WELCOME

BOOTH TALKS

TECHNICAL PAPERS

KEY CONTACTS

CGG OVERVIEW

IMAGE 2022

August 28 – September 1

SEE THINGS DIFFERENTLY

CGG

WELCOME TO IMAGE 2022!

Please join us this year in Houston to learn about our latest advances in industry-leading geoscience, data science and Earth data that help efficiently and responsibly solve complex digital, energy transition and natural resource challenges.

Our experts will be presenting papers in the technical program featuring the latest seismic imaging advancements and recent case studies. Highlights include elastic full-waveform inversion (FWI), FWI imaging and ocean bottom node (OBN) imaging.

While on the exhibition floor, make sure you stop by CGG booth # 1019. We have theater presentations from our experts and spectacular highlights from our multi-client Earth Data library on display. Don't miss our featured Lunch & Learn and Happy Hour presentations on key topics including data transformation, FWI technology and seismic imaging.

OUR BOOTH TALKS - CGG BOOTH #1019

MONDAY 29TH

10:30 AM — **How the West was won: Imaging complex geology in the Permian Basin with land FWI**
Alan Bai

11:00 AM — **Upskill for a new energy future**
Jeremy Palmer

12:30 PM — **Lunch & Learn: Reservoir quality in 13,000 snapshots: Applying machine learning to rock images**
Matt Fry

2:30 PM — **GeoWells Gulf of Mexico: Interpretations hidden by the data**
Ceri Davies

3:00 PM — **Extracting the value from seismic with integrated reservoir characterization**
Inna Tsybulkina

4:30 PM — **Happy Hour: Enhancing salt model resolution and subsalt imaging with elastic FWI**
Jiawei Mei

TUESDAY 30TH

10:30 AM — **Mitigating offshore environmental risk with SeaScope oil spill detection and monitoring**
Will Jeffrey

11:00 AM — **Integrated approaches to developing self-sourcing, self-sealing stratigraphic prospects**
Bleddyn Davies

12:30 PM — **Lunch & Learn: Unlocking Suriname shallow water potential with advanced imaging**
Bei Hu

2:30 PM — **Data transformation: Powered by technology, guided by SMEs**
Matt Fry and Chin Hang Lun

3:00 PM — **GeoWells Brazil: Observations from borehole images**
Ceri Davies

4:30 PM — **Happy Hour: How the West was won: Imaging complex geology in the Permian Basin with land FWI**
Alan Bai

WEDNESDAY 31ST

10:30 AM — **Enhancing salt model resolution and subsalt imaging with elastic FWI**
Jiawei Mei

11:00 AM — **Upskill for a new energy future**
Jeremy Palmer

11:30 PM — **Integrated geoscience for the screening and monitoring of CO_2 storage sites**
Fabien Allo

CGG

TECHNICAL PAPERS (1/3)

MONDAY 29TH

8:25 AM

An integrated approach to develop a self-sourcing, self-sealing stratigraphic prospect for the Hanifa Formation, offshore Bahrain

Bleddyn Davies
INT 1 - Geological and Geophysical Interpretation - International Basins: Exploration and Prospecting 1

10:20 AM

Estuarine facies but no estuary: Sandstone body geometries in transgressive coastal settings

Gary Nichols
SILIC 2 - Shallow Marine Sedimentary Systems - The Link between the Land and the Deep Sea 1

1:20 PM

Characterization and simulation of transverse noise waves of a multi-sensor solid streamer

Viktor Smirnov
ACQ P1 - Acquisition and Survey Design - Novel Marine Acquisition

2:35 PM

Improving subsalt images using FWI and FWI imaging: A streamer case study at Big Foot

Weihong Fei
FWI P1 - Full Waveform Inversion - Methods 1

TECHNICAL PAPERS (2/3)

10:20 AM — **One more stride forward in Thunder Horse subsalt imaging with elastic FWI**

Bunmi Elebiju

FWI P3 - Full Waveform Inversion - Elastic 1

11:35 AM — **Pushing the boundary of WAZ streamer data for subsalt imaging: A case study in deepwater Mexico Campeche**

Yi Chen

FWI 3 - Full Waveform Inversion - Applications 1

1:45 PM — **High-resolution FWI of converted-wave data — A case study from the Edvard Grieg field**

Per Eivind Dhelie

FWI 4 - Full Waveform Inversion - Applications 2

1:45 PM — **Land surface-related multiple attenuation based on wave-equation deconvolution**

Gordon Poole

SGS 3 - Special Global Session - New Advancements in Seismic Imaging: Insight from the Middle East

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2:10 PM — **Elastic FWI application to a land data set in the Middle East**

Anna Sedova

SGS 3 - Special Global Session - New Advancements in Seismic Imaging: Insight from the Middle East

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2:10 PM — **Assessing FWI imaging's potential to tackle illumination issues and internal multiples in the Brazilian pre-salt**

Cyril Dolymnyj

FWI 4 - Full Waveform Inversion - Applications 2

4:05 PM — **Revisiting the Brazilian Equatorial Margin with FWI and its impact on interpretation in an exploratory frontier**

Diego Costa

FWI 5 - Full Waveform Inversion - Applications 3

4:30 PM — **Unlocking the potential of WAZ data for subsalt imaging using FWI: A case study in the Perdido area**

Vivek Vandrasi

FWI 5 - Full Waveform Inversion - Applications 3

TECHNICAL PAPERS (3/3)

WEDNESDAY 31ST

8:25 AM **FWI for the complex Walker Ridge salt province using streamer data**

Dorothy Ren
FWI 6 - Full Waveform Inversion - Applications 5

9:15 AM **High-resolution seismic imaging of shallow karstified carbonate overburden offshore Indonesia**

Xiaobo Li
FWI 6 - Full Waveform Inversion - Applications 5

11:10 AM **Joint designature of data with a diversity of sources**

Shuki Ronen
ACQ 2 - Acquisition and Survey Design - Marine Acquisition 2

2:10 PM **Towards more accurate reservoir imaging using FWI: An OBN case study at Trion**

Zhen Wang
FWI 8 - Full Waveform Inversion - Methods and Applications 1

THURSDAY 1ST

2:15 PM **FWI Imaging: full-wavefield imaging through full-waveform inversion**

Zhiyuan Wei
W-3: FWM (Full Wavefield Migration) or FWI Imaging: Exploring New Concepts of Seismic Imaging

10:45 AM **Elastic FWI for large impedance contrasts**

Zedong Wu
W-17: What's Next for FWI and its Derived Products?

