bcg.perspectives
by THE BOSTON CONSULTING GROUP

ENHANCING VALUE IN NON-OPERATED OIL AND GAS VENTURES

HOW TO FOCUS RESOURCES, REDUCE RISK, AND IMPROVE PERFORMANCE

By Philip Whittaker and Christopher Young

Upstream oil and gas companies are skilled at maximizing the value of their operated assets. Yet when it comes to their non-operated portfolios, many leave value on the table by failing to approach these critical assets with rigor, consistency, and focus.

The Boston Consulting Group has found that an enhanced approach to non-operated ventures (NOVs) can bring stronger strategic alignment, better resource allocation, improved value capture and risk reduction, and a strengthened reputation with operators and other stakeholders. This article explains why the approach works and sets out a framework for making it happen.

NOVs: Key Components of Exploration and Production Portfolios

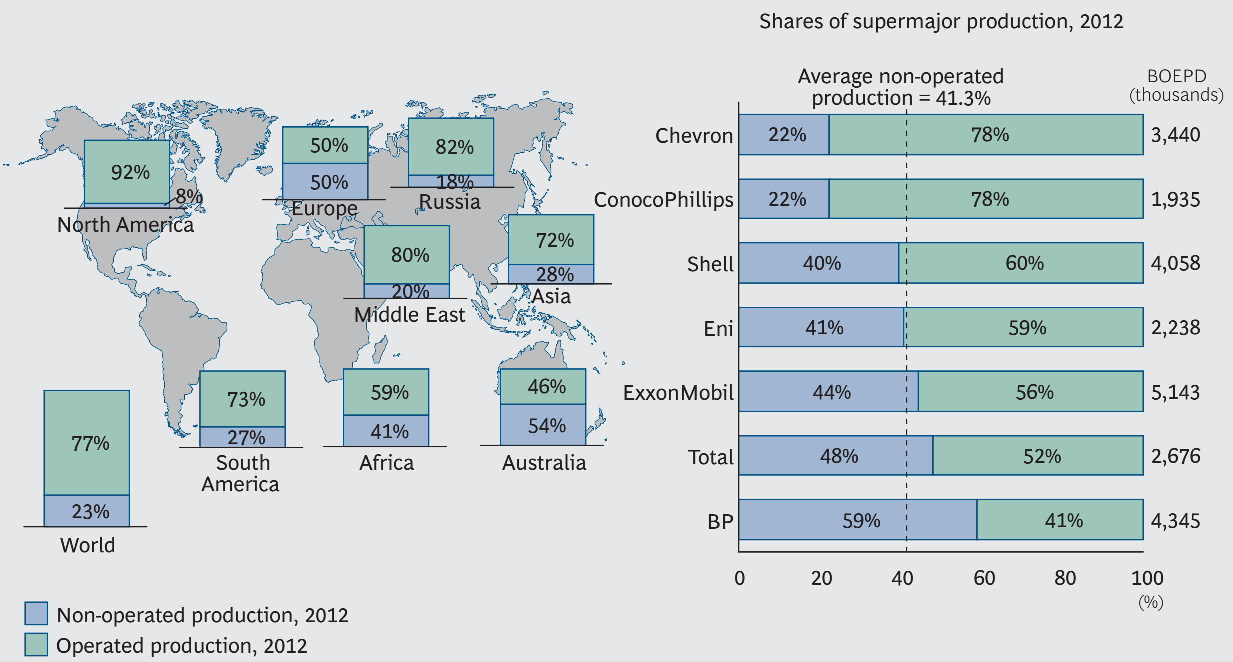
Most upstream companies are operators that work hard to build best-in-class operational capabilities. But given the ubiquity of joint ventures, NOVs also play a fundamental role in the industry. Globally, 23 percent of equity production is delivered through non-operated stakes, with the figure rising above 50 percent in some regions. And NOVs account for a large share of exploration and production (E&P) portfolios: between 22 and 59 percent of supermajor production is operated by others. (See Exhibit 1.)

NOV Risks Are Getting More Attention

Some E&P players view NOVs as a relatively safe part of their portfolios—to the point that they approach them with benign neglect. Thus, their NOV governance tends to lack the structure or consistency that they apply to their operated business. For example, even within the same firm, NOVs can be managed alongside operated assets, within dedicated NOV units, or in a variety of hybrid models with varying rigor in governance and visibility.

