GEOCONVENTION 2021

September 13 - 15, 2021

SEE THINGS DIFFERENTLY

CGG

WELCOME

At GeoConvention 2021, we are proud to showcase our latest geoscience, software and data transformation offerings. View our scheduled presentations here.

In addition, look for our conference talks, “The co-evolution of rock physics and seismic inversion” by Brian Russell and “Does geostatistical inversion increase resolution?” by John Pendrel, in the GeoConvention technical program.

For more information on CGG offerings, the Resources section of this document contains links to additional material such as pre-recorded webinars, papers, and more.

We hope you enjoy this year’s GeoConvention, and we look forward to talking with you about our latest developments!

OUR CONFERENCE TALKS

Mountain Daylight Time (MDT), UTC-6

MONDAY 13TH

8:35 AM

Rock Physics

The co-evolution of rock physics and seismic inversion

Brian Russell, CGG

WEDNESDAY 15TH

9:25 AM

Geophysical Reservoir Characterization

Does geostatistical inversion increase resolution?

John Pendrel, CGG

OUR PRESENTATION SCHEDULE

Register here

Mountain Daylight Time (MDT), UTC-6

MONDAY 13TH

10:00 - 10:30 AM **Accounting for uncertainty and bias in facies-inversion workflows**
John Pendrel, CGG

1:00 - 1:30 PM **Monitoring surface deformation of geothermal fields using satellite InSAR**
Amy Lloyd, CGG

TUESDAY 14TH

10:00 - 10:30 AM **Coffee break with Brian Russell and David Gray**

12:30 - 1:00 PM **Generate synthetic data for deep learning data analysis with WellGen**
Tanya Colwell, CGG

2:45 - 3:15 PM **Building a geological model over the Upper Rhine Graben**
Nicolas Salaun, CGG

WEDNESDAY 15TH

10:00 - 10:30 AM **Interactive well path planning using geoscience data**
Ted Holden, CGG

1:00 - 1:30 PM **Coffee break with Brian Russell and David Gray**

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MEET OUR EXPERTS (1/3)

Brian Russell

VP HampsonRussell, CGG GeoSoftware

Brian is the co-founder of **HampsonRussell** software and has more than 40 years of experience working in the oil and gas industry. He first started his career as an interpreter for Chevron where he moved into their geophysical technology division and found his passion for software. After that, he joined Veritas Seismic where he met Dan Hampson. Their strong working relationship, extensive research and commitment led them to forming their own software company in 1987. With Brian's vast knowledge and technical experience he has made numerous contributions to the geoscience community. **HampsonRussell** software has been in use in all parts of the world for more than 30 years.

Connect with Brian

John Pendrel

Product Strategy Manager,
Jason, CGG GeoSoftware

John completed a Ph.D. in Geophysics from York University, Toronto in 1977 where his interests were in two-dimensional time series and spectral analysis. He began his career in the oil industry in 1977 with Gulf Science and Technology Company in Pittsburgh, PA. While in Pittsburgh, John was a member of Gulf's AVO team working with Ralph Shuey and later its tomography team, conducting research in the areas of pattern recognition and principal components analysis. John joined **Jason** Geosystems in 1995. There, he did applied research in seismic inversion, geostatistics and AVO.
His current position with CGG GeoSoftware is Product Strategy Manager for the **Jason** software.

Connect with John

MEET OUR EXPERTS (2/3)

Ted Holden

Regional Technical Manager, NALA, CGG GeoSoftware

Ted Holden has 44 years of experience in the oil and gas industry. Ted began his career in open-hole well log data acquisition and analysis. After 20 years working US oil and gas fields, Ted gained extensive international experience, first in Ecuador, followed by eight years with an E&P company in Indonesia, managing integration of wells and seismic for field development. After returning home to Texas, Ted began work with Fugro-Jason, consulting for clients around the world in reservoir characterization projects. Since 2011, he has served as a Regional Technical Manager for CGG GeoSoftware in North America and South America, assisting clients in the application of technologies in petrophysics, rock physics, seismic inversion and analysis of results in quantitative interpretation projects.

