Woodside, an Australian oil and gas company with a global presence, is implementing predictive analytics for maintenance and process-control in production operations across its liquefied natural gas (LNG) assets.

Shaun Gregory, Senior Vice President of Science, Technology and Strategy discusses how digital technologies are helping Woodside create an intelligent, agile and competitive organization.

Digital technology is probably one of the most exciting changes happening right now, and I’ve been amazed at how fast technologies have scaled and penetrated our organization. It’s not something we’re used to – we’re an innovative company and we’re leaders in technology but we generally work on years of timeframes, while digital works on weeks – and we’ve seen that in practice already.

How is analytics transforming your business?
In one LNG plant we’re streaming 200,000 sensors, so we are big data at its core. In the past we just reported on that data. Analytics has transformed that by creating value from that data. We can now analyze and predict outcomes that can be very expensive – such as plant interruptions or maintenance issues. Now we have a forewarning – analytics and predictions are becoming a way of life now that we’ve activated that platform. It’s huge and its impact cannot be underestimated. We’re in its infancy.

How is analytics providing actionable insights?
The easy things to tackle are predicting failures on a piece of kit. It then leverages and allows us to go into optimization, because we have data from across our plant. We can work out how to run a plant better today at this temperature in these winds – this is not a question we’ve asked in the past but analytics has enabled us to do so.

How is this helping Woodside be more competitive?
An edge in bringing operation costs down or maintaining production is always a good thing in today’s market.