# *Alliances in upstream oil and gas*

**David Ernst and Andrew M. J. Steinhubl**

*There are at least five different kinds of alliance. All can work*

*Consolidation deals in North America could unleash $25 billion in shareholder value*

*Players should learn from HP, Lotus, and Xerox*

OIL AND GAS ALLIANCES are set to unlock many billions of dollars of shareholder value in years to come, generating new growth for the industry. Already, Shell and Amoco have pooled most of their west Texas oilfields to become the first majors to combine operations across an entire region. Shell and Mobil are doing the same on the west coast. Amoco has linked its Austin Chalk seismic data and resources position in Louisiana with Union Pacific Resources Group (UPR). And in the deep waters of the Gulf of Mexico, Texaco and others have established the Deepstar consortium to cut costs and cycle times.

According to most oil companies, alliances will play an important role in reshaping the industry over the next five years. In a recent survey, we found that 84 percent of senior managers from leading US and Canadian oil companies expect alliances rather than internal operations to be the main source of performance improvements (Exhibit 1). Alliances are often preferred to acquisitions and divestitures because they bypass or reduce the valuation, tax, and regulatory issues associated with outright changes in control, and allow both parent companies to retain oil reserves as a hedge against price increases.

For some participants, alliances are a way to build strengths, shore up weaknesses, extract latent value from assets, and make preemptive moves to retain or regain leading market positions. For others, they offer an opportunity to improve performance when the scope for cutting internal costs and reengineering business processes has been exhausted.

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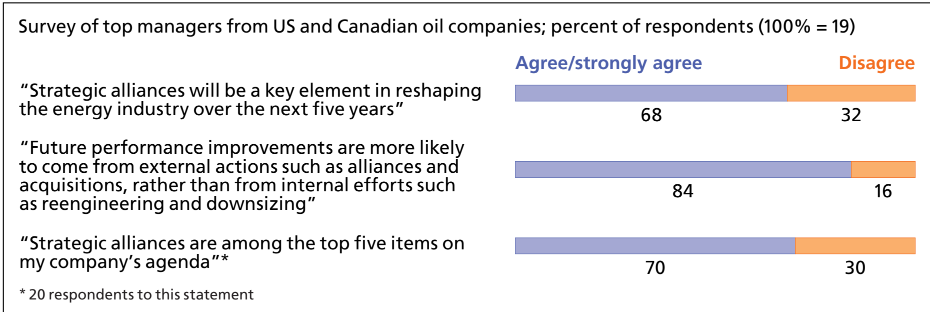
Exhibit 1

**Perceptions of alliances**

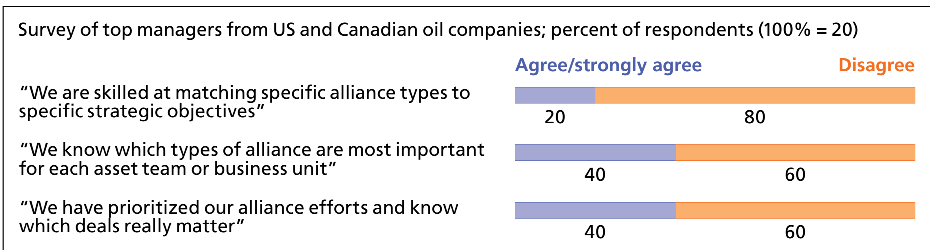



Whatever their purpose, alliances hold out the promise of attractive financial benefits. In North America alone, alliances could unlock about $40 billion in shareholder value: $25 billion from consolidation, $10 billion from partnerships between majors and specialists, and $5 billion in outsourcing. Other regions such as the North Sea also show substantial potential.

Yet despite alliances' compelling economics and growing popularity, only 20 percent of oil companies believe they are skilled at matching different types of alliance to specific objectives, and less than half believe they have tailored their alliance approaches to particular oilfield assets or geographic business units (Exhibit 2). This is bad news, because these are exactly the skills oil companies need to harness the shareholder value at stake.