Connect with Ted

Tanya Colwell

Product Strategy Manager, HampsonRussell, CGG GeoSoftware

Tanya is a Product Strategy Manager for GeoSoftware. She has been with **HampsonRussell** software for more than 20 years and holds Master Degrees in both Applied Mathematics and Computer Science. As a developer in HampsonRussell, she worked on **AVO**, **Emerge**, **ProMC** and other seismic characterization products. Now, her responsibilities are to develop product strategies, oversee software development directions and study market trends. With a passion for science in traditional reservoir characterization and newer machine learning methods, she often interacts with clients and provides technical education for a worldwide audience.

Connect with Tanya

MEET OUR EXPERTS (3/3)

Nicolas Salaun

Geophysical Group Manager,
CGG Subsurface Imaging

After obtaining a MSc in geophysics from the Institut de Physique du Globe, Nicolas joined CGG in 2008. During his 12 years in the seismic imaging department, he has worked in Singapore, The Netherlands and France. He has also worked on various land and marine projects. He now supervises several seismic imaging projects—most notably a geothermal project performed in Northern Alsace in 2020.

Connect with Nicolas

Amy Lloyd

InSAR Scientist,
CGG Satellite Mapping

Amy started working in InSAR remote sensing for CGG Satellite Mapping in 2020. During her time with CGG she has gained experience working across a range of geoscience fields including geothermal energy, mining, and the oil and gas industry. Amy has been working in GIS and data handling in the mining and exploration industry for four years. She graduated with a BSc in Applied Geology from the University of Plymouth and an MSc in Mining Engineering from the Camborne School of Mines.

Connect with Amy

CGG Satellite Mapping

RESOURCE LINKS - GEOSOFTWARE (1/3)

NEWS RELEASE

GeoSoftware 11.0 integrates all of GeoSoftware's industry-trusted solutions, including **Jason**, **HampsonRussell**, **PowerLog**, **RockSI**, **InsightEarth**® and **VelPro**, so that they can now work together on a single platform. This advanced integration features flexible cross-product workflows to improve E&P project performance and provide a better understanding of reservoir properties.

YOUTUBE VIDEOS

Visit the GeoSoftware virtual library for our most recent webinars and videos showcasing GeoSoftware applications.

BROCHURES AND FLYERS

GeoSoftware overview

WellGen

TECHNICAL ARTICLES

Theory-guided data science-based reservoir prediction of a North Sea oil field

by Jon Downton, Olivia Collet, Dan Hampson and Tanya Colwell, The Leading Edge, October 2020

Providing Crucial Data Visibility –New software integrates engineering planning with geoscience data for optimal well path designs

by Joseph Dominguez, Hart Energy's E&P Plus, January 2021

Machine learning for predicting stochastic fluid and mineral volumes in complex unconventional reservoirs

by Fred Jenson, Chiranjith Ranganathan, Shi Xiuping and Ted Holden, World Oil, April 2021

Rock Physics Diagnostics: A Prerequisite for Successful Modeling

by Jimmy Ting, Hart Energy's E&P Newsletter, June 2021

RESOURCE LINKS - SMART DATA SOLUTIONS (2/3)

OVERVIEW

Smart Data Solutions provide complete, tailored data organization with industry-leading physical record and geological asset management and the latest E&P data digitalization services. Projects and investments align with your digital transformation goals to minimize complexity and reduce data management costs. **Smart Data Solutions** transform your physical assets into online assets, each stored within an easily accessible cloud environment.

FLYER

PleXus

PleXus solves your data management challenges quickly, efficiently and cost-effectively, providing easy, fast and focused access to the important subsurface geoscience assets needed to perform your daily tasks.

RESOURCE LINKS - ENERGY TRANSITION (3/3)

OVERVIEW

CGG Geothermal science solutions bring worldwide, multi-disciplinary geoscience data, technology and expertise to understand and de-risk geothermal prospects, from exploration to production. With over 130 targeted projects and two global resource assessments since 2011, we provide valuable intelligence in global data and analytics, resource assessment, reservoir characterization, production and monitoring.