CGG

Joe Zhou

VP of Technical and Business Development, Earth Data

Joe has 20 years' industry experience, with more than 20 publications in SEG, EAGE, and many others. His technical contributions have been mostly focused on depth imaging, broadband processing and OBC processing technologies. He started his career as geophysicist with Veritas DGC in 2001, and he later relocated to Singapore as processing supervisor in 2007, becoming processing manager in 2013 and leading the development and deployment of high-end technologies. In 2017, he moved to Perth to take the role of Australia Imaging Manager and APAC Regional Technology Manager for CGG. Joe moved back to Houston on 2019 to join the CGG's multi-client new ventures team as VP of Technical and Business Development and is responsible for providing technical support and expanding the CGG's multi-client footprint in frontier and emerging basins.

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@ Connect with Joe

Rongxin Huang

VP, US Imaging

Rongxin joined CGG in 2009 after obtaining a Ph.D. in Physics from The University of Texas at Austin. Over his 13-year tenure at CGG, besides completing numerous successful production imaging projects, Rongxin has also been key to CGG's technology development in OBN 3D and 4D imaging, and most recently TLFWI, FWI imaging, and elastic TLFWI technologies. Rongxin is now VP US Imaging, where he oversees CGG's subsurface imaging business in the US and continues to be active at the frontline of technology development.

in

@ Connect with Huang

CGG

Rik Brooymans

Technical Integrated Projects Manager,
Earth Data

Rik works as a project manager within CGG's Earth Data (formerly Multi-Client) group, with oversight over projects and products in the Minerals & Mining and Geothermal sectors, as well as the Multiphysics Data Library. Rik joined CGG in 2001 as a seismic data processor in its Calgary office and subsequently moved through its Houston and Aberdeen offices before taking on the role of regional center manager in Oman. In 2017 he returned to Houston and joined the Earth Data team, working first on CGG's multi-client geology products and then moving to his current position in early 2021.

in

@ Connect with Rik

Ceri Davies

Digital Geology Data Manager,
Earth Data

Ceri joined CGG in 2010 and has more than 10 years' experience in the CGG Geology Division, now part of Earth Data. In his current role of Digital Geology Manager, he oversees the GeoVerse™, GeoWells and geological studies portfolio. Ceri completed his undergraduate degree in Geophysics with Geology and his doctoral studies on the Earth's Magnetic Field during the Cretaceous Normal Superchron, both at the University of Liverpool, United Kingdom. Based in Houston, he focuses his time working with domestic and international clients in various sales, business development and project management roles.

in

@ Connect with Ceri

CGG

Cheryl Oxsheer

Sales Manager, Earth Data Americas

Cheryl started her career with Western Geophysical, progressing from onshore seismic data processing to data management and on to sales for onshore multi-client surveys. She joined CGG in 2007 managing accounts and business development for onshore multi-client data, and now manages CGG Earth Data for the Permian Basin, one of the most prolific oil-producing regions in the United States, spanning over 86,000 square miles. Cheryl also manages accounts for the Power River Basin in Wyoming.

in

@ Connect with Cheryl

Karim Assem

Account Manager, Earth Data Americas

Part of CGG's Brazil multi-client sales team, Karim has worked for CGG for more than 10 years, with 15 years of industry experience. After receiving his geomatics engineering degree, he started his career working offshore on a 3D seismic team. His experience includes 3D marine seismic acquisition and Gulf of Mexico multi-client sales.

in

@ Connect with Karim

CGG

Jeremy Palmer

Technical Manager, GeoTraining

Jeremy joined CGG's GeoTraining in 2020 and is responsible for the technical geophysical aspects of CGG's GeoTraining courses. His background in geology and geophysics helps him oversee the integrated nature of the course material. He has over 25 years' experience in mining geology and seismic processing, with projects ranging from shallow hazard site surveys to complex salt pre-stack depth migration. Throughout his career Jeremy has maintained an interest in developing the skills and expertise of others both technically and personally, with an emphasis on leadership. He volunteers as a STEM ambassador working with local schools to encourage students to study Science Technology Engineering and Maths (STEM) subjects.

in

@ Connect with Jeremy

Tom Davenport

Technical Business Development Manager, Geoscience

Prior to his current position, Tom led CGG's business development for digitalization throughout North America, providing integrated and structured subsurface datasets that enable users to efficiently discover all data, overcome subsurface challenges and reduce cycle time. With a background in geology, he joined CGG in 2014 as business development manager for its seismic reservoir characterization group in Abu Dhabi and Houston.

in

@ Connect with Tom

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Matthew Fry

Senior Geoscientist, Data Hub

Matt's work focuses on the rapid extraction and harmonization of data feeding into data analytics. He joined CGG over three years ago and is a petroleum geochemist by background.

in

@ Connect with Matthew

Kyle Manley

Business Development Manager, CCS and Energy Storage

Kyle responsibilities include growing CGG's business in CCUS and Energy Storage in the Americas. Prior to joining CGG, he spent 14 years at ExxonMobil in a variety of roles within the midstream and chemicals organizations. His final position at ExxonMobil was in the Low Carbon Solutions organization as part of the team developing CCS and hydrogen businesses. As Infrastructure Lead, in addition to advising projects globally, he managed technical and commercial development of the transportation segment (pipelines) associated with ExxonMobil's Houston CCS Hub, including CO_2 and blue hydrogen. Kyle is a mechanical engineer with an MBA from Washington University in St. Louis.

