

## ***Testing “The Declaration of Independents”***

*Can Lean Project Organizations Reduce the Time and Cost to First Oil?*

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### *Is Bigger Always Better?*

The debate has been around for a long time: on one side, the major oil companies; on the other, the independents.

- The majors declare that:
  - Large engineering and project management organizations are essential to ensure predictable outcomes across their large project portfolios
  - Project economics and predictability are best served by staged & gated processes; these must be followed rigorously to ensure that all development alternatives have been thoroughly studied, all relevant best practices have been applied, and the selected approach is well-defined at sanction
  - Scoping, design and planning decisions, once taken, are to remain unchanged until first oil is achieved
  - While cost overruns on any given project are unfortunate, the main objective is the predictability and performance of the 100+ projects in the CapEx portfolio
- The independents declare that:
  - Lean organizations encourage cross-functional collaboration, speed up decision-making, and avoid non-value-adding optimization exercises
  - Project economics are best served by focusing on easily defined (even if non-optimum) solutions that can be sanctioned quickly and executed cost-effectively while minimizing the time to first oil
  - Scoping, design and planning decisions may be adapted to changing circumstances as the project evolves, reservoir definition improves, and commercial forces change
  - While the performance of their CapEx portfolio is important, the performance of one major project alone is often critical to the company’s revenue and valuation

This discussion will stipulate that the approach taken by the majors, which has evolved over decades, works well for that business model and is unlikely to experience significant change any time soon. On the other hand, the prevalence of independents as major players in international deep water is a relatively new phenomenon. For many, their business model is predicated on the competitive advantage gained from the effectiveness of their lean organizations.

How real is this advantage? And if it is real, what is needed to make it predictable and sustainable?

### *There's a Reason They're Called "Independents"*

There are numerous examples of small, independent oil companies bringing fields onstream in considerably less time and cost than industry average. From the Hamilton Brothers' use of an early Floating Production Facility for the Argyll field (North Sea) in 1975, to Triton's record-setting Cieba development (West Africa), to Kerr-McGee's best-in-class developments in the Gulf of Mexico, it is clear that certain key success factors can account for the independents' ability to develop fields quickly and cost-effectively.

An independent undertaking a major project is caught on the horns of a serious dilemma: on the one hand, the path to first oil must be as fast and cost-effective as possible; on the other hand, risks must be contained so that partners and shareholders remain confident in the outcome. Making matters even more interesting is the likelihood that some form of project finance is in play, placing additional constraints on the execution process. Conventional "project management best practices" do little to resolve this dilemma, so the independent has to craft a different approach. In defiance of conventional wisdom, successful independents often ignore some best practices and adapt others to fit their lean organizations and business models. It is by no means obvious how to do this, nor is it easy to do, but, when done carefully, the results can be impressive.

### *Lean Project Organizations – What Differentiates Winners?*

What are the key success factors, and how can lean organizations ensure they are in place for any given project? Experience suggests there are four success factors for Lean Project Organizations:

- **FIRST:** the Lean Project Organization must have a *complete and realistic understanding of all project risks, the associated cost and schedule risk exposure, and the opportunities for mitigation*

The ability to understand and capitalize on risk is a well-recognized characteristic of successful independents. Typically this capability extends to capital projects as well. Consistent with their flexible and adaptive culture, independents often view project risk as an opportunity to gain competitive advantage.

One area in which independents (and often their contractors) are willing to take calculated risks is in making early, strategic scope and design decisions even when they must be based on early reservoir or other critical design basis parameters. Recognizing the risks inherent in these early commitments, the design and planning is then progressed with allowances made for the possibility of later changes. Here the lean organization's characteristic of quick decision-making and subsequent flexibility in execution provide a measurable competitive advantage.

One might contrast this approach with the conventional wisdom that leads many larger organizations to stress the reduction of risk through rigid adherence to a "front-end loading" process and maximizing the allocation of risk to contractors.

Certainly not all projects operated by independents have managed risks successfully; many have experienced problems that provide important lessons learned from a technical and/or execution

perspective. The use of a small group of very experienced managers and staff, combined with an openness to input from outside the project are among the methods independents have traditionally used to ensure they understand the full range of project risks.

- SECOND: the Lean Project Organization must have a *complete and realistic understanding of the capabilities of the contractor organizations who will be delivering the project*

Few owner organizations have a good understanding of the contractors who perform the engineering, procurement, fabrication, transportation & installation, and hookup & commissioning of offshore projects. Fewer still have long-term relationships built on trust and a genuine win-win philosophy. This is not surprising; the engineering and construction industry is highly competitive, volatile, and even (at times) antagonistic. Suppliers of critical goods and services in any industry are, of necessity, guarded and commercially focused in any dialogue with a current or potential client.

