Evaluating Options for Oil Field Development

Background
Our client is a large oil and gas producer which wanted to get insights into the possible options for development of a specific oil field. In particular, they wanted to identify which configurations would be viable against a range of scenarios and which, if any, could be eliminated. Key members of the client’s project team were convening to develop and review the potential options for the future development of this field.

The team needed to consider the impacts, benefits and risks against several scenarios covering different volume predictions and varying assumptions about the possible geographic development of the field.
The Challenge

The strategic intent covered the following key points:
- To determine the best means of extracting oil & gas from the field.
- To design the extraction configuration appropriate for each of a number of possible field scenarios.
- To understand the relative Costs, Impacts, Risks and Benefits associated with each of a number of possible field development options.
- To define what key additional information would be required to mitigate any risk differentials between the options.

How Catalyze helped

The key project team members were engaged in the development of Multi-Criteria Decision Analysis (MCDA) models using Decision Conferencing. This involved a series of structured exercises in which the proposed options were reviewed and further developed as they were assessed against a wide range of decision criteria. It rapidly became clear what data was relevant and, importantly, what was not relevant to the decision making process.

The resulting model then demonstrated how the options compared against the scenarios, when trading-off between the benefits, risks and costs.

Participation in the process also created new perspectives within the project team which allowed the configuration of new options that were good across the scenarios.

Enabling Effective Decisions

The approach allowed the project team and other key stakeholders to develop a shared view on what were the key factors in the decision making process for the development of the field, and to understand how these factors actually affect the preference for certain options.

The team rapidly identified and eliminated non-viable options and irrelevant data, and achieved clarity and alignment on where future analyses should be focused.