in

@ Connect with Kyle

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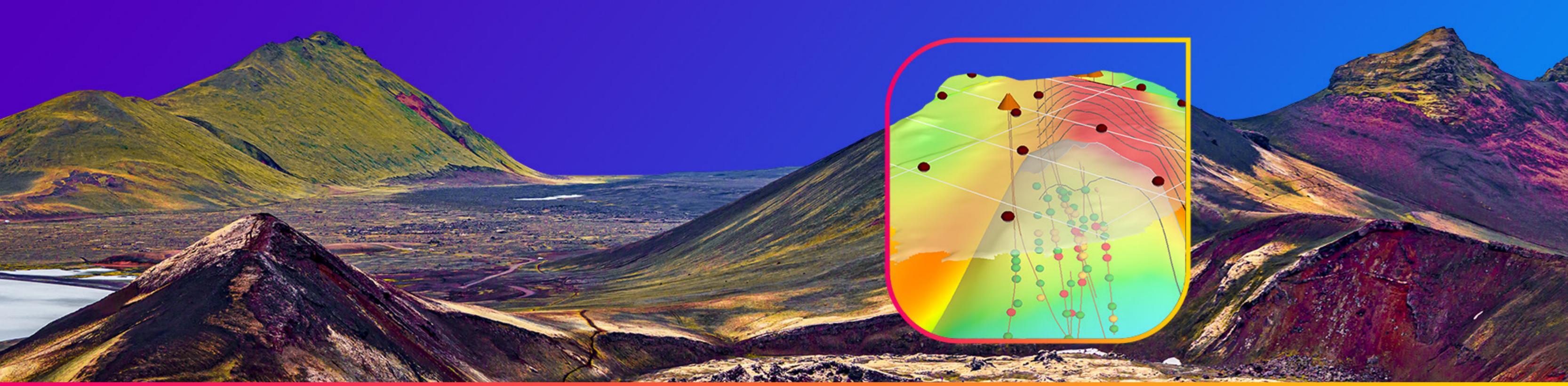
TECHNOLOGIES & SOLUTIONS

PROVIDING UNIQUE PERSPECTIVES ON OUR PLANET

Understand and solve complex digital, energy transition, natural resource, environmental, and infrastructure challenges

SEE THINGS DIFFERENTLY

CGG

Subsurface Imaging   Geology & Engineering   Satellite Mapping   Multiphysics   GeoTraining   HSEQ
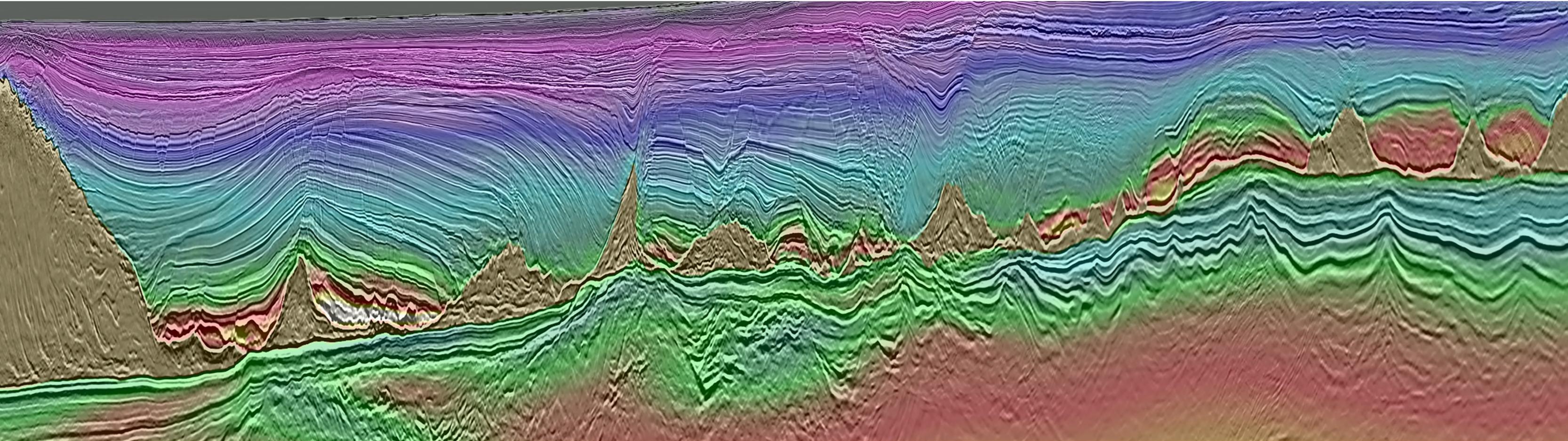
GEOSCIENCE TECHNOLOGY

Our proven geoscience technology and expertise across digital sciences, geophysics, geology & engineering, satellite mapping and multiphysics and our unique digital Earth Data library support the discovery and development of natural resources, while bringing greater subsurface insight for key areas of focus for the energy transition, such as CCUS, geothermal and critical minerals.

