

# Collaborative Behaviours Case Study: Penguins Redevelopment

## Background

- Period: 2015 - 2018
- **Headline description:** The Penguins project (redevelopment of an oil and gas field in the UK Northern North Sea with expected recovery of up to 80m boe) was quick to grasp the need for strong industry collaboration in response to the oil price downturn. This collaboration has enabled innovative thinking, willingness to challenge established processes and the flexibility to change. It has resulted in lower development cost and the realisation (FID early 2018) of an initially sub-economic project.
- **Companies/Organisations involved:** Shell (Subsea, subsurface, FPSO, C&P, Wells, Trading), Sevan, CGG, several vendors, OGA

## Critical behaviours (tick all that apply)

Reasonable    Aligned    Strategic    Learning    Change    Respect    Accommodating    Openness

## Description – how were critical behaviours exhibited?

Learning: Having experts from Sevan, Shell Trading, UK Operations and Offshore Structures in the design team, was invaluable. This collaboration ensured that industry lateral learning and best practice was built into the design of the redevelopment.

Strategic: The project is making a positive contribution to MER by unlocking new opportunities in a mature field. The stranded Tybalt discovery will now contribute additional volume for the project. Re-use of existing pipeline enabled the FPSO to be repositioned to a more central field location, maximising the re-use of existing infrastructure and minimising tie-back lengths.

Change: The project has been engaging with key suppliers since the start of FEED in 2015. The subsea scope has gone through several stages of development, in large part due to engagements with the contractor community. As a result of discussions on the objectives of the project and opportunities for optimization, the project revised our strategy to include an EPIC contract for the main subsea system, and developed a functional specification, replacing many of our specific technical requirements with industry standards. This will enable contractors to offer more competitive solutions.

Accommodating: Vendors were given the opportunity to tailor the scope and minimise cost to suit their own execution capability, fabrication facilities and vessels in a design competition

## Outcomes – impact of collaboration

Competitive scoping, early contractor involvement and the use of a standard design helped the team to get the optimum solution with 50% cost saving and 25% volume additions realised when compared to the initial phases of the project. Collaboration in the project also led to innovative approaches (e.g. vendors were given the opportunity to tailor the scope, competitively acquiring seismic data, designing slim wells) and use of new technologies.