Here, successful independents use their lean organization structure to advantage. Since the team leader is usually at an executive level, dialogue with contractors is between people with comparable authority who can establish a sound basis of trust. Innovative strategies for scope & change management, risk allocation, and execution can be quickly defined and each company's organization aligned expeditiously. Commercial terms can be tailored to project specifics, time-consuming bid cycles eliminated by sole-sourcing, and issues resolved expeditiously.

One might contrast this approach with the conventional wisdom that competition between contractors must be ensured at all stages of project development, and that the owner organization is best served by stringent contracts strictly administered.

Of course, not all independents have been successful in this regard. In the absence of an internal knowledge of the contractor community and of the critical factors for successful working relationships, the lean organization can easily default to large-organization-type contracting strategies which it is then unable to execute effectively.

NOTE: Step 1 - Gaining a complete and realistic understanding of all project risks - provides the basis for defining the independent's optimal contracting strategy.

- THIRD: the Lean Project Organization must have a *complete and realistic understanding of the competencies it must have in order to address the project's risks, make timely scope and execution decisions, and manage external stakeholders*

Independents typically have a Lean Project Organization as a matter of necessity, since the entire company is usually built this way. Faced with the reality of limited staffing, the independent must ensure that this does not become a self-imposed driver of failed projects.

Small project teams are not, simply by definition, an advantage. Clearly there is a risk that if limited resources result in critical competencies being unavailable, the project and perhaps the company overall will suffer at a cost far beyond the savings from minimizing headcount.

On the other hand, small teams can be advantageous *if the right competencies are in place*. The most successful independents have been able to identify these competencies and develop project staff accordingly.

What are the right competencies for a Lean Project Organization? The answer lies in understanding both the risks of the project and the capabilities of the contractors to be used. Every risk must be offset by a competency, either in the contractor's organization, the independent's Lean Project Organization, or both. Successful independents set up their lean project teams to work closely with contractors ensuring that the combined organizations are well-matched to the project's scope and risk profile.

One might contrast this approach with conventional wisdom in which a large owner organization is already in place, and contractors are selected based on their ability to work with that organization's processes, procedures, and culture.

NOTE: Step 1 - Gaining a complete and realistic understanding of all project risks, and Step 2 – gaining a complete and realistic understanding of the capabilities of the contractor organizations who will be delivering the project - provide the basis for defining the independent's optimal organization strategy.

- FINALLY: the Lean Project Organization must have a *“front-end” scoping, definition, and execution planning process that minimizes the time and cost to achieve project sanction and financial close*.

Lean organizations will not succeed if forced to use work processes designed for companies and teams that are much larger. The conventional approach, requiring rigorous adherence to a staged – gated “front-end” process works well for a “super-major” but will generally require far more time and effort (and front-end investment) than the independent's project economics can stand. Yet the dilemma noted earlier is very real: on the one hand, the path to first oil must be as fast and cost-effective as possible; on the other hand, risks must be contained so that partners and shareholders remain confident in the outcome.

Assume that the Lean Project Organization has completed the first three steps: risks are understood, the right contractors have been selected, and the combined organizations of the independent and contractors are well-matched to the project's scope and risk profile. This combined team is now ready to design a risk-driven fast-track front-end definition process designed to reach sanction and achieve financial close as quickly and cost-effectively as possible. This is done by carefully restricting the decision points and associated definition activities strictly to those that are essential to addressing commercial, financial, technical and execution risks.

Successful independents have inevitably found lean work processes to match their lean organizations, leveraging their adaptability to move quickly while controlling risk.

## *Summary*

Independents face numerous challenges when undertaking major projects, not the least of which is the necessity of planning and executing with a Lean Project Organization. Successful independents leverage the advantages of their lean organizations in order to deliver projects for significantly less time and cost than industry average. They do this by ensuring they have a full understanding of all project risks, as well as their own and their contractor's capabilities to manage those risks and deliver the required scope. Decision and work processes are tailored to the lean organization to capture efficiencies and reduce the time to sanction.

## About the author

Richard (Dick) Westney founded Westney Consulting Group in 1978. Based in Houston, the company provides an independent expert perspective for the full spectrum of energy industry operators and investors. The company helps clients gain an improved understanding of project risks, as well as the organization, contracting and execution strategies needed to complete the project predictably.

Westney Group's proprietary processes for Risk Resolution<sup>®</sup>, Contractor and Organization Due Diligence, and Front-End LEAN<sup>™</sup> assist Leveraged Project Organizations in implementing the four success factors outlined in this paper.

Author of five books on project management, Dick Westney served as visiting faculty in construction management at Texas A&M and Stanford Universities, as well as the Norwegian Institute of Science and Technology. A Fellow, Past President and Award of Merit recipient from the Association for the Advancement of Cost Engineering (AACE International) he is currently on the Executive Advisory Board of the Engineering & Construction Contracting Association. He is a graduate of the City College of New York, Rensselaer Polytechnic Institute, and Harvard Business School.