TECHNICAL ARTICLES

Geothermal Energy A new frontier for energy – and petroleum geoscientists

by Ellie MacInnes, GeoExpro, June 2021

High-resolution 3D seismic imaging and refined velocity model building improve the image of a deep geothermal reservoir in the Upper Rhine Graben

by Nicolas Salaun, Helene Toubiana, Jean-Baptiste Mitschler, Guillaume Gigou, Xavier Carriere, Vincent Maurer, and Alexandre Richard, The Leading Edge, December 2020

Geologically consistent multiphysics imaging of the Darajat geothermal steam field

by Wolfgang Soyer, Randall Mackie, Stephen Hallinan, Alice Pavesi, Gregg Nordquist, Aquardi Suminar, Rindu Intani, and Chris Nelson, First Break, June 2018

GEOSCIENCE

TECHNOLOGY LEADERSHIP

Understand and solve complex natural resource, environmental and infrastructure challenges

SEE THINGS DIFFERENTLY

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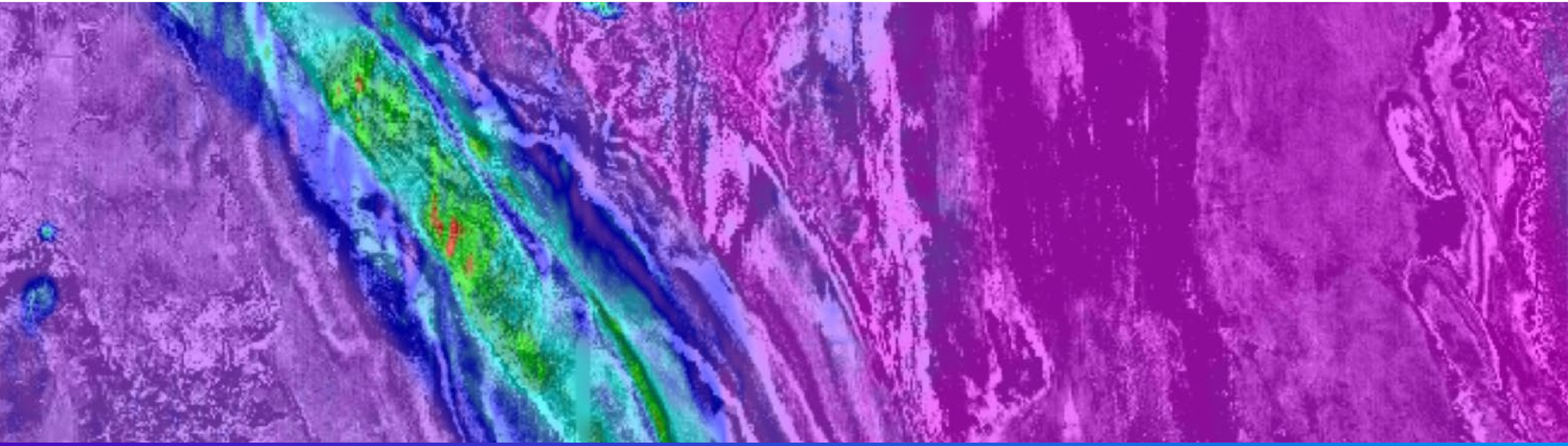
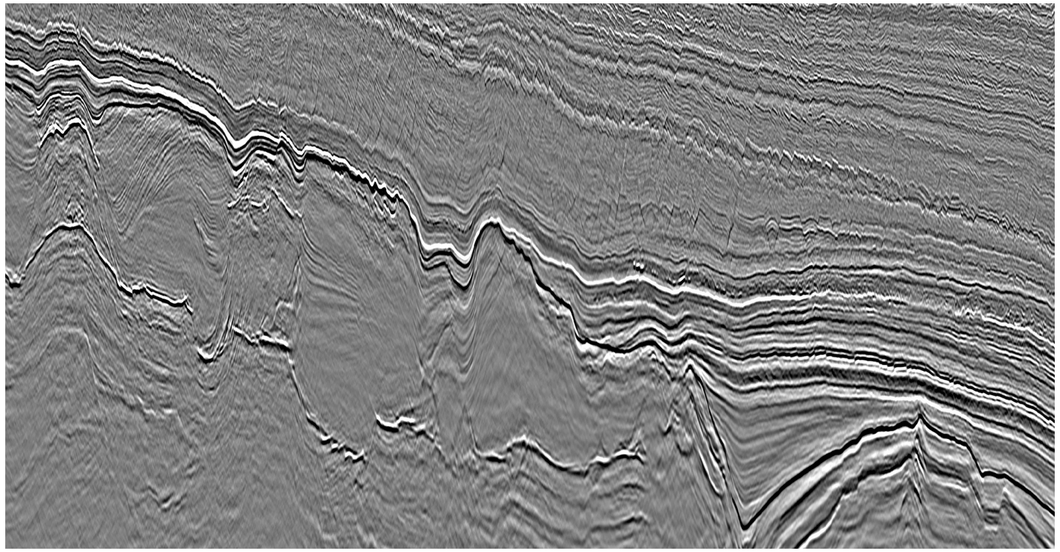
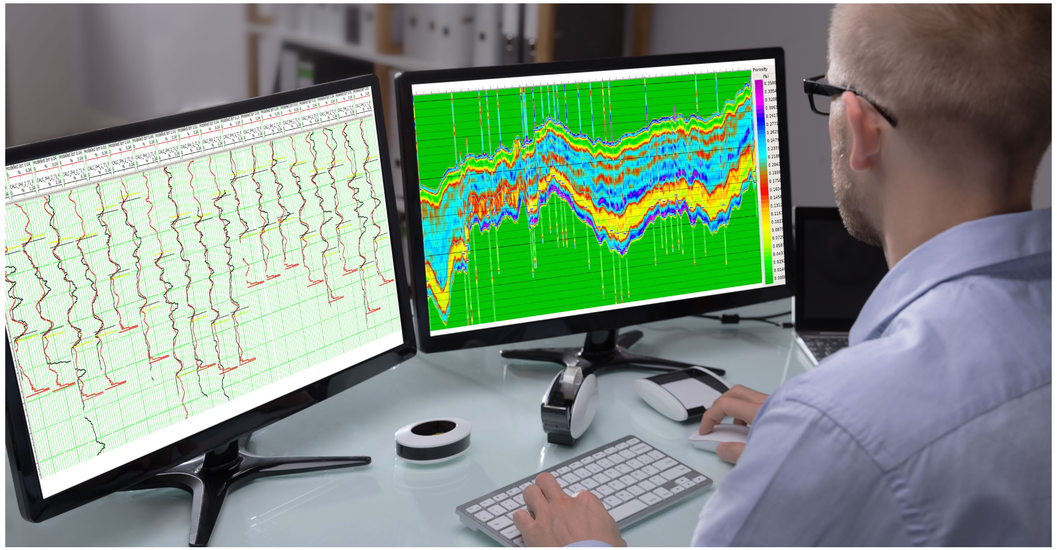


GEOSCIENCE TECHNOLOGY

With our broad portfolio of geoscience technology and expertise we support our clients to more efficiently and responsibly solve complex natural resource, environmental and infrastructure challenges. We research and leverage the latest geoscience and digital technologies, including machine learning and analytics, to accelerate workflows and deliver more accurate results.