CGG Overview

Subsurface Imaging　　Geology & Engineering　　Satellite Mapping　　Multiphysics　　GeoTraining　　HSEQ
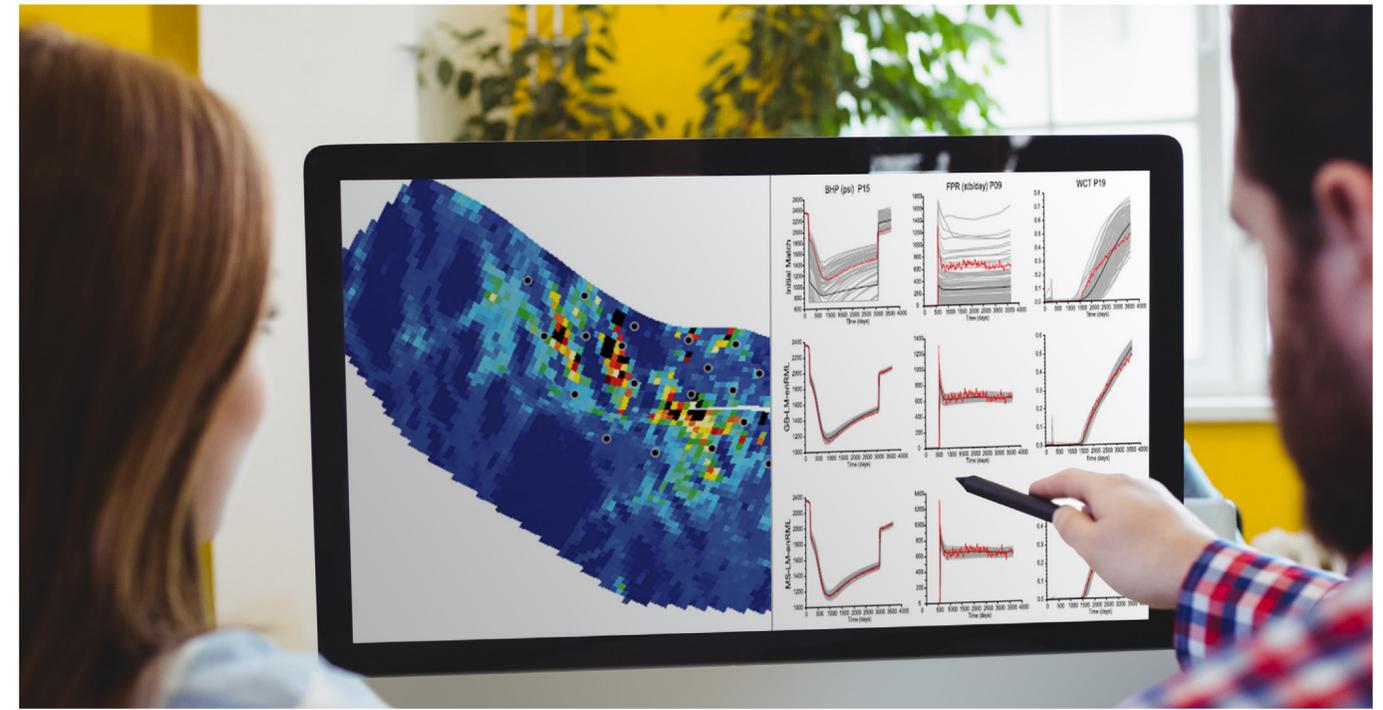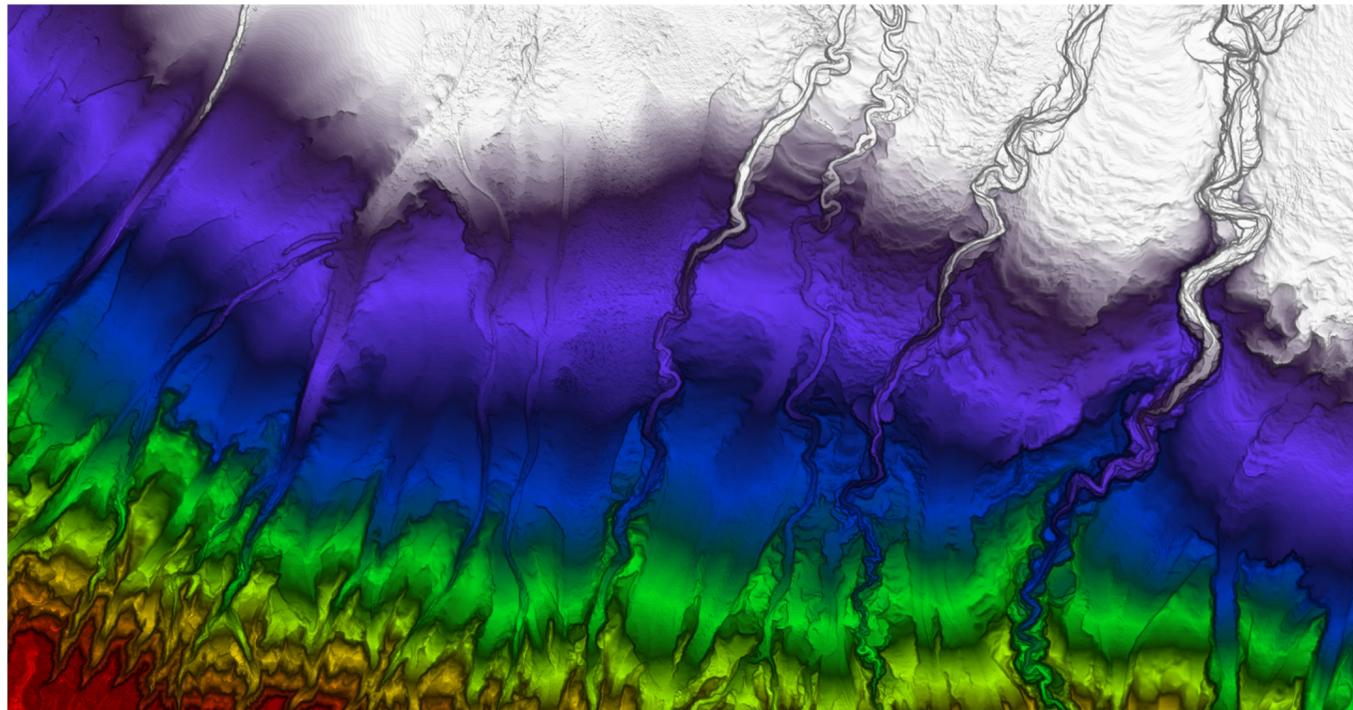

SUBSURFACE IMAGING

We are recognized leaders in advanced imaging and our experts are constantly pushing the boundaries to discover new innovations. Our global network of centers provides region-specific expertise, outstanding service and remarkable technology in every image.

