



Technologies & Solutions

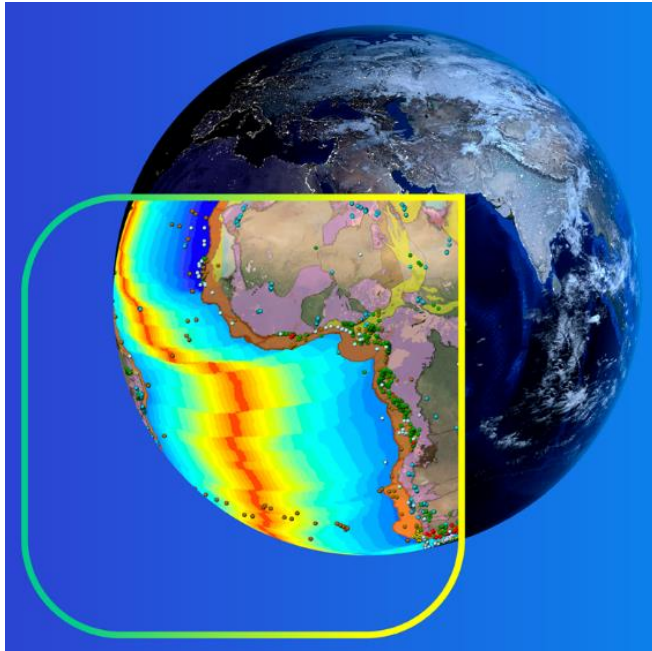
Providing unique perspectives on our planet

March 2023

cgg.com



A global technology and HPC leader



SEE THINGS DIFFERENTLY

Providing a comprehensive range of data, products, services and solutions for complex digital, energy transition, natural resource, environmental and infrastructure challenges



INNOVATION



PEOPLE



QUALITY



SOCIAL
RESPONSIBILITY



HSE
EXCELLENCE

Our values



We are problem solvers

Curious and passionate about constantly advancing science and technology to discover new insights, innovations and solutions for all our stakeholders



We are open

Always inclusive and believing good ideas can come from anyone, anywhere



We are responsible

Caring deeply about the Earth and doing the right thing, always acting safely and with integrity



We are driven to go beyond expectations

Continuously delivering outstanding service for our clients





Our ESG commitments

OUR SUSTAINABILITY CONTRIBUTION

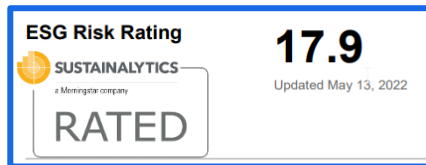
Energy companies' CO₂ footprint reduction: more accurate drilling locations to avoid hazards and optimally target reservoirs

Energy companies' internal efficiency: expertise & HPC resources & digital platform to optimize decisions process

Energy transition: supporting the transition to a lower carbon future

Environmental science: improving awareness of local and global environmental changes

OUR ESG RATINGS



#2 among the Energy Services

#1-3 in Oilfield Services

OUR CARBON NEUTRALITY STATEMENT



CGG will achieve net zero by 2050

Aligned with our longstanding commitment to act responsibly and minimize the impact of our activities on the environment, in every sector of our business, we pledge to reach net zero emissions by 2050 in scopes 1 & 2 of the greenhouse gas (GHG) protocol

GHG emissions Scope 1+2 (K tons CO ₂ eq)	2020: 53 Kt 2021: 45 Kt 2022: 41 Kt	50% reduction by 2030 90% by 2050
% Low emissions energy mix (total kwh consumption Scope 2)	2020: 31% 2021: 36% 2022: 51%	50% in 2030 90% in 2050 <i>or sooner depending on availability and prices</i>
Power usage efficiency (3 main centers)	2020: 1.33 2021: 1.35 2022: 1.42	<= 1.2 by 2030



