themselves: 51%
- Makes IMPROVEMENTS FROM LESSONS learned from past experience: 54%
- Supplier with THE MOST UP-TO-DATE ADVICE: 61%
- BEST UNDERSTANDING of how acquisition issues affect data processing and seismic interpretation: 56%
- FASTEST turnaround time: 49%

*Raw percentaged data – Total Sample
Subsurface Imaging Market Leadership: 2013 Welling Report

*Raw percentaged data – Total Sample
Subsurface Imaging:
Gulf of Mexico seismic data density doubles every ~ 3 years

Market

- Higher data density
- More powerful imaging algorithms
- Increased computing power

Our value proposition

- Highly trained and educated people
- Best-in-class technology
- Strong client focus
GeoConsulting: Expand position worldwide

- Exploration
- Geologists
- Remote Sensing Scientists
- Geophysicists
- Petrophysicists
- Geoscientists

- Production
- Reservoir Engineers
- Economists

- Appraisal
- Development

- Powered by HAMPSON-RUSSELL, JASON, ROBERTSON
GeoConsulting: Offering integrated projects

- Petroleum play exploration & evaluation
- Integrated geophysics, geology and geochemistry studies
- Full field static and dynamic modeling, history matching and production planning
  - Addressing all geographies and environments, including unconventionals, deepwater, frontier areas
GeoSoftware: From seismic to simulation

Worldwide market penetration
- All geographies
- NOCs, IOCs, Independents, small E&P companies

Offering all options
- All functionalities in an easy-to-use package
- Integrated seismic to simulation workflow
Data Management: Expand all capabilities globally

- Develop unique comprehensive data management service offering
  - Integrating access from core to production data
- Enhance the value of assets & accelerating decision-making capabilities
- Leverage unique breadth & depth in seismic & well data management expertise
- Work with key corporate, governmental & legislative client base
  - Upskilling data & information management for a range of problems
Conclusions

- Business context is favorable to GGR for continued profitable growth

- We capitalize on a unique combination of geophysical, geological and reservoir information and expertise to set new industry standards

- Our expertise and data around basins & plays will enable us to develop more proactive strategies and offer our clients access to integrated data sets

- Our GeoConsulting and GeoSoftware business lines will provide focus for organic growth as well as a home for future company acquisitions

- Our People are key to future growth and for maintaining our long-term technical leadership
Financial implications

Stéphane-Paul FRYDMAN
Vision for the next three years including the combined impact of:

- The **repositioning and reformatting** of CGG’s exposure on the Acquisition markets
- The **change in production mix** between Contract and Multi-Client, given notably the 2014-2016 prospects for key Multi-Client basins
- The favorable market trends for organic growth for Equipment and GGR Data Services

**Conventional assumptions for 2016 Pro-forma Outlook**

- Marine contract prices: same as 2013 conditions
- Operated fleet capacity c. (25)% reduced compared to the year-end 2013 reference
Business model

- Profitability driven by volumes, absorption of manufacturing fixed costs
- Land: 508XT ramp-up to address the expected mega-crew market
- Marine: market push driven by new technology (Sentinel RD, Sentinel MS) and equipment replacement

Hypothesis

- “1.5” mega-crews ordered; when by the New ARGAS:
  - Fully booked in revenue and in cash, as acquired by a third party
  - Elimination in due proportion at the EBIT level, as the New ARGAS is 49% owned by CGG
- Intra-Group production (marine mainly): c. 10% of total sales

Conventional assumptions for 2016 Pro-forma Outlook

- EBIT margin > 28%
- Contribution to Group revenue: back to 30%
- Eliminated profit related to internal sales: c. 45% (Gross Margin)
Acquisition Division: The way forward

Business model
- The right Marine fleet: critical size, high-end, flexibility, long-term contracts
- The right Land business models: highly productive acquisition, partnerships, continuity of operations
- The right Airborne fleet: rebalanced between Oil & Gas and Mining markets

Hypothesis
- Business line breakdown within Acquisition: Marine 80% / Land & Airborne 20%
- Reformatting impact: at iso-market conditions, higher selling prices
- Intra-Group production: 25% of the fleet capacity corresponding to 20% of total Division revenue

Conventional assumptions for 2016 Pro-forma Outlook
- EBIT margin: high single-digit figure
- Contribution to Group revenue: below 35% (versus 43% in 2013)
- Eliminated operating profit related to Intra-Group production: c. 15% (Gross Margin)
GGR: Multi-Client boosted by after-sales ramp-up