Exhibit 2

**Doubts about handling of alliances**




Five emerging types of alliance are especially relevant to the upstream oil industry (Exhibit 3):

- Consolidation joint ventures
- Alliances with specialists
- Enhanced supplier relationships and outsourcing alliances
- Advantaged networks of producers and suppliers
- New operated-by-others (OBO) relationships.

## Consolidation joint ventures

The consolidation joint venture combines parent companies' assets across a wide area of activities. Potential benefits include greater efficiency in the use of equipment and infrastructure, lower labor costs, an extended life for oilfields and increased recoveries from them, more bargaining power with suppliers, and the sharing of best operating practices. At their best, such ventures enable majors to maintain or reclaim a structural advantage over specialist companies with lower operating costs or distinctive skills. As North American oilfields mature, companies that move quickly to form effective alliances may enjoy enhanced staying power and new opportunities for growth.

Consolidation ventures are most appropriate in regions where production has peaked and ownership and operating structures are fragmented. The Altura

Exhibit 3

### Alliance types

| | E&P examples | Other industry examples | Requirements for success | Primary source of value | Most relevant oil arenas |
|---|---|---|---|---|---|
| **Consolidation joint ventures** | Shell–Amoco in the Permian Basin<br>BP–Arco's Alaska collaboration on maintenance, operations, procurement, transport, drilling | British Aerospace–Matra Marconi (aerospace) | Choosing the right partner and acting preemptively<br>Detailed pre-deal planning<br>Rapid integration<br>Creating a new culture | Combining overlapping positions for scale; skills transfer; market leadership | Mature "big oil" areas |
| **Alliances with specialists**<br>Technological/ regional "basin master" | Amoco–UPR in the Austin Chalk region | Pharma/ biotech ventures | Allowing sufficient autonomy; not squashing the specialist's advantages<br>Retaining specialist's top talent<br>Creative deal structuring to align incentives<br>Bringing learning in house | Combining land and complementary skills | Emerging open arenas |
| Low-cost "bare-bones" operator | Amoco–Apache<br>Kerr McGee–Devon | GM–Isuzu (small cars) | Retaining top talent<br>Creative deal structuring | Applying tailored business approaches to mature assets | Mature open arenas |
| **Enhanced supplier relationships** | BP–Brown & Root in North Sea maintenance<br>BP–Arthur Andersen | PNC Bank–First Data Bank (bank processing) | Identifying right activities to outsource<br>Maintaining control over the value chain<br>Striking appropriate balance between competitive sourcing and benefits of extended agreements | Leveraging suppliers' skills against specific activities; increasing focus on core activities | All |
| **Outsourcing alliances** | Shell–Baker Hughes in Gulf of Mexico<br>Mobil–Halliburton in west Texas | Chrysler–Lear (car seats) | Developing new, integrated communication approaches<br>Determining new performance metrics<br>Linking supplier returns to system performance<br>Eliminating overlapping functions | Capturing benefits of integrating supplier and producer activities | All |
| **Advantaged networks of producers and suppliers** | Texaco Deepstar<br>BP Andrew Field | Boeing | Ensuring clear partner roles (role of dominant partner easiest to define)<br>Managing communications among multiple partners<br>Tailored financial arrangements<br>Linking with key partners to create supply or technology-based advantages | Reducing system costs and cycle time; advantaged technology position | Deep Gulf; other complex exploration frontiers |
| **New OBO* relationships** | Multiple | Technology companies | Performance contracts with teeth<br>Effective mechanisms to benchmark performance and exchange skills<br>Partners that are contributors, not shadow auditors | Improved performance; capability sharing; reduced administrative costs | All |