GEOLOGY & ENGINEERING

Our Geology & Engineering experts provide valuable insight for natural resource exploration and development, and support geothermal, CCUS and environmental programs for the energy transition.

Subsurface Imaging   Geology & Engineering   Satellite Mapping   Multiphysics   GeoTraining   HSEQ
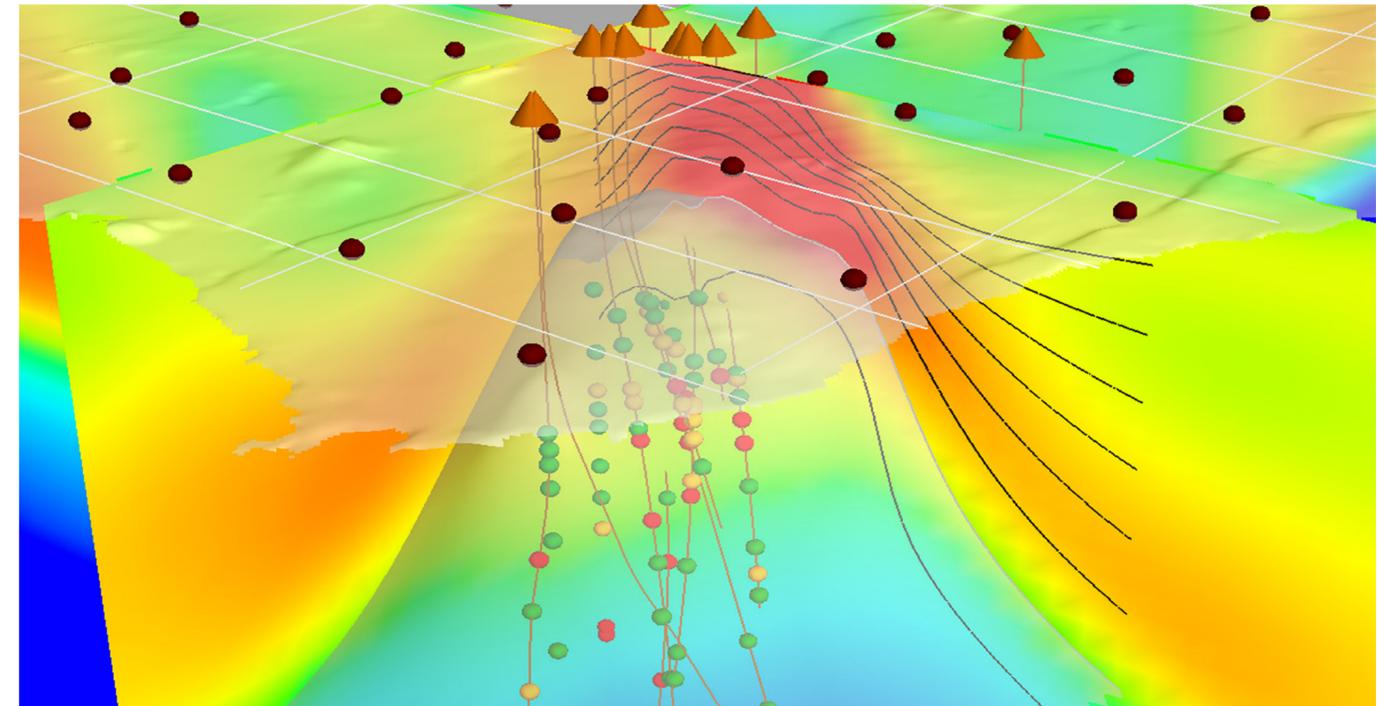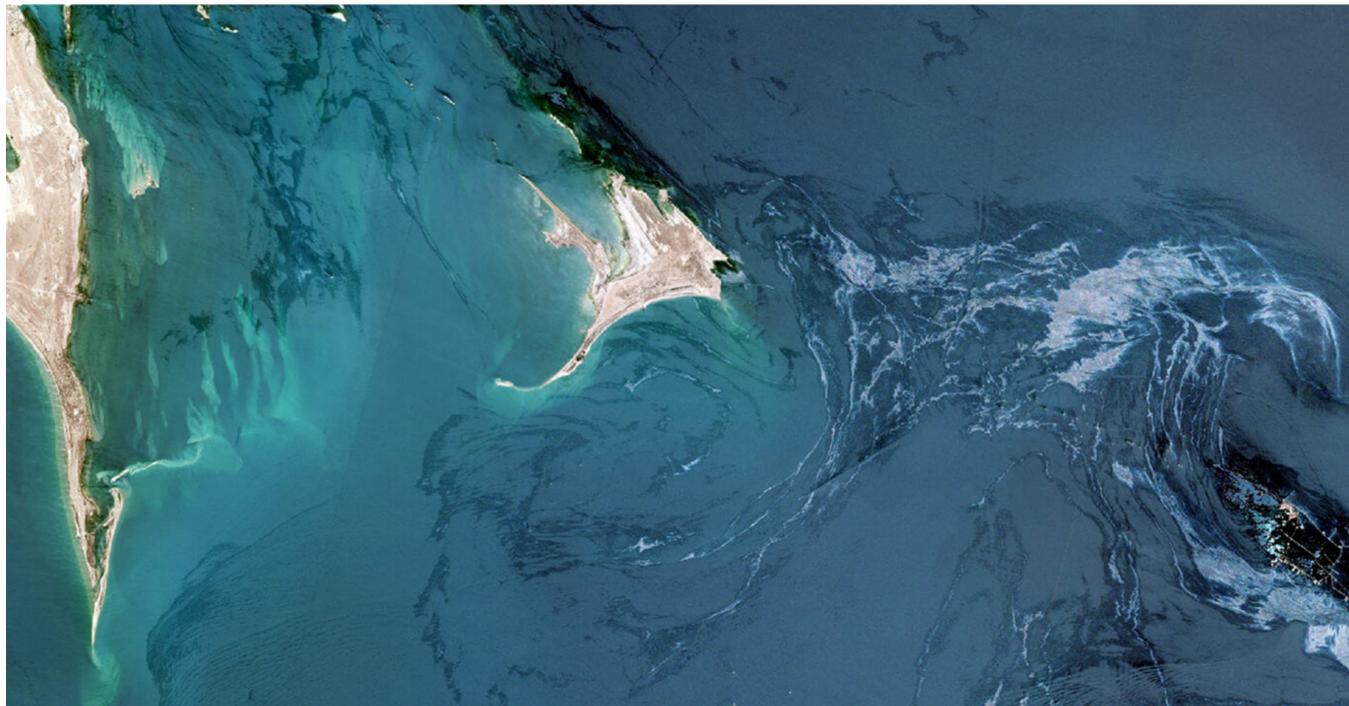