Our leadership



Sophie Zurquiyah
CEO



Peter Whiting
Geoscience



Dechun Lin
Earth Data



Emmanuelle Dubu
Sensing and Monitoring



Agnès Boudot
HPC and Cloud Solutions



Jérôme Serve
Finance



Eduardo Coutinho
Group General Counsel



Jérôme Denigot
Human Resources



Hovey Cox
Marketing, Sales
and Communications



Emmanuel Odin
Sustainability



Financial overview: 2022 full year



Revenue
\$928 m
UP 3%* Y-O-Y

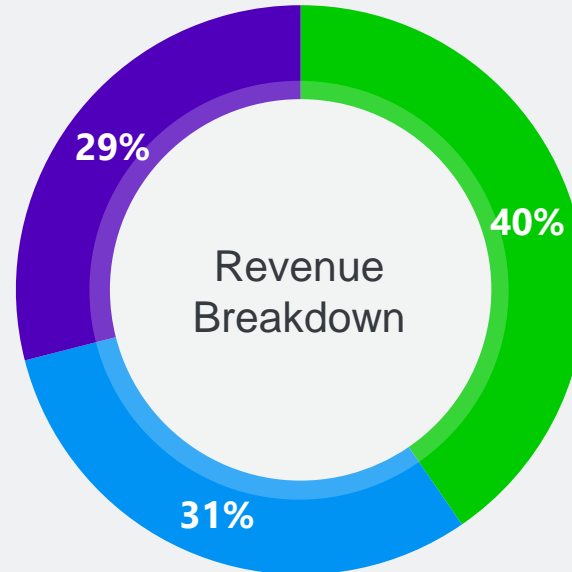


Adjusted
EBITDAs
\$395 m
a 43% margin



Liquidity
\$398 m

Sensing &
Monitoring
\$269 m

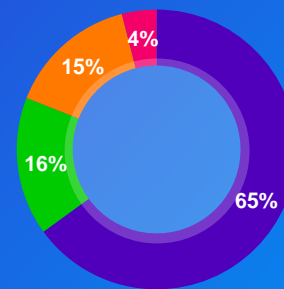


Earth Data
\$375 m

Geoscience
\$284 m

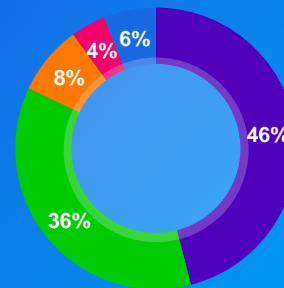


Global services & expertize



Staff allocation by activity

- Operations
- Support
- R&D
- Sales



Staff allocation by Division

- Sensing & Mon.
- Geoscience
- HPC & Cloud
- Earth Data
- Support

Geoscience

25 Locations Globally
70% post graduate degrees
27% PhDs



Our perimeter

OUR STRENGTHS

Remarkable data & technology

Unique Earth data library, imaging, geoscience and digital technologies

Outstanding people & performance

Ingenuity, diversity and expertise driving innovation and exceeding expectations

Exceptional ESG commitments

Enabling CGG and our clients to be more efficient, effective, responsible and sustainable

OUR CORE BUSINESSES



Geoscience

Established leader in subsurface imaging, geology and geoscience services



Earth Data

The industry's most technically advanced seismic data and geologic studies in the world's key locations



HPC & Cloud Solutions

Nearly 70 years of pioneering computing technology for high-end Earth science, data science and digital solutions



Sensing & Monitoring

Established leader in seismic equipment, downhole gauges and innovative structural monitoring solutions

2022 new businesses: Key achievements



Digital

- HPC and Cloud test pilots, building up opportunities for 2023
- Launch of construction of a new UK HPC center
- Partnership with 2CRSI for joint business development and sales
- Several data transformation pilots and full-scale project with bp



Energy Transition

- Several screening/characterization projects for mineral exploration
- First multi-client project in North America for mining industry
- Integrated CCUS data packages in North Sea and US GoM
- ~ 20M\$ sales of data for CCUS applications – North Sea and Australia



Infrastructure Monitoring

- 3 monitoring projects in France, including a stadium
- 1 pilot monitoring of a cable-stayed bridge in Houston with TX DOT
- Acquisition of Geocomp – a US expert in geotechnical engineering and infrastructure monitoring