Business model
- Marine: focus on key Multi-Client basins
  - Gulf of Mexico, Brazil, North Sea, West Africa
  - In 2015-2017, reap the benefits of our 2012-2014 StagSeis spending
- Land: extension of our shale footprint in North America

Hypothesis
- 2015 and onwards, MC Cash Capex back to c. $400m, 70%+ pre-funded
- New multi-client revenue breakdown:
  - Lower pre-funding, as a direct consequence of lower MC Capex
  - 40% pre-funding revenue / 60% after-sales revenue
- Depreciation rate at c. 65%, leading to a stable MC Library Net Book Value

Conventional assumptions for 2016 Pro-forma Outlook
- EBIT margin > 25%
- Contribution to Group revenue: around 16%
GGR: A sustainable long term growing performance

Business model
- Subsurface Imaging: Retention of skilled people and tight monitoring of computing power to address exponential volumes of data and algorithm efficiency
- GeoConsulting & GeoSoftware: Expected synergies with other data services (SI) and data offering (MC)
- Capex intensity: mainly R&D spending

Hypothesis
- Growth based on a c. 5% Headcount net increase
- Intra-Division production (MC GoM mainly): c. 15% of Subsurface Imaging capacity

Conventional assumptions for 2016 Pro-forma Outlook
- EBIT margin > 20%
- Contribution to Group Revenue: up to 20%, leading the GGR Division above 35%
2016 “Pro-Forma” Outlook

- 2016 “Pro-Forma” revenue above $4bn
- 400 basis point EBIT margin improvement
- Group Cash Generation boosted beyond EBIT improvement by lower Industrial and MC Cash Capex

*Other GGR: SI, GeoSoftware, GeoConsulting and DMS
Financing Strategy

Status by September-end 2013

- Net Debt at $2.3bn = 51% Equity = 3.1 LTM Free EBITDA
- 4.5 year average maturity / 4.85% average Cash Interest on mid-term debt

Strategic guidelines

- Aggressive on leverage
- Conservative on maturity umbrella
- Mitigation cash cost of the debt

Mid-Term 2016 target

- Net Debt to EBITDA < 1.5
- Net Debt to Free EBITDA < 2
Conclusion

Jean-Georges MALCOR
Strengthening an integrated model

**Equipment**
- Generate sustained replacement revenue through a large installed base
- Boost incremental demand with new technologies (508\textsuperscript{XT}, Sentinel MS)
- Secure award of large mega-crews
- Maintain technological edge ahead of competitors

**Acquisition**
- Provide new integrated high-end acquisition solutions (BroadSeis/BroadSource, StagSeis) to meet complex geological challenges
- Reformat the fleet to address global and regional markets
- Refocus land acquisition on niche & “techno” markets and partnerships
- Rebalance Airborne towards oil and gas markets

**GGR**
- Build and diversify large regional geoscience multi-client library
- Maintain leadership edge through sustained innovative technologies and algorithms
- Develop an integrated workflow
- Hire, train and retain top employees to sustain organic growth
The integrated model at work: Recent business examples

**Mexico**
- Project in progress with Marine Acquisition
  - Subsurface Imaging
  - GeoConsulting

**Saudi Arabia**
- Project awarded with Sercel
  - Land Acquisition
  - Subsurface Imaging
  - GeoSoftware
- Project tendered with Sercel
  - Land Acquisition
  - Airborne Acquisition
  - Subsurface Imaging
  - GeoConsulting

**West Africa**
- Project tendered with Airborne Acquisition
  - Multi-Client
  - GeoConsulting
  - Data Management

**India**
- Project completed with Subsurface Imaging
  - GeoSoftware
  - GeoConsulting

**China**
- Project awarded with Subsurface Imaging
  - GeoSoftware
  - GeoConsulting
Clear strategy boosting CGG profitability

2010-2012: Performance plan
- Significant improvement in Marine performance
- Fleet modernization, cost reduction
- Technology and commercial differentiation

2012-2013: Move to Geoscience
- Successful integration of Fugro Geoscience activities
- Solid industry recognition of our subsurface imaging reputation
- Creation of GeoSoftware and GeoConsulting
- Integration of the 4 modern C-class vessels
- Creation of Seabed GeoSolutions

2014-2016: Profitability & Cash
- Repositioning on most profitable segments
- Rebalancing of activity portfolio
- Cost reduction and controlled Capex
- Tight cash management and debt reduction

An innovative and fully integrated geoscience company with increased profitability and sustained cash flow generation