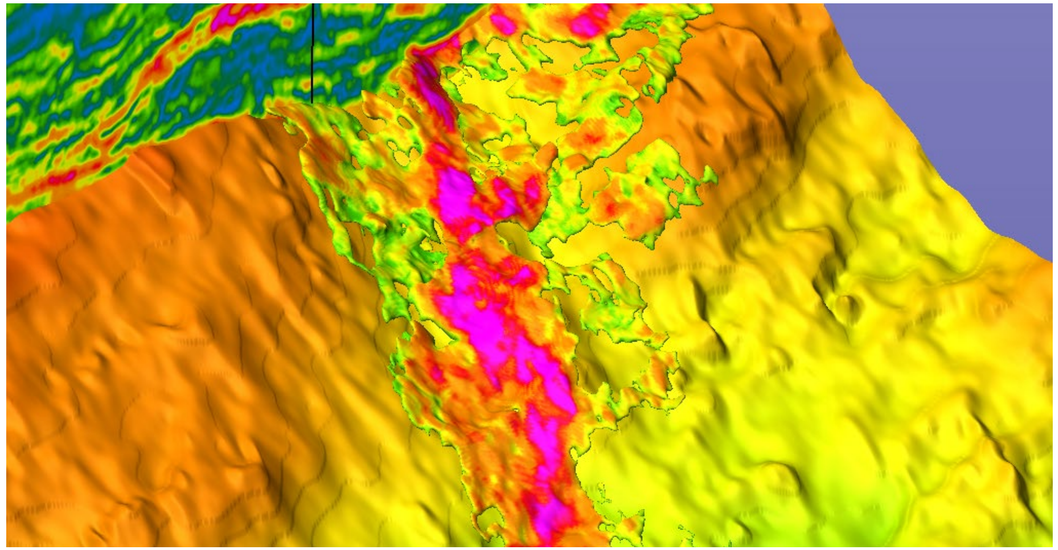


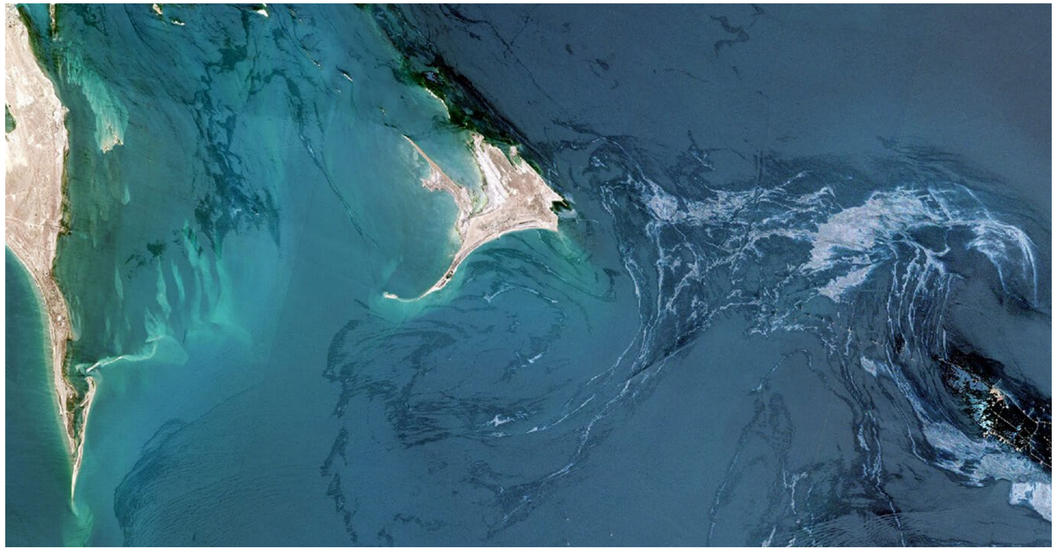
SUBSURFACE IMAGING

We are recognized leaders in advanced imaging and our experts bring a collaborative approach to problem-solving. 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 our clients' geothermal, CCUS and environmental Energy Transition programs.