New businesses
percentage of
2022 total segment
revenue



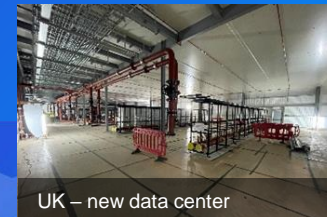
HPC and Cloud Solutions

HPC

- Supporting CGG's global Subsurface Imaging services
- Providing access to highly-optimized HPC resources and digital platform, plus consulting services
- Construction of new UK HPC center in 2023

Cloud Services

Secure and efficient access to our exceptional HPC resources for geoscience and beyond on the secure CGG Cloud



3 compute hubs

- UK, Houston, Singapore

1 lab for testing and development for new businesses

- Massy



Geoscience Ecosystem



Subsurface Imaging

Unmatched expertise, advanced geoscience & digital algorithms and excellent service in every image



Geology & Engineering

Leading geological and reservoir services and consultancy for natural resource development



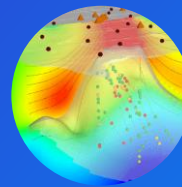
Energy Transition

Applying our geoscience and digital expertise to geothermal, CCUS, critical mineral and environmental analysis and monitoring



Data Hub

Maximizing the value of data to improve business decisions with expert data transformation services and technology



Multiphysics

Expert analysis and interpretation of multi-domain geophysical data for natural resources and environmental applications



Earth Observation

Intelligence from imagery for energy, mining, engineering, environment and defense



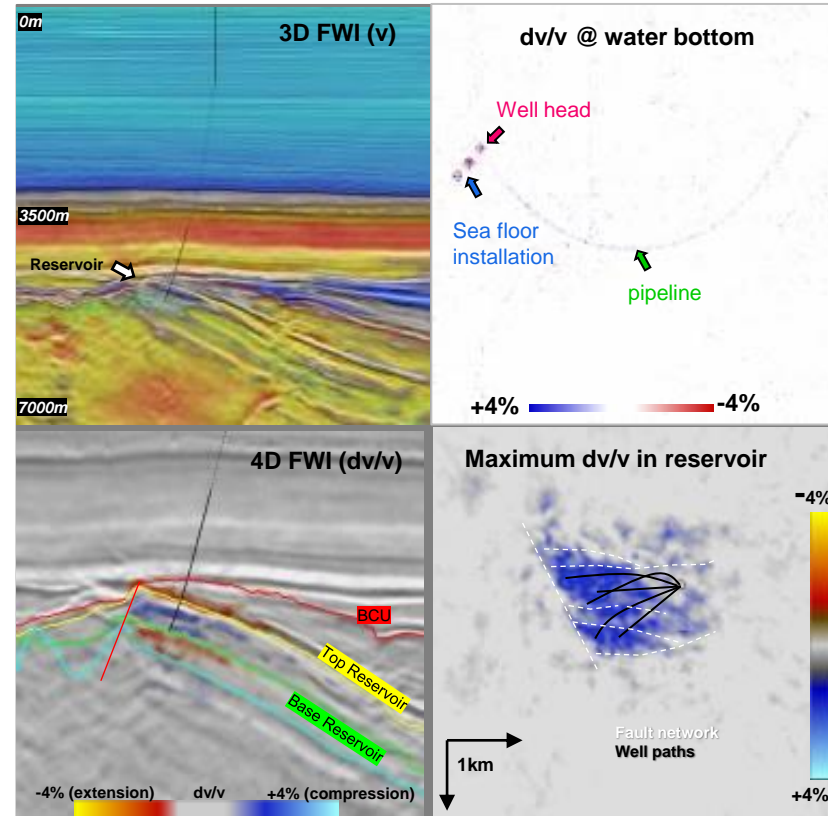
GeoTraining

Bringing together the full breadth of CGG's capabilities to provide comprehensive learning path programs