This detached and unsystematic treatment is at odds with the non-operators' and the operators' shared responsibility for the

Exhibit 1 | NOVs Account for 23 Percent of Global and 41 Percent of Supermajor Production



Sources: Rystad Energy UCube; BCG analysis.
Note: Production figures include crude, condensate, gas, and natural gas liquids; NOV = non-operated venture; BOEPD = barrels of oil equivalent per day.

success or failure of their ventures, just as company shareholders and boards are ultimately responsible for the conduct and performance of the management teams they appoint.

The magnitude of risks facing non-operators—even in mature, "low risk" locations—was brought home by the 2010 Deepwater Horizon disaster when BP's non-operating partners Anadarko and Mitsui found themselves exposed to billions of dollars in potential liabilities.

It should be no surprise that the industry-wide reappraisal of risk catalyzed by the Deepwater Horizon incident included more robust partner appraisals and risk assessments.

NOV Value Is Still Left on the Table

This industrywide tightening of standards and reviews was a long overdue improvement, but it has not led to the step change in effectiveness that we believe is possible. The reason for this lack of effectiveness is that improved risk management is just one aspect of the NOV picture. Our observations suggest that many non-operators still fail to maximize the value of their non-operating participation.

We see three main sources of value loss:

- *A Nonstrategic Approach.* Many E&P companies treat each NOV asset as an isolated entity. This means that the larger concerns—what the company is trying to achieve strategically, what it is trying to learn, and the role that the asset plays in the bigger risk picture—are being ignored.

- *Inconsistency.* Across a company's portfolio, we would expect that any two NOV assets with similar risk profiles, partners, technical challenges, and value might be managed in similar ways. This, however, is rarely the case. Instead, NOV approaches are, in many cases, driven by the inconsistent preferences of local managers or by history, and thus fail to take advantage of proven approaches toward achieving optimal performance.

- *Lack of Priority.* All E&P companies have limited technical and commercial resources. In many cases, the understandable need to drive effective performance of operated assets leads companies to treat NOVs as the lowest priority. In most companies, NOV management is seen to be neither appealing nor career enhancing. And as a consequence, too many NOVs are monitored in line with minimum operating agreements, and technical committee meetings are the only activities in which non-operators participate meaningfully.

In many companies, these conditions are compounded by cultures that regard being in an NOV position as an undesirable, second-best compromise. Thus, many staff members express the ambition to operate more, and they couple that ambition with the concern that NOV positions are no better than equity investments, with little value beyond cash flow.

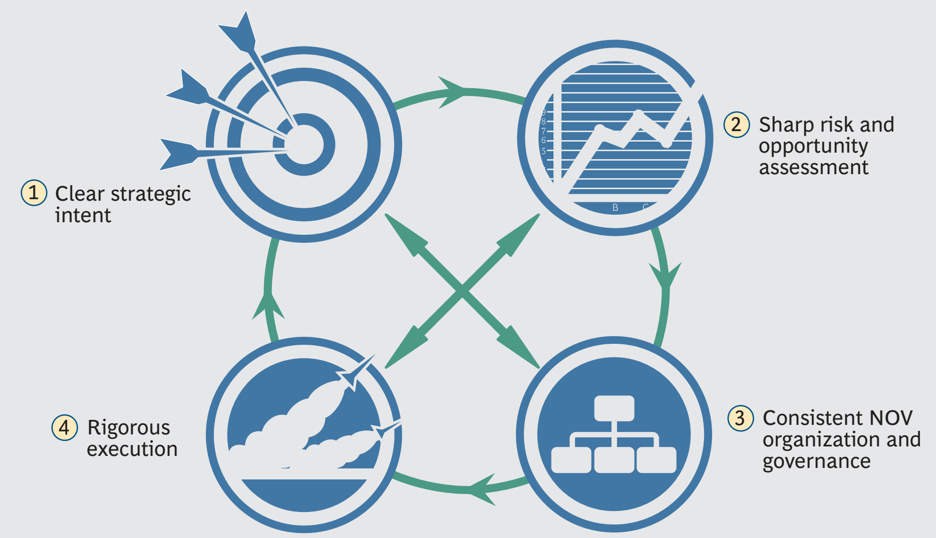
A Value-Maximizing Approach to NOV Management

In most cases, a company can deliver greater value through its NOVs by introducing the same level of discipline and focus that it already brings to operated assets. This isn't about one-size-fits-all solutions. It is about creating consistency in decision making and certainty in execution. Effective non-operators know where to focus their resources, and they are skilled at applying technology, geological insights, or commercial know-how in ways that add value to their NOVs and build credibility with operators.

Four elements must be in place for non-operators to raise their game. (See Exhibit 2.)