SATELLITE MAPPING

We harness the unique capabilities of Earth observation satellites to address a diverse range of challenges faced by the energy, mining, engineering, environment and defense sectors.

MULTIPHYSICS

We provide expert Earth modeling solutions using multi-domain data and our industry-benchmark **Geotools**™ software and 3D multiphysics inversion algorithms to resolve natural resource exploration and development challenges.

GEOSCIENCE TECHNOLOGY ▸ EARTH DATA LIBRARY ▸ SENSING & MONITORING ▸ DIGITAL SCIENCES ▸ ENERGY TRANSITION ▸ MONITORING & OBSERVATION

Subsurface Imaging   Geology & Engineering   Satellite Mapping   Multiphysics   GeoTraining   HSEQ
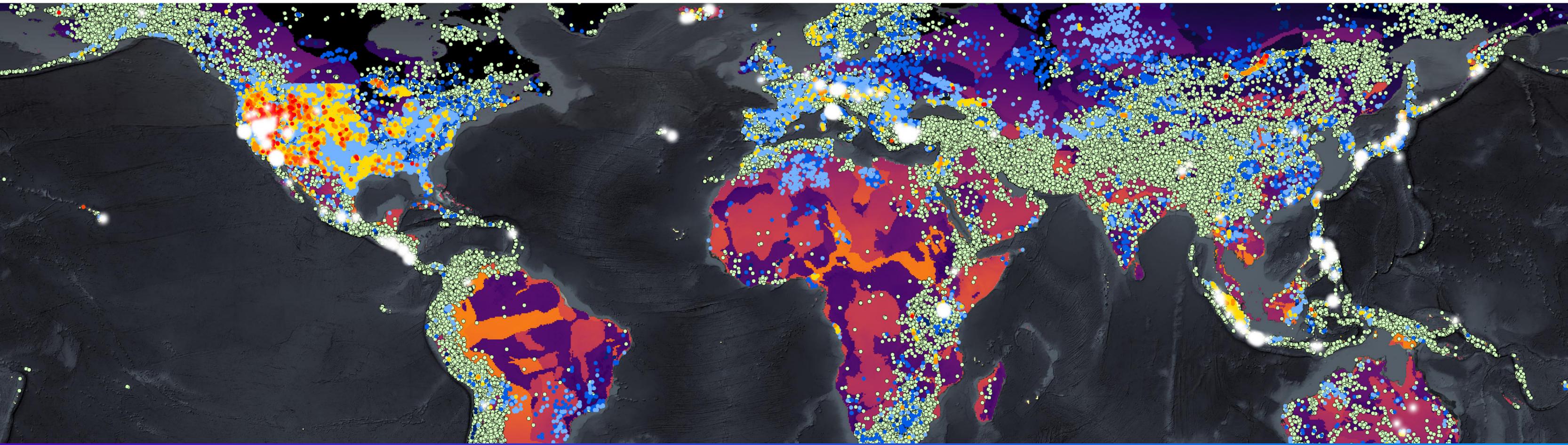
EARTH DATA LIBRARY

Our Earth Data ecosystem gives clients access to the data they need for a growing range of natural resource development, energy transition and environmental applications. It features the best high-end seismic data in key basins, **GeoVerse**™ digitally transformed geoscience data, satellite imagery and environmental data, along with our unique taxonomy, global cloud services and data platform.