Geoscience continues to advance FWI technology

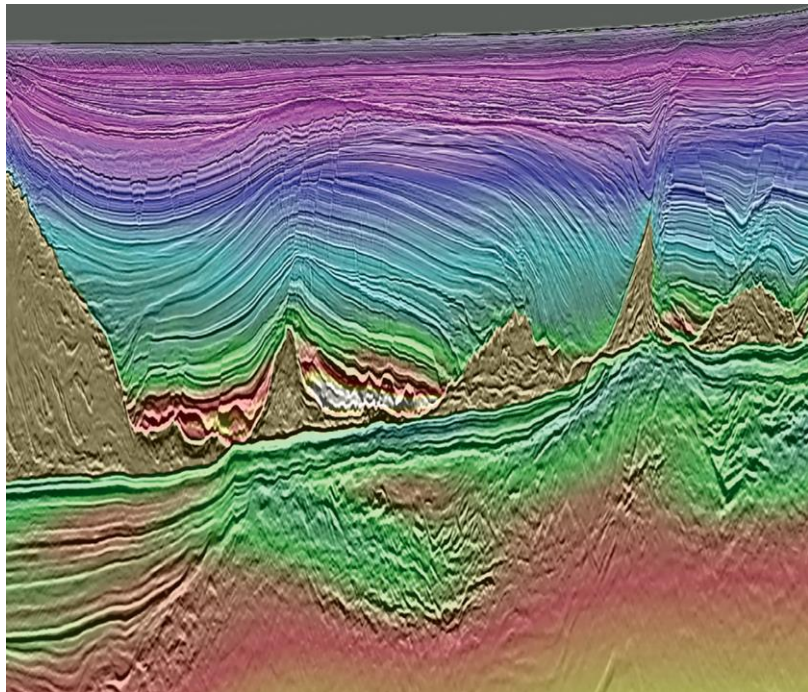
Best-in-class results around the world for reservoir imaging and characterization

- Most advanced seismic imaging with pioneering FWI technology
- More accurate physics for better focusing and higher signal-to-noise ratio
- Time-lapse FWI helping to delineate reservoir compartmentalization based on accurate velocity change detection over time with full wavefield data



4D 20Hz FWI suggesting compartmentalization in depleted North Sea reservoir

Earth Data



TLFWI reimagining highlights pre-salt reservoirs, Santos Basin, Brazil

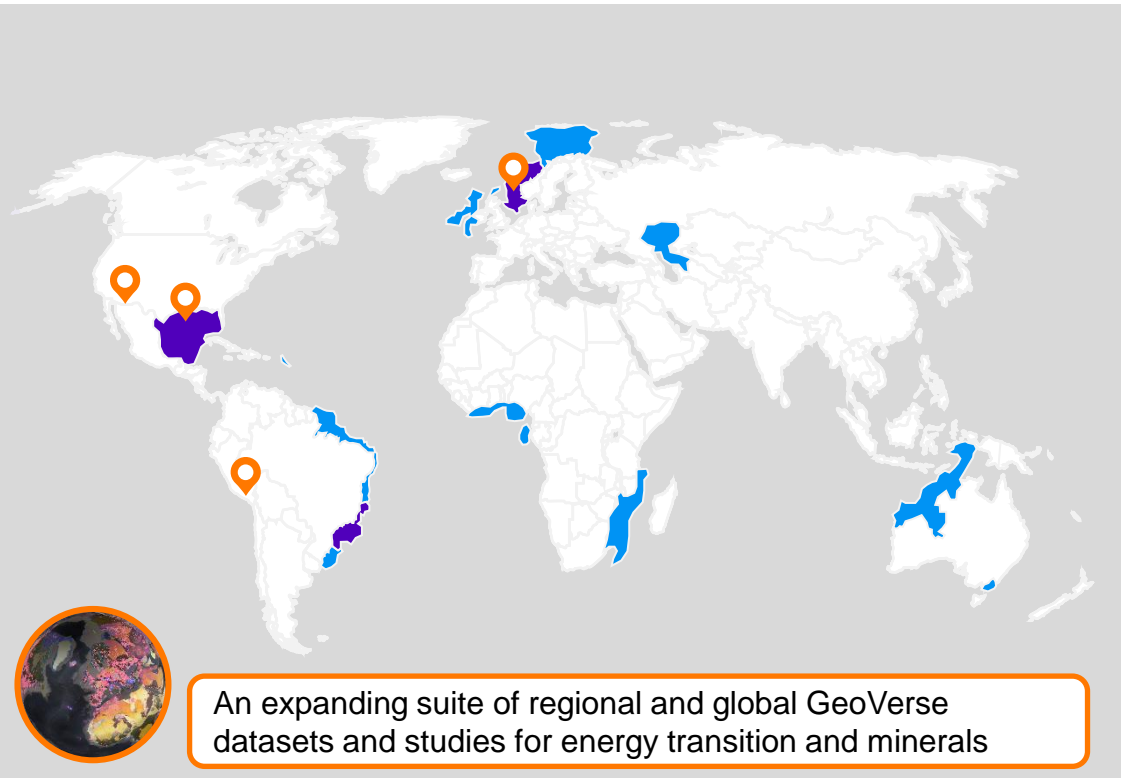
The most recent and advanced data in the world's key basins and frontiers

