

## 1. Problem Statement

It is widely acknowledged that a significant proportion of oil and gas production is lost each year through plant downtime and system-related issues.

## 2. Aims

- Explore new technologies that make use of existing operational data sources to provide analytical insights which enable decisions and interventions to maximise production uptime, enhance business performance and mitigate risk.

## 3. Method

- Nexen engaged Operational Excellence (OPEX) Group to apply a predictive analysis service on the Buzzard platform to detect warning signs and identify emergent system failures, prior to the event occurring.
- The scope of work covered the full process gas compression system on board Buzzard, including process separators, coolers, exchangers, gas compressors, drivers, valves and system instrumentation.

## 4. Impact

The service has delivered significant value, including:

- A reduction in critical system failures or downtime
- Reduced maintenance costs and the high cost of unplanned equipment repairs
- Identification of performance improvement opportunities
- Highlighted rapidly escalating problems and longer term threats at a very early stage

Following the initial pilot in 2015, the service has been implemented on a longer-term basis on additional systems on Buzzard and other Nexen assets.

Total savings anticipated

\$20 million production revenue safeguarded in 2016.