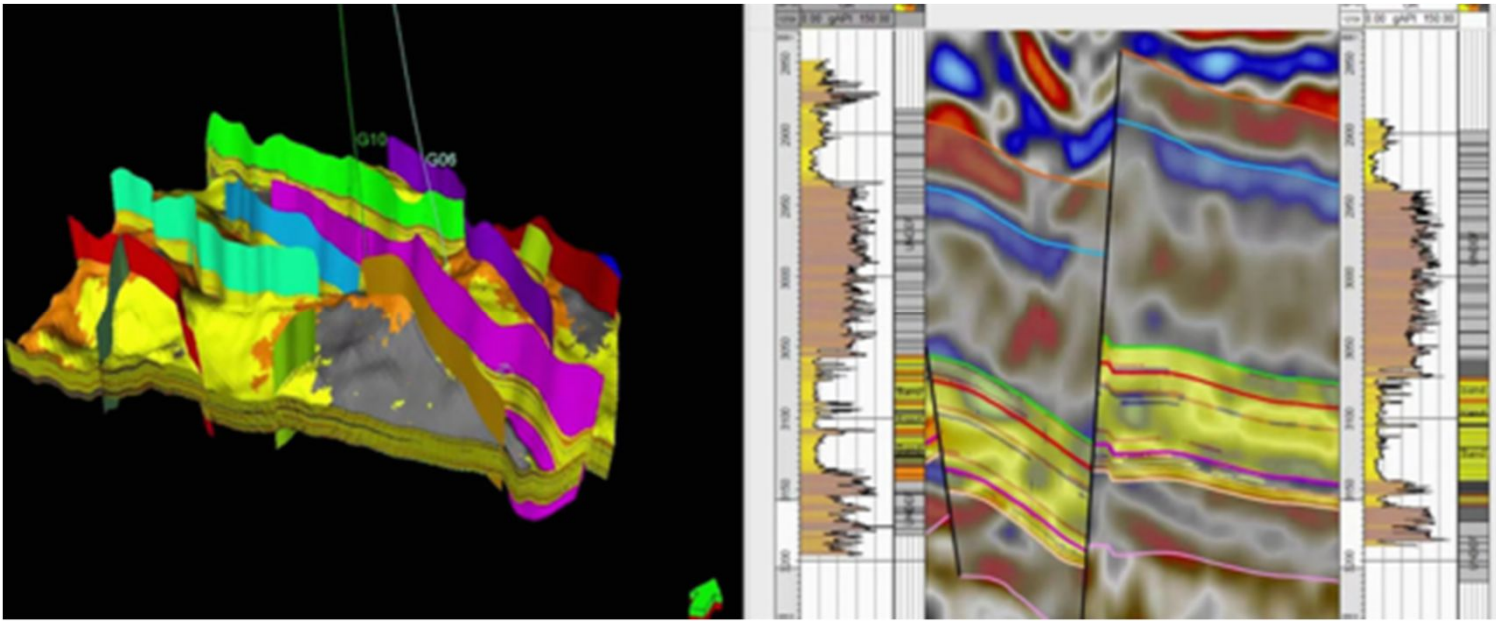


## Short Course on 3D seismic interpretation

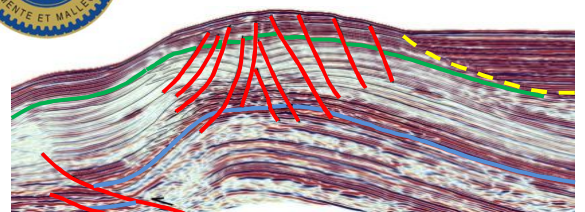
**Napoli, 15-19 January 2018**

Sede di Monte S'Angelo, via Cintia 26



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# Short training Course on 3D seismic interpretation Program

**Day 1: Fundamental of seismic interpretation; Amplitude analysis; Fluid substitution**

**Day 2: Petrel E&P Platform: Seismic and well data loading, well tying and correlations. Amplitude characterization.**

**Day 3: Project work I: Mapping surface and faults**

**Day 4: Project work II: introduction to seismic reservoir characterization**

**Day 5: Overview**

**Day 1: Fundamental of seismic interpretation; Amplitude analysis**

9-12: Intro to fundamental of seismic interpretation: body and surface waves, fundamental of ray tracing; Pre stack shot gather; Basic of processing; Snell laws; refraction

14-17: Concept of contrast of impedance, reflectivity, Gardner law, intro to interpretation of reflectors using the basic concepts. Basics of seismic stratigraphy and reflection termination. Tuning thickness; Amplitude analysis; principle of fluid substitution. Exercise: reconstruction of reflectivity using sonic log data and Gardner law.

**Day 2: Petrel E&P Platform: Seismic and well data loading, well tying and correlations. Amplitude characterization.**

9-12: creation of folder and petrel project (saved in the petrel share); Upload of well data; basics of well log data analysis (Porosity, permeability. Gamma ray; net to gross). Fundamental of formation evaluation from Well log data.

14-17: SEGY header; Upload of seismic dataset (Gullfaks 3D data); realizing data, voxelization; analysis of the seismic trace (Trace representation, wiggled to smoothed, polarity check), tools to map horizon (manual, autopicking, 2D/3D auto mapping); the tri-dimension factor: time slices, 2D arbitrary lines; fault, producing surfaces. Fault maps; Basic seismic Attributes analysis (RMS, Envelope 1st. phase; cos phase) and their uses.

**Day 3: Project work I: Mapping 2D/3D seismic data.**

9-12: Project work: mapping horizons using well data correlation (Top cretaceous; Base cretaceous).

14-17 Project work: mapping horizons and faults using well data correlation (top Tarbert Unit)

**Day 4: Project work II: introduction to seismic reservoir characterization**

9-12: Reservoir characterization: focus on the seismic attributes expression and well log response of the Brent reservoir.

14-17: Project work

**Day 5: Overview**

9-12: North Sea Petroleum system - The Gullfaks petroleum system

14-16: wrap up and final discussion

