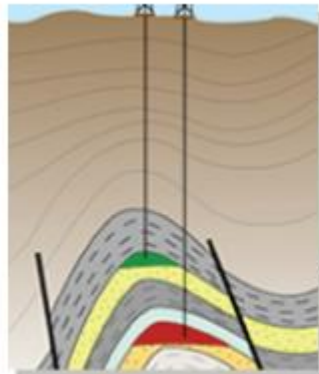


Five good reasons why oil and gas needs Process Excellence

In this piece, we take a look at why the challenges of the 21st century global oil and gas industry are best faced by a lean six sigma-focused mindset.

To advance collaboration and improve logistics throughout the supply chain



**Exploration &
Production**



**Transportation &
Refining/Processing**



**Distribution &
Retail Sale**

Due to the nature of the oil and gas business, with operators, contractors and ancillary third-party organisations forming transient alliances across an increasingly global marketplace, the oil and gas value chain is more fragmented than most. Fragmentation leads to unintended inefficiencies which then have consequences for the bottom line and threaten business sustainability.

Whether it be capital intensive high pressure high temperature (HPHT) wells in the North Sea or sub \$10 million dollar small volume production wells in the shale plays of North Dakota, Pennsylvania and Texas, from production to transport to refining, storage and sale, alignment of each segment of the value chain is vital to drive operational improvements, reduce costs and increase transparency in an ever tightening commercial environment.

To drive process improvements through optimised data and information management



In the Big Data era, the digital oilfield - an end-to-end integrated operation system in which real-time data capture helps to optimise everything from production and drilling to completions and safety - is the ultimate expression of technological advancement in the sector.

Nowadays, IT tools from downhole fibre optics to wireless transmission towers and RFID are delivering optimal data from field to boardroom. Never has the industry had the ability to be so “joined up” in its endeavours, thus optimising the management and flow of both man and materiel.

Speaking with Oil & Gas IQ, Dr Hatem Nasr, Senior Advisor Digital Oilfield for the Kuwait Oil Company stated: “The digital oilfield and production and process optimisation are synonymous and symbiotic. It’s now a case of go digital or go obsolete”.

To create networks of excellence and enable knowledge transfer



As discussed in our report [The Great Crew Change: An Extinction Level Event In The Making?](#), the Western oil and gas industry will be undergoing a huge workforce sea-change in the next 5 years, with up to half of all engineers and geophysicists passing the retirement age threshold.

If we take knowledge to be “information or data put into context”, for a company to lose that knowledge through personnel attrition is to condemn millions of man hours of cumulative experience and an entire portfolio of operational know-how and intellectual capital to the Orwellian memory-hole.

Putting processes in place for the retention and sharing of knowledge to overcome the erosion of the Crew Change, was made relatively late in the day by oil and gas companies. Early adopters like BP have institutionalised Communities of Practice with up to 100 different disciplines represented in order to share best-practice companywide with their 86,000 employees.

[Wendy Valot](#), Global Knowledge Management Specialist at BP remarked that “What one day people share, the next day they become benefactors of someone else sharing, so just the fact that the data’s out there and both sides see it as a success helps the business.”

To enhance transparency and compliance

The oil and gas industry operates on all continents bar Antarctica and across a slew of different corporate and national cultures. Cash bribes for some will be classed as mere “facilitation fees” by others in a sphere of business where upstream investment alone will hit \$678 billion by the end of calendar year 2013.



**Non-compliant
Organization**



The Law

Behind every transaction there is a contract, and contractual information can exist as data in structured and unstructured, formal and informal formats between primary, secondary and third parties. Putting the right processes in place will be crucial to marshalling these efficiently and maintaining compliance with both the Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act.

Three of the largest fines ever handed out for breach of the FCPA were given to oil and gas companies, the most recent of which was meted out to supermajor Total for inducing Iranian officials to grant the company access to national oil and gas fields. The total penalty came to \$398.2 million: \$245.2 million in fines payable to the US Department of Justice and \$153 million disgorged in profits to the Securities and Exchange Commission (SEC).

To get the best of what's left in the age of Hard Oil



The sun is well and truly setting on the Age of Easy Oil with the cost of conventional exploration and production rising much faster than the price of crude. Operators are venturing into increasingly harsher environments and virgin territories to get their hands on the black stuff, which brings to the party the unholy and ineluctable duo of cost and risk.

As oil and gas companies look to cushion themselves against the new barriers they are facing they would do well to follow in the footsteps of Lean Six Sigma adopter, California-based supermajor Chevron. The company implemented its first lean six sigma project in 1999 and by 2010 have confirmed a validated financial benefit of more than \$500 million in efficiencies stemming from its streamlining activities.



Aberdeen, Scotland
October 28th – 30th, 2013

www.energyopexeurope.com

“Delivering best in class operational performance is no longer an option – it’s a central imperative.”

This means only one thing: operators must be very focused on improving operational performance if they want to deliver positive returns.

So why do performance gaps still exist? The [European Energy Process Excellence Summit](http://www.energyopexeurope.com) is the region’s only event that will provide you with the answers. The 2013 event features a brand new program with new case studies covering new topics – all promising to provide insight into how to achieve operational excellence across the value chain to ensure capital and operational efficiency.

Taking place in **Aberdeen, October 29th-30th**, this year’s event provides a unique opportunity for the industry’s operational excellence leaders to share proven best practices for operations performance transformation.

Operational improvements that are low risk and high impact: Isn’t that what every business wants? So attend the **European Energy Process Excellence Summit** and learn to drive value, optimize your operational processes and build a world class organization.

To find out more about the event please visit www.energyopexeurope.com , call us on +44 (0) 207 036 1300 or email enquire@pexnetwork.com