- Clear strategic intent about what each NOV asset contributes to broader company goals
- Sharp risk and opportunity assessment
- Consistent NOV organization and governance
- Rigorous execution strategies for each NOV asset

Exhibit 2 | Four Building Blocks Support a Successful NOV Approach



Source: BCG analysis.
Note: NOV = non-operated venture.

Clear Strategic Intent: The Role of the NOV Asset

The first step is to gain strategic clarity about what each NOV asset brings to the company. This is harder than it might seem. Companies almost always have a view of expected production and cash flow for a given asset, but other goals may be vague or may apply only to the portfolio as a whole.

We believe that maximizing NOV value requires hard thinking and alignment up front about what the company wants to achieve with each asset and how big the stakes are. This means that two things must happen. First, the company must have an overall strategy that gives clear guidance about what it is trying to achieve and exactly how it will achieve it. For many E&P companies, strategies are little more than production profiles, country preferences, a desired oil-gas balance, and target operated-non-operated mix—all necessary but insufficient conditions for a more explicit strategy. Second, the company must be fully aligned on how each NOV asset relates to this overall strategy.

Companies should execute a consistent and structured process to define what each NOV asset brings to their broader portfolios. In addition making to traditional technical and economic assessments, leading operators raise questions such as the following:

- Does the asset require special capabilities that we are uniquely positioned to provide?
- Does the asset have strong synergies with other parts of our portfolio?
- Does the asset give us the chance to deepen our subsurface knowledge of a basin?
- Will the operator apply technologies that we must master or that we need to explore and understand?
- Does the asset offer an opportunity to enhance staff capabilities?
- Can the asset help us deepen our relationships with our partners, host governments, or other stakeholders?

These questions provide a good window into the asset's potential strategic role while providing an initial view into the intensity of the required NOV approach.

Sharp Risk and Opportunity Assessment

This element is a clear-eyed and objective risk and opportunity assessment of the operator and the venture. This assessment, when combined with the role of the asset in the company's portfolio, should drive decision making about the resources and level of intensity required for the non-operating role.

Operator assessment is key. A non-operator working with a trusted, longstanding operating partner on assets with clearly understood technical and commercial dimensions (for example, ExxonMobil's decades-long North Sea partnership with Shell) might apply a much less intensive approach than it would for other assets with greater challenges and risks. An operator assessment should include questions such as the following:

- Is the operator experienced and capable, given the subsurface characteristics of the asset?
- Is the operator employing proven technologies that it understands well?
- Is the operator a strong performer on asset productivity, cost, and efficiency?
- Is there absolute alignment between the operator and its partners on the technical, commercial, and regulatory approach to the asset?
- Does the operator have a strong record with key contractors for this type of environment?
- Are the operator's health, safety, security, and environment record and approach robust?

- Is the operator's ethical approach aligned with our own?

Similarly, the *venture risk* of each NOV must be analyzed. Venture risk assessments should include, for example, determination of the uncertainties related to resource size or character and to the application of technologies for the asset (for instance, the application of unproven or nonstandard approaches such as those used in the Snøhvit Arctic LNG project or emerging approaches to high-pressure, high-temperature E&P). In addition, commercial and economic uncertainties related to, for example, fiscal terms, project sensitivities to oil and gas prices, and potential cost inflation, as well as contractor risks resulting from complexity or potential misalignment, should be examined.

Finally, political and reputational risks, including the impact of heightened regulatory oversight in the post-Macondo world, should be scrutinized. These include the potential for political instability that could threaten project success or the safety of teams on the ground, the likelihood of ethical challenges through perceived government corruption, and the potential for adverse attention from NGOs and other actors.

Consistent NOV Organization and Governance

A variety of organization and governance models are effective for managing an operator's NOV participation. But essential to all of them are clarity, consistency, and efficiency. Each model must offer the non-operator the same level of assurance and visibility of its NOVs that it has for its operated business.

When NOV assets lie close to a company's operated portfolio—as is the case for many North Sea and Gulf of Mexico operators—many NOVs are best governed within the operated business unit. This approach offers local technical knowledge and the ability to identify synergies, and it can roll NOV-related corporate-planning processes into the business unit's broader activities.

More isolated NOV investments, on the other hand, can—if their scale warrants it—be managed locally, or several smaller investments can be pooled in a central unit. In either case, the line of sight to senior management should be as clear as it is for the operated business.

Irrespective of the organization model, a governance framework must be established that addresses such questions as the following:

- How will *processes* be aligned with the operator for activities such as project delivery, investment approvals, and technical assurance? For example, in some instances a non-operator runs a full "shadow" process for critical investments, while for most others, the operator's approach will suffice.

- How will the *planning and budgeting calendars* of the operator and partners be coordinated to avoid frustrating delays in approvals?