* Operated-by-others

## TYPES OF ALLIANCE IN NORTH AMERICAN E&P

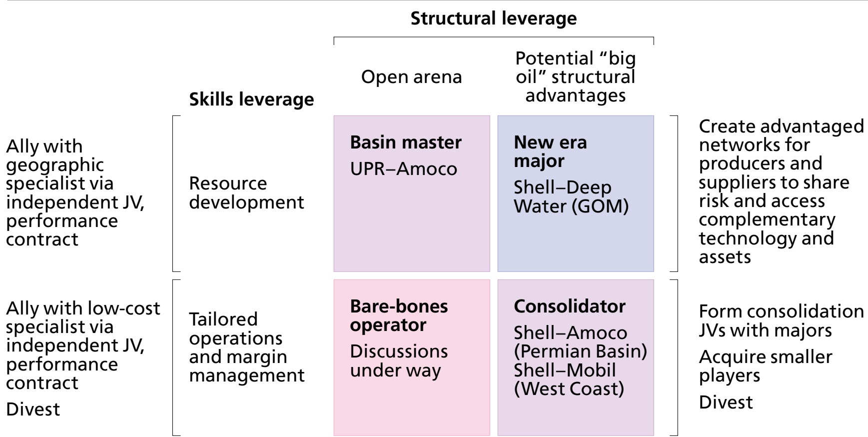
Only 40 percent of the oil exploration and production executives in our survey felt their organizations possessed the tools to identify and evaluate the alliance opportunities available to them. One approach to developing a coherent alliance strategy in North America or elsewhere would be to classify oil-producing regions according to the scope they offer for structural advantage (in scale and infrastructure, for example) and skills advantage (superior geophysical knowledge, say, or ability to operate at low cost). On this basis, each region can be matched to one of four winning models: consolidator, new era major, basin master, and bare-bones operator.

The exhibit shows which alliance models are best suited to each type of basin. Consolidation joint ventures (bottom right) are likely to have the greatest impact in mature basins where scale and infrastructure are the route to competitive advantage. Alliance networks (top right) suit areas where scale and infrastructure remain important, but need to be complemented by resource development, technology, integrated project management, and other skills to create an advantage for new era majors.

In open arena positions where there is limited scope for structural advantage (left-hand side of the exhibit), alliances with specialists – either "basin masters" (companies skilled in the intricacies of developing a particular regional niche) or "bare-bones operators" (companies with very low-cost operations appropriate to mature assets) – will create the greatest value.

The remaining alliance types – outsourcing, enhanced supplier relationships, and upgraded OBO approaches – are suited to many types of basin.

**Winning alliance models**




joint venture between Shell and Amoco in the Permian Basin of west Texas and the partnership between Shell and Mobil on the west coast are examples. This approach is also relevant to mature assets in the North Sea and elsewhere.

Consolidation can take several forms. Partners can merge all their operations, assets, and underground reserves, or form an above-the-ground joint venture

services company in which each partner retains the ownership of reserves, operating licences, and even capital equipment. Full consolidation of reserves and other physical assets may offer greater value, but it also presents more hurdles, as valuing reserves, meeting regulatory requirements, and persuading minority shareholders to accept the consolidation can cause difficulties.

Consolidation ventures are like mergers in the management challenges they pose. The parent companies must act quickly to minimize disruption to each organization; decide key issues (such as how they will carry out the integration, who will lead the new entity, how the parents will govern it, and how capital will be allocated) before they conclude the deal; and ensure they harness the benefits from the transfer of skills such as improved drilling cycles or supplier management.

Of the $25 billion in shareholder value that consolidation could represent to the North American industry, $10 billion would come directly from lower costs and the rest from the adoption of best operating practices and the more intensive exploitation of existing properties. Altura, for example, is expected to cut costs by 50 cents per BOE (barrel of oil equivalent) produced, according to public statements. Its parents hope that by reproducing the focused culture of the independent operator, Altura will achieve a performance comparable to that of specialist producers such as Torch Oil or Enron Oil and Gas, which have highly tailored, incentive-driven, entrepreneurial organizations.*

While relatively new to upstream oil companies, consolidation alliances have often been used in other areas of the oil business. British Petroleum and Mobil, for instance, expect to save more than $500 million a year by combining their European refining and marketing operations.