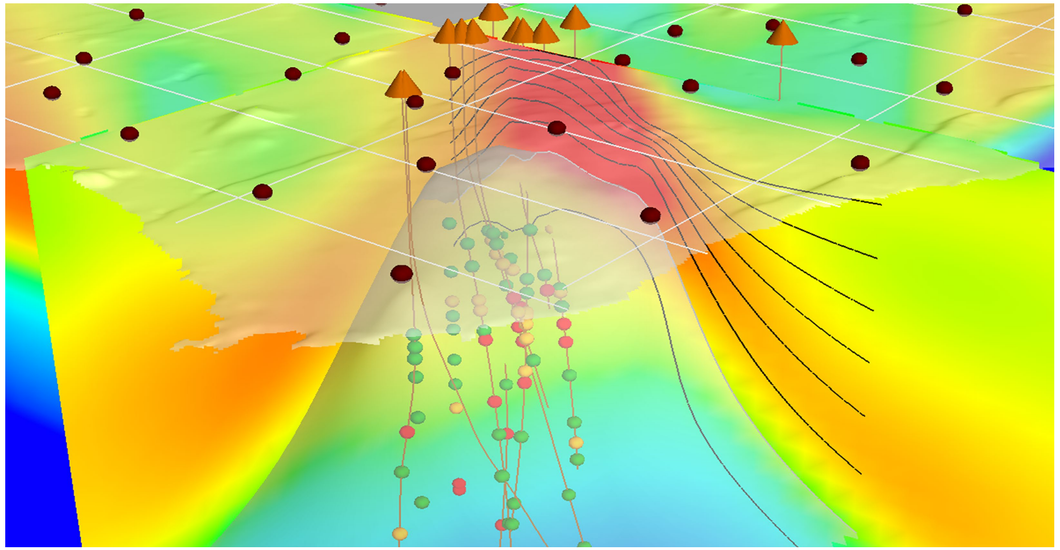


GEOSOFTWARE

Improved performance, intuitive interfaces and new technology are always paramount in evolving our industry-leading GeoSoftware solutions. Our new **11.0** portfolio, including **HampsonRussell**, **Jason**® and **InsightEarth**®, offers advanced machine learning capabilities, flexible integrated workflows, and much more.

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.



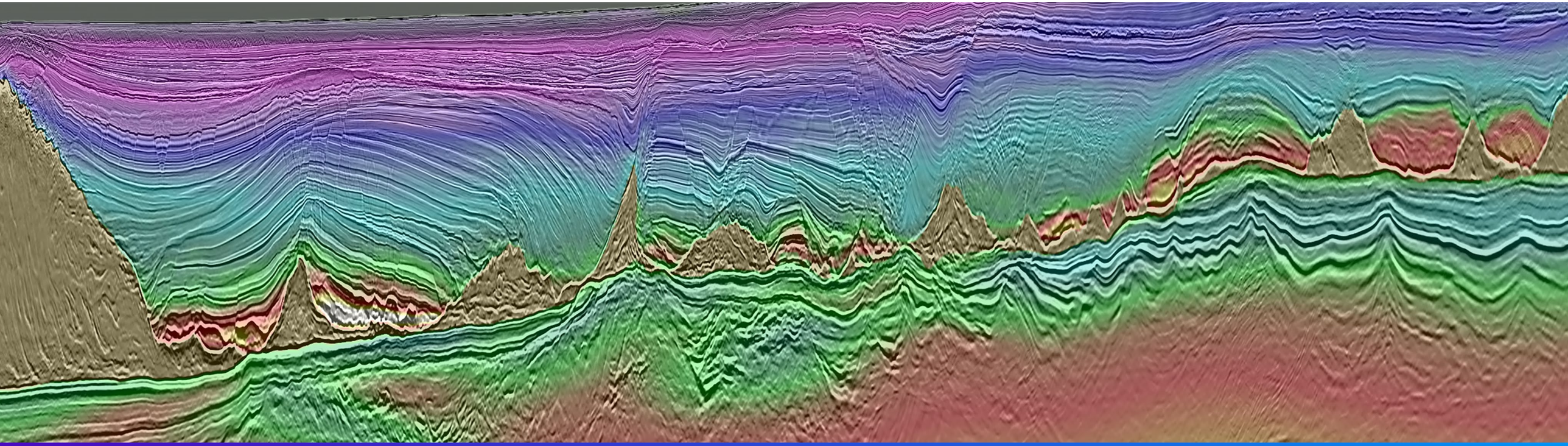
SMART DATA SOLUTIONS

We provide tailored data organization with industry-leading physical record and geological asset management, the latest digitalization technologies and an easily accessible cloud environment. We align with your digital transformation goals to minimize complexity and reduce costs.

