



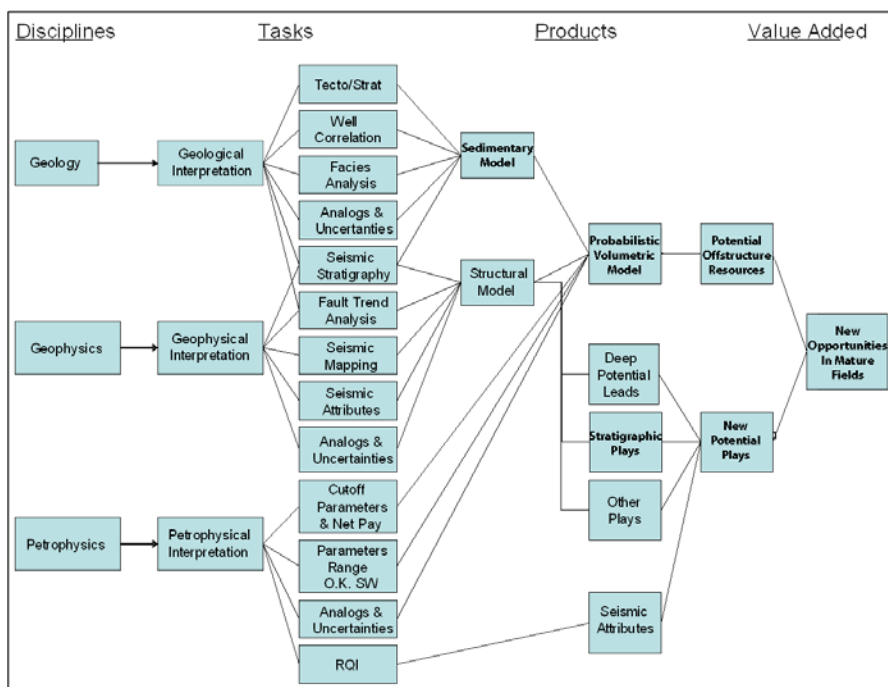
# innovation

## Analysis with limited modern logs, core, and pressure data

**Client:** Repsol

**Location:** Argentina

**Objective:** Visualize a wide range of cross-functional redevelopment opportunities in mature oil and gas fields



Repsol engaged Knowledge Reservoir to re-examine multiple mature oil and gas fields in Argentina in light of new and emerging technologies and industry best practices. The fields have produced for 50 years or more from complex, clastic sedimentary systems at high water cuts and from a large numbers of wells. The challenges included providing an analysis with limited modern logs, core, and pressure data.

The project objectives included the following:

- Visualize opportunities to economically augment reserves and production in the fields.
- Assess whether the fields merit progression to further detailed analysis (the Conceptualization Phase).
- Develop and justify scenarios to economically augment reserves and production in the fields, including estimates of potential hydrocarbons identified during the study.
- Define the deliverables, schedule, and resources for the Conceptualization Phase.

The project incorporated the methodology shown in the figure to the left and resulted in the identification of opportunities for:

- Recovering bypassed pay in established areas.
- Increasing recovery factors.
- Realizing additional potential from untested, deep hydrocarbon resources.
- Providing a list of recommended new measurements and technologies to be considered in the Conceptualization Phase and during drilling.