## Alliances with specialists

Whereas consolidation deals rationalize overlapping oilfield assets and operations, specialist alliances combine complementary capabilities such as low-cost operational skills, geographic experience, and large asset positions. In allying with specialists, oil companies hope to replicate the results giant drug companies have achieved by harnessing the entrepreneurial culture of innovative biotechnology companies or the streamlined business approaches of generic drug manufacturers.

In oil, such alliances marry the resources and technology of a major company with the knowhow, business approaches, and cost structure of a smaller specialized operator. They are appropriate in areas such as Austin Chalk

* *See* Timothy Bleakley, David S. Gee, and Ron Hulme, "The atomization of big oil," pp. 122–42.

in Louisiana, where Amoco has a 50/50 joint venture with Union Pacific Resources Group. Amoco contributed 75,000 acres of land and extensive three-dimensional seismic data to the deal; UPR brought, among other things, its expertise in the type of horizontal drilling required to exploit the field. They are less suitable for areas where oil companies would face immense exploration costs, such as the deep Gulf of Mexico, or need massive infrastructure, as in Alaska's North Slope.

Opportunities exist across North America for majors to ally with specialists, many of which are keen to extend beyond their original territory but find that large areas of attractive land are controlled by the majors. Renaissance, for example, enjoys advantages in terms of scale, cycle time, and operational drilling costs in the Cretaceous Basin in Canada; Parker & Parsley has a similar standing within the west Texas Sprayberry Trend; and Flores & Rucks has operational and financing advantages in the Gulf of Mexico shelf, where the majors currently hold large positions. Specialists may also bring distinctive skills in south Texas, the Louisiana transition zone, and central Alberta. All told, partnerships with specialist operators in North America could create $10 billion in new shareholder value.

Whereas a consolidation alliance calls for the creation of a single culture, here the challenge for a big oil company is to preserve the unique culture, skills, and approaches of its smaller specialist partner. The handling of specialist alliances in other industries suggests several ways to increase the chances of success. Parent companies should let go of day-to-day operations but retain control of critical areas such as environmental compliance and major capital expenditure. They should also take steps to secure key talent. Just as pharmaceutical companies hand-pick biochemists from their biotechnology partners and use contractual provisions, earn-outs, and other compensation mechanisms to lock them in, so major oil companies should specify which of their partners' personnel will operate their assets.

The challenge for a big oil company is to preserve the unique culture, skills, and approaches of its smaller specialist partner

The larger company needs deal-making skills to enable it to relinquish the right amount of control while negotiating a contract that guarantees a minimum level of performance (the oil production rate, for example) and providing incentives for the partner.

## Enhanced supplier relationships and outsourcing alliances

About 75 percent of the oil industry's upstream capital expenditure is sourced externally. Historically, major companies paid a straight fee for service or bought supplies and equipment from contractors. These purchases have

## INSTITUTIONALIZING ALLIANCE SKILLS

According to the oil exploration and production managers we surveyed, the biggest obstacle to forming alliances is the difficulty of assessing and negotiating multiple alliances that have been initiated at various points within an organization. This is a problem shared by most industries.

Oil companies could learn from Hewlett-Packard, Lotus, and Xerox, each of which took only three years to establish a world-class infrastructure for alliances. These companies have built sets of capabilities that enable their alliance experiences to be shared rapidly across their entire organization. Their approaches share certain features:

- **Tools and processes.** These include best-practice guidelines, toolkits, detailed checklists for analysis and negotiations, internal contracts, sample letters of intent, joint venture contracts, and internal and external case examples. Companies that have not invested in building alliance skills tend not to have these resources, or do not make them available systematically.

- **Partner hierarchies.** Companies can speed up resource allocation by arranging their partnerships in order of priority. Xerox, a prolific user of alliances, divides them into three groups: fundamental business-shaping joint ventures (such as its relationship with Fuji); strategic alliances with companies it sells to, through, or with; and supplier and outsourcing relationships (*see* exhibit). At Lotus, a top-tier partner is entitled to its own dedicated alliance manager.

- **"Lean" alliance units.** Most world-class companies have a small corporate alliance group that takes on support roles such as internal consulting, training, structuring equity alliances (HP), coordinating relationships across business units (Xerox), and managing alliances from day to day (Lotus).

