
# The Joint Venture (JV) Handbook

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## Executive Summary

**JVs were once largely the domain of international market entry, a necessary evil to comply with restrictions on foreign ownership**

Joint ventures (JVs) were once the domain of international market entry – a “necessary evil” to comply with restrictions on foreign ownership. In so doing, they also afforded access to local expertise and enabled companies to effectively “trial” a foreign market entry with a smaller commitment of resources – and with a natural exit option in the event that the trial failed.

However, the nature of JVs has changed. Previously in decline, we have seen a new surge in collaborative deals in many sectors and countries, with the primary impetus being to gain access to positional assets (e.g. brands, oil and gas reserves, advantaged production sites, etc.), organizational capabilities and technologies, to gain scale, or to syndicate risk and capital.

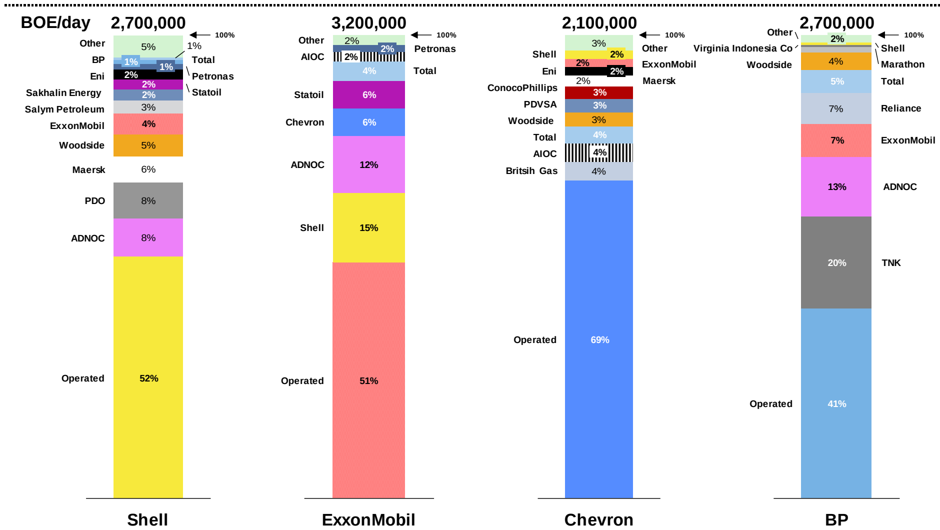
The nature of business opportunity has grown in complexity, uncertainty and now evolves at a greater pace, making it increasingly difficult to “go alone”. JVs have also long been popular for large capital projects. State owned enterprises (SOEs) often collaborate in their quest for knowledge transfer and capability building.

**We have seen a surge in collaborative deals to gain access to technologies, positional assets, organizational capabilities, and to syndicate both capital and risk**

IOCs and national oil companies (NOCs) collaborate with independents for access to attractive reserves. Oil and gas companies have tuned to JVs as part of a broader unconventionals (e.g. shale, oil sands, coal bed methane) strategy (see below).

### Portfolio Production by Operator among IOCs

*Illustration of JV Incidence in Oil & Gas Industry*




Source: IHS Consulting

**JV success is as much about creating an attractive opportunity as it is about finding an attractive opportunity**

JV success is as much about creating an attractive opportunity as it is about finding an attractive opportunity. While resource assessment and partner attractiveness are important, the opportunity for value creation is equally dependent on deal design, design of the operating model and implementation. We follow this journey with the following handbook; our perspectives are based on literature, empirical data, case studies and field experience.

## Who Uses Joint Ventures?

We have seen a surge in collaborative deals across many sectors and countries, with the primary impetus being to gain access to positional assets, technologies and organizational capabilities.[1] State owned enterprises (SOEs) often collaborate in their quest for knowledge transfer and capability building – for example, Saudi Aramco manages a large number of JVs with international oil companies, both domestically and overseas. Moreover, international oil companies (IOCs) and national oil companies (NOCs) have increasingly collaborated with independents for access to attractive reserves as well as to build capabilities (e.g. Unconventionals). JVs are also a popular means to syndicate or share both capital and risk in large capital projects.

### Access to Markets/Access to Capital

**TNK-BP is an example of access to markets in exchange for access to capital**

An oversimplification of course, but TNK-BP is an example of access to markets in exchange for access to capital. TNK-BP is a leading Russian oil company and among the top ten privately owned oil companies in the world in terms of crude production. It is vertically integrated (i.e. upstream and downstream) in Russia and the Ukraine. BP and the AAR consortium (Alfa Group, Access Industries and Renova Group) each own 50% of TNK-BP. AAR is privately owned, mainly by oligarchs. The shareholders of TNK-BP also own close to 50% of Slavneft, another vertically integrated Russian oil company. Although financially successful, TNK-BP has gone through political turmoil.