MULTI-PHYSICS

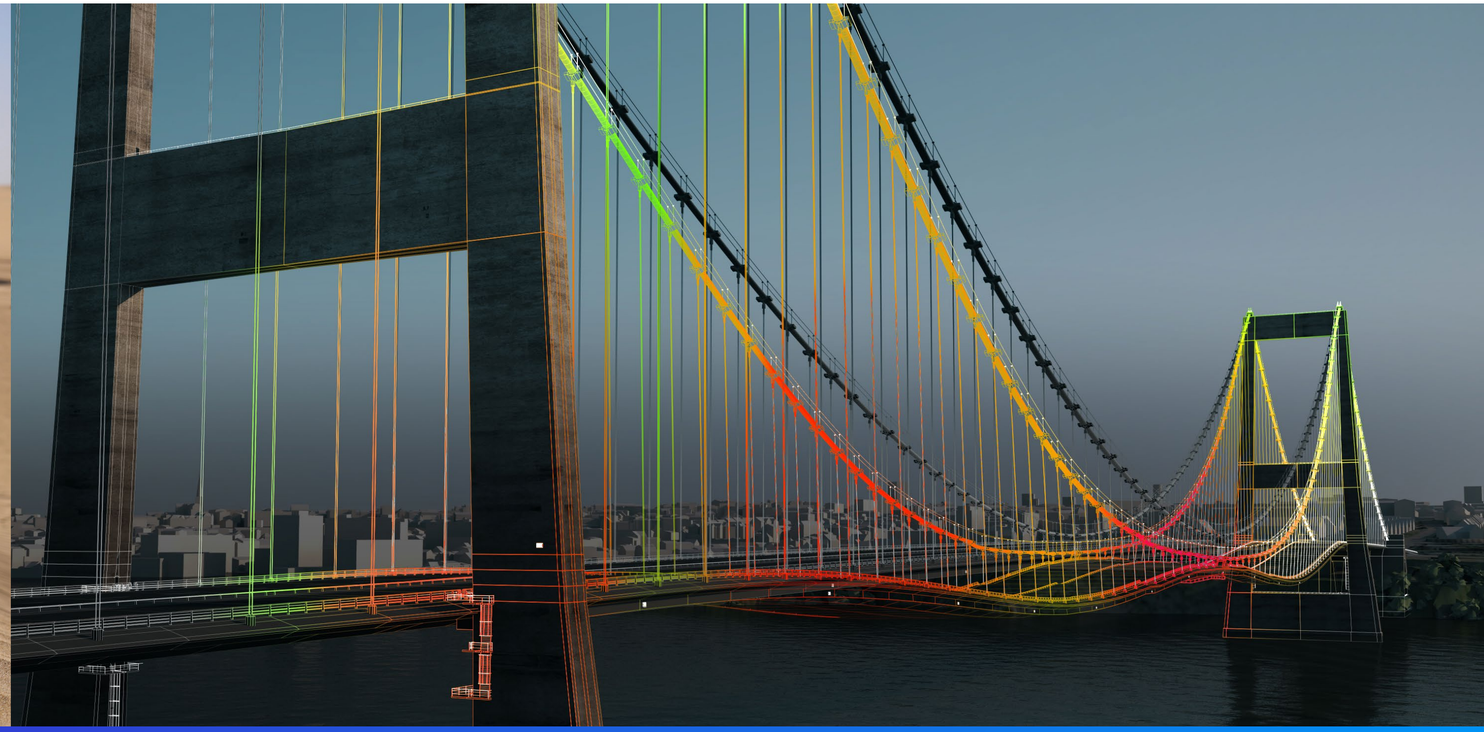
We provide high-end imaging and interpretation solutions using our proprietary software for natural resource exploration and development challenges.

We build reliable subsurface models which integrate multiphysics, geological, seismic and well data.