- **Communications platforms.** Internal electronic databases are used to track partnership activities. Alliance intranet sites encourage open discussion about partnerships.

- **Human resources policies.** Specific performance measures are devised for managers charged with negotiating or managing alliances.

Our research into dozens of companies in various industries suggests that the ability to institutionalize alliance skills has benefits above and beyond better and faster deal-making. A well-honed approach to negotiating and structuring partnerships can help a company not only improve the performance of its alliances but also develop a reputation as its industry's preferred partner, placing it in the middle of the deal flow and opening up numerous opportunities not enjoyed by competitors.

### Ranking alliances and partners

| Hierarchy of opportunity | Xerox examples | E&P alliance examples |
|---|---|---|
| Protect core business<br>Reshape industry | Fuji Xerox | Preemptive area-wide consolidation joint venture |
| Restructure business unit | 25 strategic partners (eg, IBM, AT&T) | Trade properties for spare plant capacity |
| Improve operations | Hundreds of suppliers and technology partners | Outsourcing of specific field services |

evolved toward enhanced supplier relationships and outsourcing alliances that go beyond ordinary transactional arrangements and involve the sharing of risk and reward.

One example of an innovative supplier/contractor alliance is that between Schlumberger and Amoco in the Northwest Hutton Field in the North Sea, where Amoco was considering abandoning a platform complex. Schlumberger, which already worked with Amoco in this area, offered to broaden the relationship to increase production. A joint taskforce identified anomalies in recovery rates compared with similar North Sea fields, presenting an opportunity to raise output and defer the costs of abandonment. Both partners invested in enhancing the field, recovering their investments pro rata. In return for sharing risk, Schlumberger participates in a gainsharing arrangement rather than being paid on a fee-for-service basis. To date, the partnership has been successful: with limited investment, both companies have increased production.

Some companies have recently extended outsourcing into logistics, well operations, and even field development planning

Mobil and Halliburton have launched a similar arrangement in which Halliburton plans to invest $10 million to drill five horizontal wells in Mobil's Parks Devonian field in west Texas in return for a percentage of production. Halliburton invests risk capital and acts as overall project manager, providing drilling and completion rigs, wellsite facilities, and subsurface products and services. It also manages all third-party inputs. Mobil brings assets, knowledge of the field, wellsite supervision, and wellbore construction engineering. If the venture is successful, the arrangement could be extended to 15 horizontal wells.

The agreement is an example of how oil majors and service companies can craft win–win partnerships. Mobil enhances its resource development while focusing its capital and resources elsewhere. Halliburton expands its activities while sharing in revenues from the field. In addition, both companies should gain valuable insights into structuring and managing innovative supplier arrangements that will be applicable in other arenas.

Outsourcing is also becoming more common in the oil industry, often as a result of consolidation alliances. British Petroleum has saved at least 30 percent on its accounting and finance by outsourcing these functions to Arthur Andersen in the United Kingdom, and expects to make comparable savings from similar moves in the United States. Other companies have recently extended outsourcing into logistics, well operations, and, in selected cases, field development planning. In a recent speech, Phil Carroll, president of Shell Oil in Houston, predicted that oil companies will outsource up to

40 percent of their activities over the next ten to 15 years. All told, outsourcing could unlock $5 billion for the North American oil industry.

## Advantaged networks of producers and suppliers

Alliances with multiple partners go beyond enhanced supply arrangements with individual companies. As with Boeing or Pratt and Whitney, an oil major or services company acts as a "systems integrator," orchestrating a set of alliances and contractual relationships involving suppliers, service providers, and even other operating companies. The aim is to reduce overall system costs and cycle times and to ensure access – sometimes preemptively – to crucial technology and inputs. These networks are most relevant in technologically complex frontier regions such as the deep waters of the Gulf of Mexico, the east coast of Canada, and the deeper or rougher parts of the North Sea where exploration and development are expensive and risky.