### A Syndication of Capital

**KazakhstanCaspiShelf (KCS) is an example of syndication of capital**

Again, an oversimplification, but KazakhstanCaspiShelf (KCS) is an example of a syndication of capital. KCS was established in 1993 to oversee oil and gas resource development in the Kazakhstan sector of the Caspian Sea. The Government of Kazakhstan selected seven IOC's (Eni, BG Group, Mobil, Shell, Total, BP and Statoil) to form the consortium. From 1993 to 1997, the consortium carried out a major seismic survey, identifying the Kashagan field.

In 1997, the consortium and the Government of Kazakhstan signed a production sharing agreement. In 1998, the Government of Kazakhstan sold its participation to Phillips Petroleum and INPEX. A new joint operating company was formed, Offshore Kazakhstan International Operating Company (OKIOC). In 2001, Eni subsidiary, Agip Caspian Sea, was designated sole operator. In 2002, BP and Statoil sold their shares, and in 2005, all consortium companies, except INPEX, transferred 50% of the newly acquired shares to the Kazakhstan National Oil company, KazMunayGas. In 2006, Agip commissioned its first production well.

In 2009, a new joint operator, the North Caspian Operating Company (NCOC) assumed the responsibilities of sole operator. Through Agip, agent for NCOC, Eni retained responsibility of the execution of the pilot program (phase 1). For phase 2, the co-managers for project execution are Shell for offshore development, Eni for onshore plant and ExxonMobil for drilling.

[1] Chris C., Clyde A., and del Maestro, A., Move to the Left for Success, Oilfield Technology.

### Economies of Scale

**Infineum is an example of economies of scale**

Infineum Holdings B.V. is a market leader in the manufacture of lubricant additives. The company operates as a JV between Exxon Mobil Corporation and Royal Dutch Shell plc. Infineum has achieved great success in the market through a shared strategic agenda of its two shareholders, diligent execution, and economies of scale.

In the 1990s, most majors had their own additives manufacturing business, creating special additives packages as a basis for fuels and lubricants production. Additive production became very unprofitable because of non-optimized production and tremendous bargaining power by powerful lubes buyers who conducted annual tendering for large discounts. The consolidation of the sector, in part through the Infineum JV, has countered the buying power and increased the utilization of manufacturing assets. Infineum's primary competitor, Lubrizol, was taken private by Berkshire Hathaway in 2011.

### A Syndication of Risk

**The BP-Rosneft alliance is an example of the syndication of risk**

The BP-Rosneft alliance is an example of the syndication of risk, for upstream development in the Arctic. In the share swap, BP acquired a 9.5% stake in Rosneft, while Rosneft took a 5% stake in BP. BP already had a 1.3% shareholding, bringing their total stake to 10.8%. The exploration agreement focused on the South Kara Sea and the formation of an Arctic technology centre to develop innovative technologies for safe exploitation of the Russian Arctic shelf. This equity swap is the first major example of NOC-IOC cross shareholdings. BP bought the right to book reserves and future production equivalent to its share in the venture. And with Rosneft 75% state owned, closer ties with the Russian government offered the potential for support in Russia. For Rosneft, the deal provided access to BP's technical expertise, and potential for international collaboration elsewhere. Downstream, the refining JV offered the potential to tap a significant European customer base (in 2010, Rosneft had already secured a 50% stake, from PdVSA, in BP's Ruhr Oel).

### Access to Organizational Capabilities & Positional Assets

**Eni-Quicksilver is an example of buying access to organizational capabilities and positional assets**

Eni established a JV with Quicksilver in order to gain access to organizational capabilities and positional assets (e.g. shale gas capability development and Barnett shale gas reserves). In May 2009, Quicksilver needed cash at a time when the capital markets were illiquid and gas prices were plummeting. They sold Eni a 27.5% share of leasehold interests in the Barnett shale for $280Mn in cash, which represented only 5% of Quicksilver's total proved reserves. While not explicitly part of deal, Quicksilver saw this as a step toward expanding their unconventional footprint beyond the Barnett.

Eni gained access to shale-gas development at an established, low-unit-cost player, in a field that is the most developed and understood of all U.S. unconventional gas plays. Eni was allowed to "second team" with Quick Silver in Fort Worth – attending meetings, observing their approach, sharing technologies, etc. in order to build organizational capabilities such as land and lease management, field planning, drilling approaches, well completion, process standardization, capital planning, procurement and oil field services management, decision-making & decision rights, and knowledge transfer).

