



*Will LEAN help the Oil & Gas industries achieve zero-defect performance, or hamstringing flexibility and responsiveness?*

# THE ANSWER LIES

**As Vice President-Energy for Celerant Consulting Americas, Gary Traylor knows that LEAN success requires skilled management from design to implementation, particularly in the face of oilfield resistance.**

**He expanded on that view in a recent article in E&P magazine.**

**W**hat distinguishes LEAN from other management principles is that it requires re-engineering all inter-related and supporting processes at the same time. LEAN presents the most comprehensive way of thinking about business and operating improvements, while fully accounting for each process, system, organisation and its requirements for an integrated solution. This approach to improvement is very different from other change initiatives such as Six Sigma. Instead of viewing a process through measurement and analysis of variations and underperformance, for example DMAIC - Define, Measure, Analyse, Improve, Control - LEAN systematically looks for value in every process from beginning to end.

*LEAN offers a more robust approach that includes trial and error and creates more sustainable results. It also leverages higher order management systems for control of processes and standardisation of operating procedures. Such metric guidance*

*serves to better direct the workforce on a daily, shift-by-shift, area-by-area basis.*

#### **Faster operational integration means faster business transformation**

Responding to intense international competition and cost pressure, LEAN principles have already been applied in most major industries. Oil and gas companies, however, have been reluctant to adopt the principles out of concern for lost flexibility in the face of the unknown. As any oil and gas executive knows, each piece of information secured during an exploration, development, or production optimisation effort can dictate an unanticipated course of action.

Every core business process is supported by several support processes and sub-processes. On rigorous investigation, many of these can be improved and standardised to some degree, collectively resulting in breakthrough performance for the core process. LEAN not only applies to repetitive processes such as well drilling and well repairs, but also to one-off processes such as capital projects and greenfield developments. Many LEAN programme leaders however, fail to recognise how important it is for top management to get the entire workforce to openly embrace

the challenge of breakthrough performance, visibly demonstrating management's alignment and support for them.

In addition, some programmes employ months of extensive training, pilot programmes, or statistical analysis, stalling momentum and delaying tangible solutions and results for which management can claim victory.

*The faster and more effectively LEAN can be integrated into operations, the faster business transformation will occur. Hence, the concept of 'value velocity' comes into play.*

#### **Significant improvements in the oil patch**

In the exploration process many support and sub-processes are infamous for causing delays.

Whether waiting on seismic interpretations, permits, infrastructure build-outs or final exploratory drilling prognoses, the overall

myths about personalities, or perceived risks associated with change, especially when safety and environmental performance are of the highest priority.

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# OUT IN THE FIELD

performance of the exploration process is often constrained by the performance of its many parts. By improving each of the parts, the core process can be improved to a meaningful degree.

*LEAN can also be successfully applied in many other areas, including LEAN developmental drilling, Offshore drilling and operations logistics, well-completion processes for onshore gas, particularly shale gas operations, well-optimisation and workover programmes and gas gathering and compression system optimisation.*

#### **A Change Management programme is crucial to making LEAN sustainable**

Expecting real cultural change to become part of the organisation's DNA is simply not going to happen overnight. This is where another profound shift in thinking is needed.

The process of change must consider the reality of the situation in which people work. To change behaviours, management must engage the organisation around desired behavioural norms to demonstrate the benefits of changing behaviour. In the oil patch, particularly in the field, change can be met with stiff resistance - whether based on a company's historical success, enduring

#### **Changed behaviours bring real bottom-line benefits**

Achieving significant success through LEAN relies on finding the right fit, charting a robust roadmap to the end, measuring success along the way, and winning genuine senior level commitment. The workforce must fully grasp its short, medium, and long term targets and objectives for the programme and understand how results will be measured and reported to upper management. By emphasizing value velocity, initial results should come quickly, keeping momentum moving forward.

The company that accurately identifies opportunities, engages its workforce, and builds the right systems to measure performance and ensure continuous improvement can iterate the value stream cycle faster, thereby getting more out of its organisation over time.

*When combined with the right focus on changing behaviours and getting buy-in from employees with rapid, visible, measurable results, LEAN can bring oil and gas companies real bottom-line benefits. ■*