CGG Overview

Subsurface Imaging   Geology & Engineering   Satellite Mapping   Multiphysics   GeoTraining   HSEQ
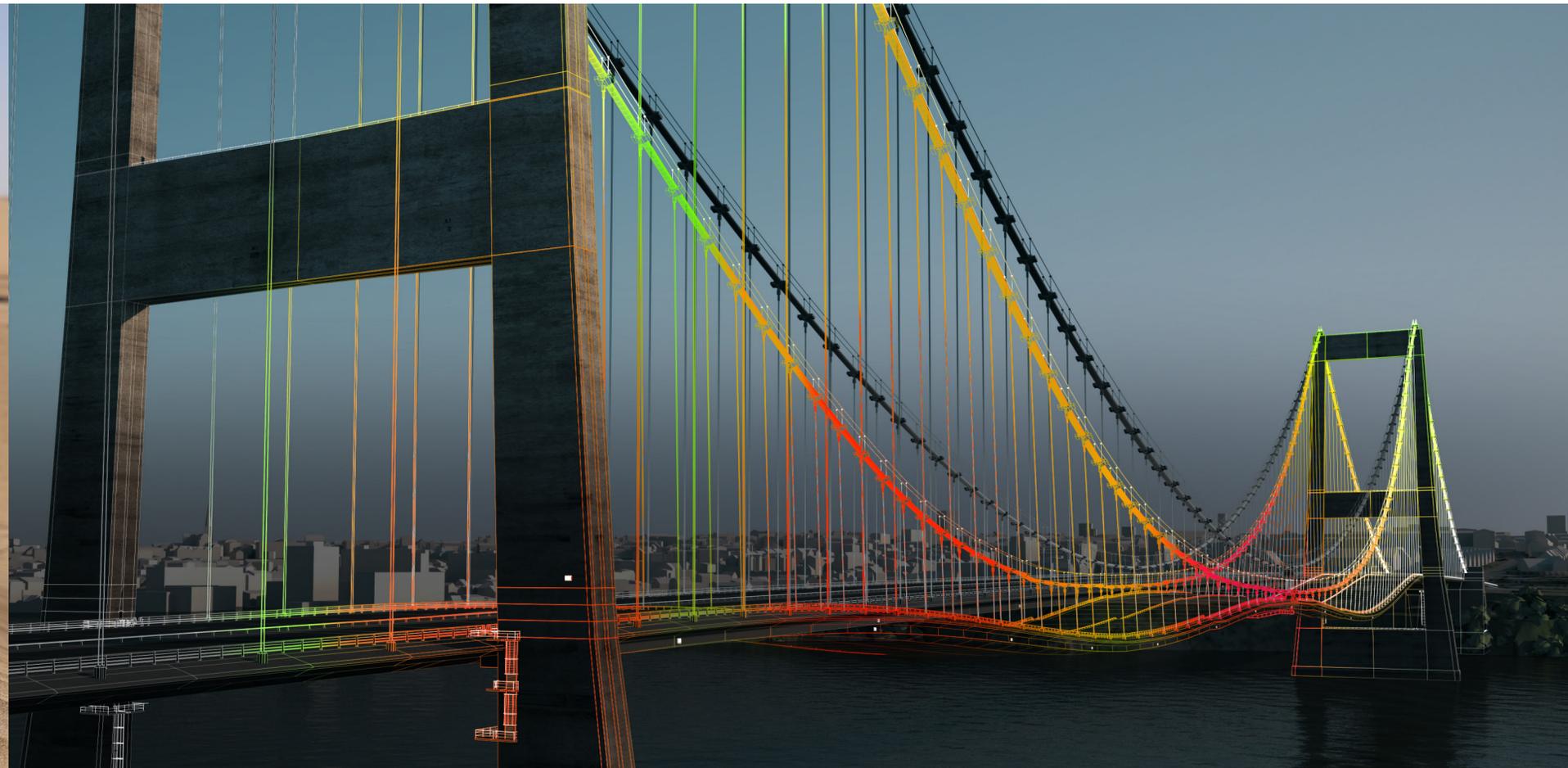

SENSING & MONITORING SOLUTIONS

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 monitoring, defense and underwater acoustics applications.

CGG Overview

Subsurface Imaging   Geology & Engineering   Satellite Mapping   Multiphysics   GeoTraining   HSEQ
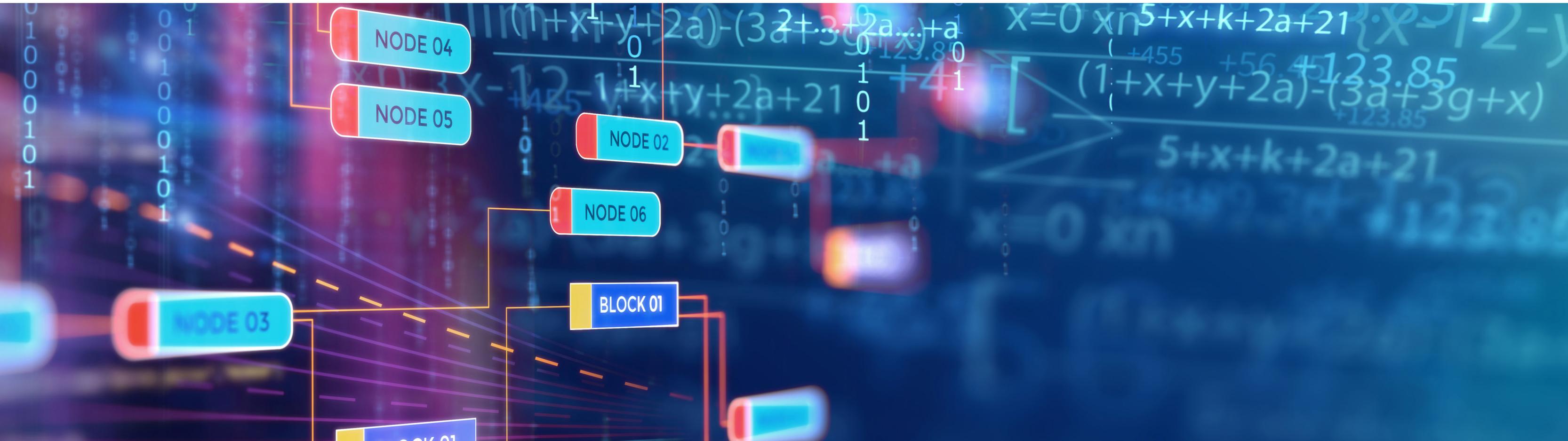
DIGITAL SCIENCES

