

# SyntheSys Assists Major Oil & Gas Player

## New Custom Systems Engineering Approach

### Systems Engineering is Pivotal

**The systems engineering process within an organisation is pivotal to organisational success. Particularly in the highly changeable energy sector.**

SyntheSys recently worked with an organisation who had made the decision to adopt a systems engineering approach to improve efficiency in the way they procure systems and improve their ability to demonstrate compliance. This decision was taken in direct response to the fluctuations in global oil prices.

The organisation had devised a four-year programme that will initially enable them to apply requirements engineering to their engineering standards, map verification and validation against standards, and go on to scope standards against projects. This will enable engineering projects to apply a fundamental layered requirements management approach and trace compliance to standards.

At the heart of this strategy is the need to apply requirements engineering principles to their engineering standards, which is where we are actively assisting this organisation.

### Standards

The decision to start with standards reflects two observations: firstly, that it is the group of engineers within the team that look after their 500+ engineering standards that are the most prepared to embrace a more controlled approach; secondly, improving the way standards are communicated to projects would bring the most immediate benefit. Determining which standards - and which parts of standards - are applicable to each project context is the challenge being addressed.

SyntheSys assisted in the implementation and integration of new, sound, systems engineering processes. The initial tasking focused on implementing tool support using the IBM Watson Internet of Things (IBM Watson IoT™) IBM® Engineering Requirements Management DOORS® Family requirement management tool, where we semi-automated a review process that involves roundtripping data from IBM® DOORS® Family into Excel to gather comments.

**The customer is delighted with the way IBM® DOORS® Family is able to collate comments from multiple authors against the standards - already a significant improvement over their existing process.**

Subsequent tasks have been focused on training and mentoring. We have developed self-learning videos supported by coaching on demand as people start to apply systems engineering using IBM® DOORS® Family. These materials help educate staff to the new processes, rather than just IBM® DOORS® Family product training.

This is only the beginning of a journey for the customer in establishing a new culture of systems thinking that promises manifold benefits in their complex engineering processes.

### About SyntheSys

SyntheSys provides defence systems, training, systems and software engineering and technical management services over a spectrum of different industry sectors. Along with distinct support and consultancy services, our innovative product range makes us first choice provider for both large and small organisations. Established in 1988, the company focus is on fusing technical expertise with intuitive software applications to solve common industry challenges.

