THE POWER OF
GEOPHYSICAL
MODELING
SEAM
In our efforts to better understand earth systems the field of geophysics provides some very powerful and valuable tools.

**GEOPHYSICAL MODELING** is one such tool.

**SEAM** from the prestigious Society of Exploration Geophysicists is a collaborative industrial research effort dedicated to large-scale leading-edge geophysical numerical simulation modeling projects.
These projects are designed to provide E&P with earth models and simulated data that represent significant geophysical challenges of high business value to the petroleum resource industry.

Corporate management has come to expect greater clarity and reduced uncertainty, or greater certainty, in subsurface projects with increasing greater geological complexity.
SEG SEAM GEOPHYSICAL MODELING GRAND CHALLENGES (2007-2015)

**STRATEGY**

**GEOL OGY**

- Marine Deep Water Systems
  - Subsalt Plays

- Land Systems
  - Barrett Unconventional
  - Arid Near Surface
  - Foot Hills Model

- Special Problems
  - Pore Pressure Prediction
  - 4D Seismic
  - Pore Pressure Fluid Flow

- Multi-disciplinary Integration
  - Life-of-Field (LOF)*
    - Reservoir Characterization
    - Fluid Flow Dynamics

- Unconventional Resources
  - Integrated Basin Model, Rock Physics, & Geomechanics

- Fluid Flow Dynamics
  - Integrated Geology, Geophysics, Geomechanics, & Reservoir Engineering
  - Simulation
  - Fluid Flow Dynamics

**TECHNOLOGY**

- Seismic Imaging Technology
- Seismic Imaging Technology
- Integrated Geology, Geophysics, Geomechanics, & Reservoir Engineering

**2007-2011**

- 2010-2016
- 2014-2017
- 2017-2019

**Geoscience Simulators**