

Shifting Paradigms: A Peek Inside the Vision of National Oilwell Varco's Engineering Technology Team

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What does shifting paradigms really mean?

This concept of exacting a collective change of mind around ideas which have long been considered "settled" is so often thrown around in motivational business gatherings, halls of education and even in personal relationships that it has become diluted by casual use. Thomas Khun first introduced the concept in his game changing book, *The Structure of Scientific Revolutions*, and out of sheer respect for his early work we can accept that social thought around paradigm shifts is today inaccurate. What began as a term used to encapsulate the definition of what it means to see a change in the basic assumptions within the ruling theory of science is now a catch phrase. Kuhn's study was centered around what it meant to accept that a given scientific concept can and will change, that the studies around those concepts will have to evolve with new discoveries and new conclusions will be drawn.

National Oilwell Varco has been shifting paradigms since the genesis of its early companies in 1841. For more than 100 years the company has experienced growth galvanized by a commitment to doing things differently when the accepted moirés were not enough to get the job done. When it wasn't popular to acquire smaller, less successful companies, NOV's philosophy was to find and acquire assets that could be nurtured into future growth in spite of struggles they might have experienced as stand-alone companies. The company continues to lead in the area of selling ahead and has created record backlog to sustain itself far into the future. It is a forward thinking culture such as this which provides the fertile soil for a team like NOV's Engineering Technology division to grow and flourish in an industry that doesn't often see value in creativity.

Led by Corporate Vice President of Engineering Technology, Carl Fehres, the Engineering Technology team at National Oilwell Varco has become rooted in the idea that purposeful change is good, and they have made it their business to blaze a trail of new discoveries in technology to support the company's global community of 6000 engineers currently on staff. The group architects innovation by implementing tools to streamline processes while simplifying what it takes to get the work done in the field and to see results in the boardroom. This is where the work of shifting corporate community paradigms begins. Not by reacting to some unexpected morale crisis but by opening the door of exploration and inviting all comers to enjoy the fruit of that exploration.

Unification of thought and processes is always the great challenge before a company the size of National Oilwell Varco which has achieved growth through both sales and acquisitions. Even the most ambitious souls might consider it a herculean task to take on the process of unifying science-minded constituencies who are often content to remain aloof and self-sustaining. Not this group. Fehres' team has embraced the opportunity and is running straight at the target with the vision squarely in focus. The advent of NOV's Technology Village, internal social networks and Q&A sessions with SME's who might never have a platform or who may not ever consider the concept that their voice is one that can be heard and

harkened unto when their peers seek knowledge provide just a glimpse of how revolutionary this team's plan is.

NOV's Engineering Technology department and the bevy of tools that the team continues to develop are the tip of the iceberg; and the difference here is purpose. This team is driven by its purpose-to help NOV remain leader of the pack in oilfield services and drilling equipment manufacturing- and not by the deliverables associated with that purpose.

For these guys it's simple. The enterprise wins when its staff understands that everything they need is housed within the walls of the company. They are given to the belief that it is an incalculable victory when people are happy and feel supported and understand that their contributions and discoveries are both respected and recognized as not just of benefit to NOV but to the world at large. This team's concept of winning is rooted in a desire to create benefit and the possibilities are quite literally limitless. There is a school of thought that teaches that an open hand holds far more than a clenched one. As they go about the business of shifting paradigms and provoking new thought around old ways the team's hands are wide open. For that reason, there will be unity, there will be enthusiasm and buy in and the resulting shift in the collective global paradigm around the way National Oilwell Varco's engineers, chemists, technology leaders and scientists connect, share and explore will be nothing short of palpable.