- The highest quality seismic data library
- GeoVerse analytics-ready Earth data
- Versal unified seismic data ecosystem

➤ **The right data, in the right
place at the right time**



An evolving suite of Earth Data products



Core Basins

- Gulf of Mexico, Brazil pre-salt, North Sea
- High-end 3D seismic, OBN and reimagining for near-field exploration, reservoir development and production



Developing

- Australia, Africa, Equatorial Brazil, Northwest Europe and Barents Sea
- 3D seismic and integrated geoscience studies



Energy Transition & Mining Studies

- CO₂ storage studies, GOM and North Sea
- Southeast Arizona mineral exploration integrated database
- Global geothermal resource assessments
- Paleo-salar Lithium study, South America

Digital solutions enrich Earth Data offering

Versal



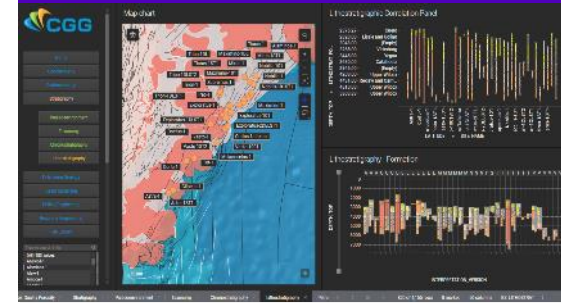
Unified seismic data ecosystem
offering the vast majority of the
world's multi-client seismic data
CGG | TGS | PGS | SLB

GeoVerse



A global integrated geological
database ready for licensing

GeoWells



Advanced multi-discipline well
data available in GOM (Mexico),
Brazil pre-salt basins and Norway



**BUILDING AN ECOSYSTEM AND GLOBAL DIGITAL DATABASE
FOR A NEW GENERATION OF MULTI-CLIENT PRODUCTS AND SERVICES**

Our Sercel offerings



Sercel designs and manufactures high-tech solutions for subsurface exploration. Capitalizing on its world-leading position in the seismic acquisition industry, Sercel also provides innovative solutions for structural and earthworks monitoring, defense and energy transition.

- Full range of onshore, offshore and downhole products
- Industry benchmark and market leader
- Unequalled product reliability and customer support

> IMAGING THE DEPTHS



A diversified Sercel scope



Oil & Gas

Seismic solutions for imaging and monitoring the subsurface and production monitoring gauges



Energy Transition

Seismic solutions for subsurface imaging and monitoring of geothermal, CCS, critical minerals and offshore wind



Structural Monitoring

Sensors and monitoring solutions for infrastructure



Earth Monitoring

Microseismic earthquake monitoring solutions



Defense

Custom-engineered marine acoustics and cable solutions

Sensing & monitoring: Update



Oil & Gas

Seismic land and marine solutions for imaging subsurface



Structural Monitoring

Sensors and monitoring solutions for infrastructure



Defense

Custom-engineered marine acoustics and cable solutions

Land

- Strong deliveries in North America and North Africa
- Deliveries of WiNG wireless node with QuietSeis™ sensor

Marine

- Finalized delivery of a major GPR300 OBN order
- Streamer business still relying on section replacements and repairs

Downhole tools

- Artificial lift gauges very active in the North American market
- Memory gauges activity steady

Beyond the Core

- Structural health monitoring: First commercial projects secured on several structures in the USA
- Acquisition of Geocomp, a US expert in geotechnical engineering and infrastructure monitoring



THANK YOU