- How frequently will *audits*—particularly those related to health, safety, security, and environment—be conducted, what will they focus on, and whose participation will be required?

Rigorous Execution Strategies for Each NOV Asset

With the completion of the assessments of the strategic objectives for the asset and the reviews of operator and venture risk, the company can bring together key regional and functional staff to create a plan for the NOV asset. To ensure successful execution of the non-operating approach, this plan should address the following fundamental concerns:

- The company's objectives for the asset and how it will achieve them

- The resources it will devote to the asset (for example, full-time shadow teams with a range of technical and commercial expertise, a small full-time team drawing on part-time resources from other assets, oversight by a group looking after multiple NOV assets, and part-time attention from teams working nearby operated assets)

- The expected timing and character of interaction—ranging from involvement for major milestones and ongoing technical and commercial committee meetings only, all the way to staff secondment—with the operator and other stakeholders

- Monitoring plans and triggers for intervention going forward, including traffic light arrangements that will facilitate heightened reviews or activity

The result of this planning process and the ongoing execution efforts that come out of it will be a variety of approaches across assets, each approach providing the resource intensity required. These approaches might range from minimalist equity positions to full shadowing.

Benefits of an Enhanced Approach

Designing and implementing an enhanced approach to NOV planning and execution can require substantial upfront thinking about company strategies and portfolios and can also involve the design and rollout of new templates and processes. But once initial work is complete, the new approach should be relatively straightforward and nonbureaucratic. A workshop format for asset reviews and decisions is particularly useful for creating an engaged and transparent atmosphere that avoids formal compliance and box-ticking.

When properly implemented, an enhanced approach to NOV assets can offer four substantial benefits:

- *Stronger Strategic Alignment.* The role of every NOV asset in the portfolio is clear, and the company is positioned to drive NOV performance and create improved delivery of its overall strategy.

- *Better Allocation of Scarce Company Resources.* Technical and commercial expertise is applied systematically where it is needed most.

- *Improved Value Capture and Reduced Risk from NOVs.* The company has a better understanding of where it adds value as a non-operator and the risks it faces, and consequently, it becomes more effective at delivering future asset plans.

- *A Strengthened Reputation with Operators and Other Stakeholders.* The enhanced approach makes the company a better partner, creating real differentiation from competitors and providing improved access to new opportunities.

These benefits can be realized across almost all NOV assets, even in existing NOVs in which joint operating agreements cannot be renegotiated.

Putting the New Approach in Place

Four actions are needed to begin the transition to a new approach:

- A thorough examination of the strategy to ensure that there is real clarity about goals and priorities

- An objective, top-down review of the current state of the NOV portfolio and its relationship to operated assets

- Agreement on how to align standards and processes with operators, using approaches tested on selected assets to fine-tune and build credibility with the line

- Cascaded application to existing assets and the introduction of reviews for new assets

To succeed, the new approach should use a light-touch pragmatic style that focuses on high-value improvements and never introduces processes for their own sake. Commitment from leaders and managers and a robust approach to design and implementation should quickly result in improved NOV resourcing, management, and alignment with partners.

About the Authors

Philip Whittaker is an associate director in the London office of The Boston Consulting Group. You may contact him by e-mail at whittaker.philip@bcg.com.

Christopher Young is a principal in the firm's London office. You may contact him by e-mail at young.christopher@bcg.com.

The Boston Consulting Group (BCG) is a global management consulting firm and the world's leading advisor on business strategy. We partner with clients from the private, public, and not-for-profit sectors in all regions to identify their highest-value opportunities, address their most critical challenges, and transform their enterprises. Our customized approach combines deep insight into the dynamics of companies and markets with close collaboration at all levels of the client organization. This ensures that our clients achieve sustainable competitive advantage, build more capable organizations, and secure lasting results. Founded in 1963, BCG is a private company with 78 offices in 43 countries. For more information, please visit bcg.com.

The BCG Game-Changing Program
We are living in an age of accelerating change. The old ways are rapidly becoming obsolete, and new opportunities are opening up. It is clear that the game is changing. At The Boston Consulting Group, we are optimistic: we think that the fundamental drivers of growth are stronger than they have ever been before. But to capitalize on this trend, leaders need to be proactive, to challenge the status quo, to make bold moves—*they* need to change the game, too. The decisions they make now, and over the next ten years, will have an extraordinary and enduring impact on their own fortunes as well as on those of their organizations, the global economy, and society at large. To help leaders and to mark our fiftieth anniversary, BCG is pulling together the best ideas, insights, and ways to win—to own the future. This report is part of that endeavor.

1/13