Our expertise, specialized HPC and digital technologies support advanced and secure cloud-based HPC workflows, expert geoscience data transformation and AI, machine learning and data science services. Today, our HPC supports over 700 users with 300 petaflops of compute power and 240 petabytes of storage.
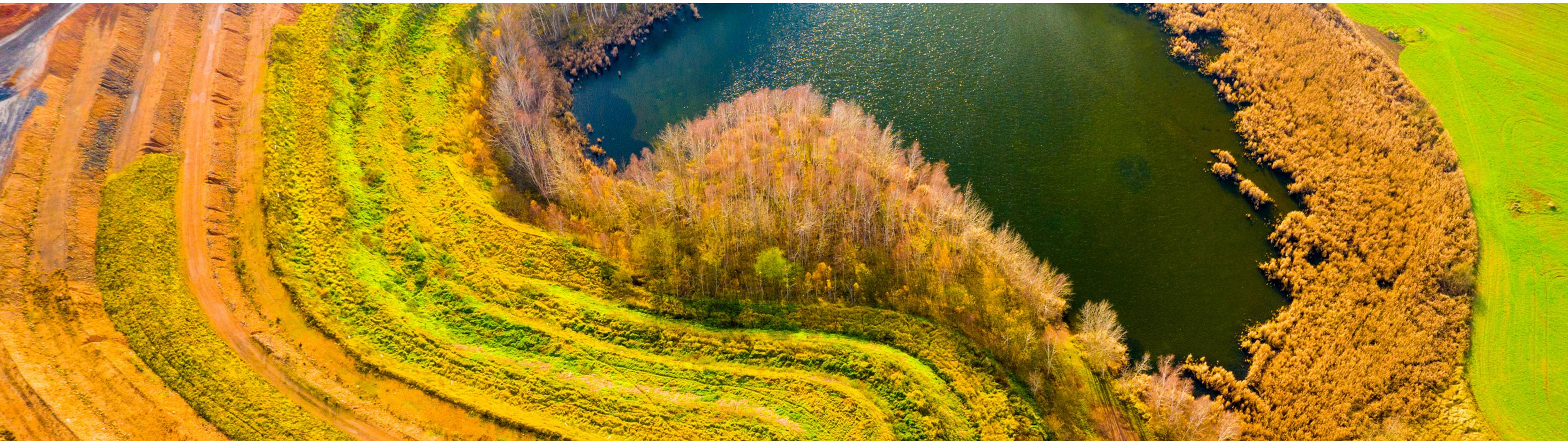
ENERGY TRANSITION & ENVIRONMENT

We offer technologies, data, and services for energy transition challenges, including Geothermal expertise from 150 projects and global resource studies, subsurface knowledge and regulatory insight for CCUS and Energy Storage projects and intelligence across the Minerals and Mining lifecycle.

Our rapidly growing portfolio of Environmental Science solutions includes environmental analytics and monitoring for ESG, energy transition and pollution applications.

CGG Overview
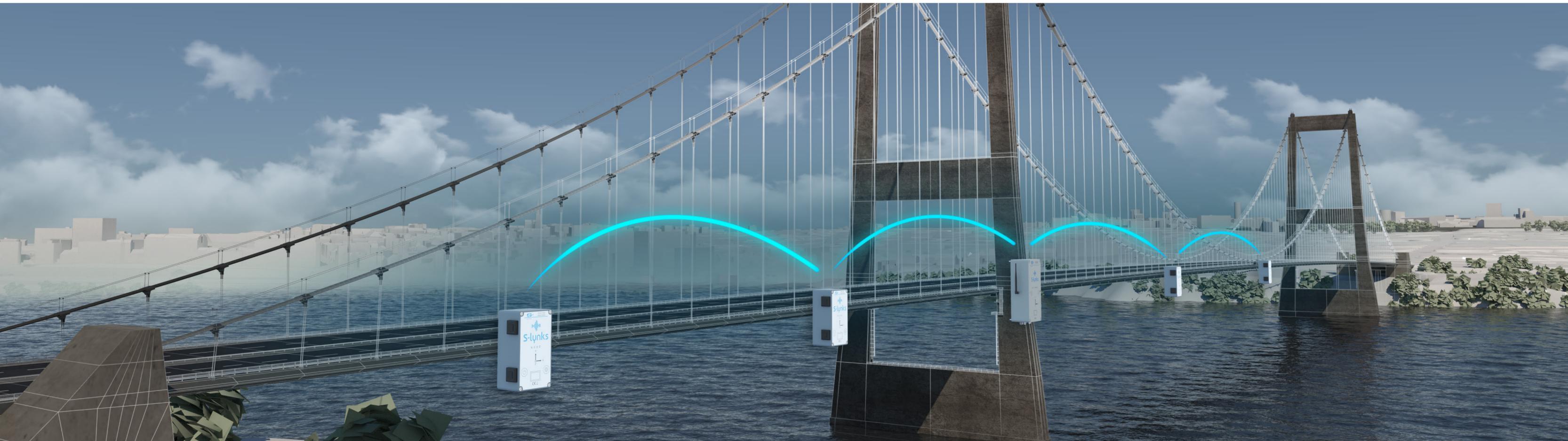
MONITORING & OBSERVATION

We provide innovative solutions for structural health and earthworks monitoring to enhance the safety and maintenance of key infrastructure such as bridges, dams and railways. Our Earth observation and environmental monitoring expertise provides intelligence for a wide range of applications from ESG and energy transition to defense, industry and engineering.

CGG Overview

Subsurface Imaging   Geology & Engineering   Satellite Mapping   Multiphysics   **GeoTraining**   HSEQ

At CGG, we hire and develop exceptional people. We seek challenges and are inspired by those we face. We are committed to innovation and invest in R&D to develop new geoscience technologies and equipment, and harness AI, machine learning and data analytics.

GEOTRAINING

GeoTraining brings together the full breadth of CGG's skill development programs to provide specialized short courses and comprehensive geoscience learning path programs.

Subsurface Imaging   Geology & Engineering   Satellite Mapping   Multiphysics   GeoTraining   HSEQ

HEALTH, SAFETY, SECURITY, ENVIRONMENT AND SOCIAL RESPONSIBILITY

At CGG, health, safety, security, environment and social responsibility are embedded in our management system. We take pride in our work and partner with clients and the communities in which we operate to ensure the best outcomes for all.

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