BP's experience with Andrew Field in the North Sea shows how majors and service companies alike can benefit from an alliance network. Andrew Field, which contains reserves of more than 120 million BOE, was discovered in 1974, but development costs were believed to be prohibitive until recently. Even so, BP formed an alliance of seven partners in 1993 to plan and execute the field's overall development. Each partner stood to gain if the project came in under budget. The collective effort resulted in savings of 20 to 25 percent, with actual project costs estimated at £290 million. Production was able to begin six months ahead of schedule.

The Deepstar alliance initiated by Texaco involved more than five dozen suppliers (and several other majors) in settling on standard components for platforms, pipelines, and wells in waters deeper than 3,000 feet. A coordinated network like this offers the opportunity to make components more cheaply and enables majors to link wells in a common pipeline infrastructure.

The elements that make bilateral alliances successful – strong partners, clear objectives and decision-making powers, and common financial incentives – apply equally to alliance networks. But when more than two join the dance, the challenges multiply: managing communications, tailoring financial arrange-ments to reflect each partner's contribution and ability to absorb risk, and managing the risk that proprietary capabilities may be transferred inadvertently.

## New OBO relationships

For decades, major oil companies have participated in exploration joint ventures in which one partner assumes full responsibility for operations and others act simply as investors. These relationships are known as OBOs

(operated by others). The non-operating partner typically receives detailed reports but has little management influence.

This binary approach – "you operate or we operate" – differs from that taken toward joint ventures in other industries, where both partners usually contribute people, technology, and assets and play a real role in management and governance. When leading technology companies enter alliances as minority partners, for example, they often specify required performance levels. If these are not met, they may renegotiate the financial or governance structure of the deal (by increasing their influence, say, or abandoning the arrangement).

There are rumblings of change in petroleum OBO relationships. Several major oil companies are considering how to streamline the administration of OBO positions. Others have started to consolidate OBO holdings into operations with fewer partners and larger stakes, reducing administrative costs. And as in other industries, minority stakes are beginning to be seen as a vehicle for learning and sharing technology and process knowhow. More work lies ahead, however, before the full potential of many OBO positions is unlocked.

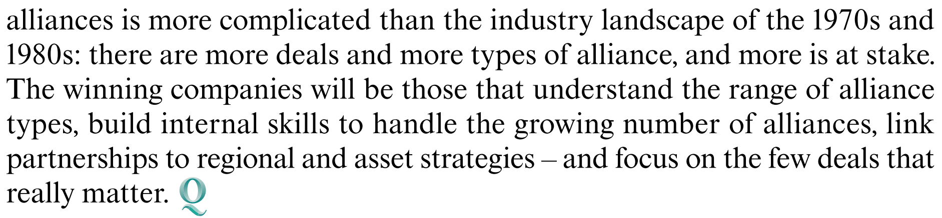
Minority stakes are beginning to be seen as a vehicle for learning and sharing technology and process knowhow

## The leadership challenge

Each type of alliance presents its own management challenges and demands a different level of involvement from senior managers. Big consolidation ventures and specialist alliances that can unlock value in mature asset areas should be the preserve of business unit leaders and presidents of large regions such as the North Sea or North America. So should the creation of advantaged networks of producers and suppliers in emerging areas such as the deep waters of the Gulf of Mexico. These are the types of partnership most likely to increase the value of a basin-wide position or to offer scope for preemptive strikes where the number of attractive partners is limited.

The responsibility for outsourcing and enhanced relationships with suppliers belongs to the managers of individual properties or assets further down the line. Finally, OBO upgrading can be dealt with by the head of asset sales and trading or by an executive in charge of OBO properties across a region.

Properly handled, alliances offer the major oil companies huge opportunities. They can release latent value from mature fields and act as the route to an advantaged position in frontier exploration zones. But the new era of oil



alliances is more complicated than the industry landscape of the 1970s and 1980s: there are more deals and more types of alliance, and more is at stake. The winning companies will be those that understand the range of alliance types, build internal skills to handle the growing number of alliances, link partnerships to regional and asset strategies – and focus on the few deals that really matter. Q