MULTI-CLIENT DATA

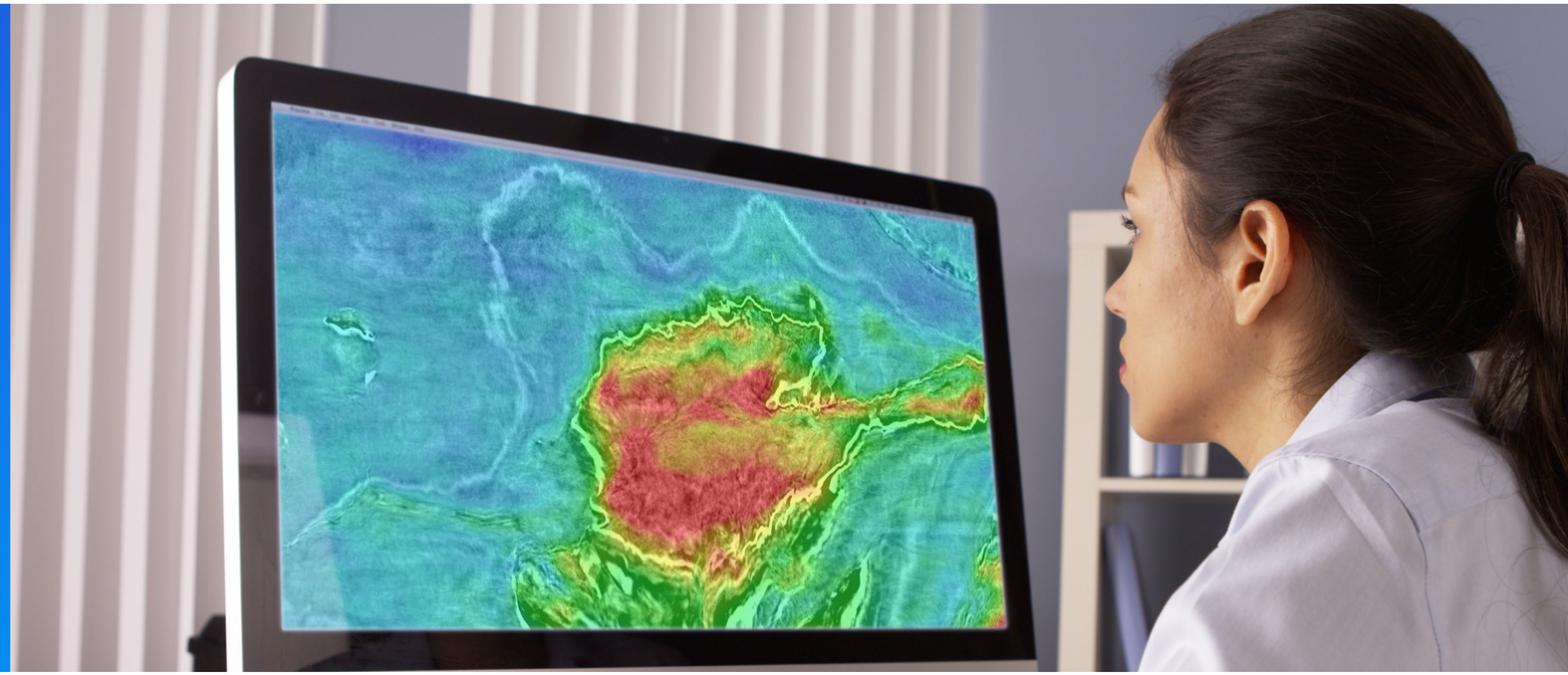
We offer the best high-end seismic data and integrated **JumpStart**™ geoscience packages in the most prolific basins around the world. In addition, we offer **GeoSpec** value-added legacy seismic data, well data, the world's largest commercial library of potential fields data, and **GeoVerse**™, a global database of analytics-ready digitally transformed geoscience data.



EQUIPMENT TECHNOLOGY

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.

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 the E&P industry with specialized short courses and comprehensive geoscience learning path programs.

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.