Building a Roadmap to Integrated Operations

As Upstream Oil and Gas Operations become more complex and costly to operate, new and innovative ways of working are needed to maintain and improve profitability. The operating model that is emerging across the industry, that has the potential to tackle both the complexity and costs, is the concept of Integrated Operations (IO).

Organizational Space™

Whether it’s operating multiple offshore platforms, a vast geographical gas field or several SAGD Facilities, Operators are turning to IO in different ways to address similar challenges. While some Operators are far down the path of IO, others are travelling to Europe to investigate what potential it has for their business, establish some common definition and clarify why the journey to IO ought to be undertaken. Fundamental to this investigation is to be clear on the expected results. Is it reduced cost? Reliability and uptime? Reduced exposure? Currently there seems to be little clarity or consistency on the vision for the “end state” of the journey, with some having a bias towards the technology solution and others with a bias towards the organizational solution. Evolve’s approach is to focus clients on building a common, stretching, innovative and compelling vision for IO and developing a multi-year roadmap for the journey. Having an integrated view of all the various components that need to be in place, the appropriate timelines for implementation and the experiments and “target conditions” to be achieved is extremely valuable in aligning the organization around the why, what and how of Integrated Operations.

The Many “IOs”

Oil and gas operators have defined Integrated Operations in various ways, depending on the focus and priorities for driving value and innovation in their business. For some, IO refers to the use of cross-functional, often co-located, teams all focused on supporting asset performance and working through a robust integrated planning and scheduling system that ensures activities and resources are aligned and tightly coordinated. Others take IO to mean a specific operating model sometimes referred to as “remote operations”. In this case, operators have redesigned their systems, processes, structures and technologies in order to reduce the number of personnel actually on site (e.g., on an offshore platform, a processing plant or in the field at well sites) and perform daily monitoring and management of the asset from a distant location. Lastly, there are organizations that interpret IO as the way in which they have tied their upstream hydrocarbon producing activities with midstream operations and, ultimately, with downstream refining and export. Another way of describing this is vertical integration.

Evolve views IO as a combination of the first two senses: In the context of oil and gas production, Integrated Operations is a particular operating model that leverages cross-functional, process-based support teams, remote monitoring and collaboration technologies and coordinated planning and scheduling of activities to deliver a step-change in asset performance.

Moving towards Integrated Operations delivers benefits in the following areas:

- Reduced Risk Exposure and Enhanced EHS Performance
- Increased Production Optimization and Assurance
- Reduced Cost
Getting Started with the Key Concepts

Ensuring that the organization is aligned around what IO means and why the journey ought to be undertaken is critical. As one executive told us recently, following a series of field trips by leaders from his organization to Norway to see IO in action:

“Everyone came away from that visit with their own separate views of what Integrated Operations is. They saw the things that reinforced their own pre-existing views. They also saw IO serving different ends. Are we doing this to reduce cost? Are we doing this to increase production? We don’t have a firm view on this at the moment.”

Our recommendation is that the leadership team begins organizing their thinking around a few key concepts with an end to defining a clear and common vision for IO and a multi-year roadmap to begin the journey. These concepts are described below.

1 Target Operating Model (TOM)

The envisioned model for operating in the future that reconfigures systems, processes, people and technologies to create value for the business beyond that which can be delivered by the current way of working.

- What are the elements of your target operating model (e.g., Value Stream, Processes, Technology, Strategic Capabilities, People, Organization, Metrics)?
- How do you see the operating model evolve as it moves along the asset lifecycle?

2 Integrated Operations (IO)

A unique Target Operating Model being explored by oil and gas businesses to sustainably improve unit operating costs across the lifecycle of the asset. It is characterized by real-time monitoring of operations and tight integration of value-chain activities

- How will you define Integrated Operations? What is the overall scope and framework for your business?
- What is your vision for IO? How will a shift towards IO drive value in your business?

3 Next Target Condition (NTC)

An operation evolves through several intermediate stages of evolution as it transforms into the Target Operating Model. Each stage is considered a “next target condition” in order to focus near-term transition efforts.

- What are the intervening target conditions for the operating model from where you are now to where you want to be?

How might these target conditions be realized over time?

4 Implementation Roadmap

The set of themes, focus areas, programs, projects and metrics that are integrated into a single, multi-year plan in order to drive implementation and capture lessons learned about the journey towards the Target Operating Model.

- What is the integrated set of projects, initiatives, pilot programs and experiments that need to be executed in order to deliver each of the target conditions on the road to Integrated Operations?

How will this plan be executed? How will we manage the change to people, processes, systems and technology? Having a clear roadmap is the first step in answering these questions.

About Evolve

Evolve supports clients in Oil, Gas, Chemicals and Heavy Process industries to achieve substantial, sustainable results by supporting their major change efforts and helping them solve their toughest problems. We know that to implement strategy effectively and drive superior performance, requires a combination of working on the operating systems and processes, marrying this with supporting leadership, change and learning, that enables the results to sustain.