### Other JV Trends

**NOCs are becoming more comfortable with 100% ownership; JVs are still sought for technology transfer and market access**

New technology is still an important lever for influence in setting up JVs – although many companies, including IOCs, are careful about technology transfer. Another key issue of focus has been securing the rights to market products from the JV. For example, Kuwaiti and Qatari companies continue to rely on Western partners for marketing and brand strength – IOC project management expertise is now a less important consideration. In both Asia and the Middle East, JVs are more common in chemicals than refining. But we expect to see NOCs rely less on IOCs and become more assertive partners. SABIC is more comfortable with 100% owned ventures, and while GE Plastics was a 100% acquisition, they will seek Western partners when entering some new business areas. SABIC are also increasingly more comfortable at marketing products and have built or acquired channels to market.

## Why Do Companies Joint Venture?

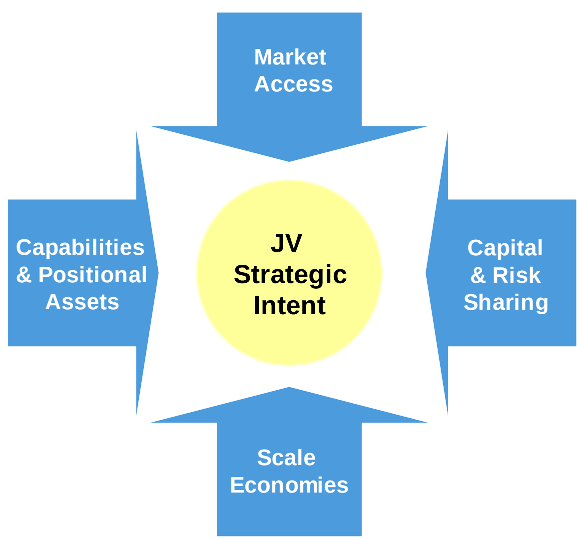
**Rationale for JVs includes market access, capital & risk sharing, economies of scale and capabilities & positional assets**

Earlier in this paper, we outlined who used JVs through a series of mini cases. The rationale highlighted in these cases is illustrated and clarified below.

### The Rationale for JVs

**Market Access:** The early cases of JVs were ones that provided access to international end markets for growth. This remains a popular (albeit declining) rationale for JVs, especially in consumer facing industries and markets with foreign ownership restrictions. The extent of globalism has now reduced the importance of this rationale.

**Joint Venture Strategic Intent**
*Rationale for Joint Ventures*




Source: IHS Consulting, Booz & Company

**Syndication of Capital & Risk:** The sharing, or syndication, of capital and/or risk is a second reason for a JV. This is especially true for capital-constrained private companies, for large-scale capital projects in the resource, power and infrastructure sectors, and for smaller companies in the relatively risky technology and biopharma sectors.

**Relevant scale does not simply mean increased size – coherence is equally significant in sustaining competitive advantage**

**Economies of Scale:** As we saw with the case of Infineum, JVs may confer the potentially significant advantages of relevant scale.[2] But this does not simply mean an increase in size; coherence – the complexity, range, and related nature – is an equally significant factor in sustaining a competitive advantage. Together, size and coherence create the relevant scale that helps companies gain the depth and expertise they need if they are to deploy their assets and capabilities effectively. This insight may seem simple, but represents a critical evolution beyond the conglomerate mindset of the past 40 years – a mindset that formerly focused on size alone, with insufficient emphasis on coherence.[3]

**Capabilities & Positional Assets:** The continuous growth of advantaged positional assets and organizational capabilities has been linked to sustained growth and financial success.[4] There are only three ways to develop the capabilities necessary for profitable growth:

- Build them organically, or
- Buy them through M&A, or
- Borrow them through virtual scale by using alliances and partnerships

**Successful business do not choose among building, buying and borrowing – they conduct all three activities, under one strategic agenda**

Successful business do not choose among building, buying and borrowing – they conduct all three activities, under one shared strategic agenda, with a coordinated road map so that the activities are mutually reinforcing. And so just as with M&A or organic initiatives, JVs can provide access to advantaged positional assets & organizational capabilities. In fact, in some industries, the widening of bid-ask spreads in the aftermath of the capital markets crises, has driven partnerships to become an increasingly popular entry approach.

### JV Value & Valuation

An extensive body of empirical research has demonstrated that JVs create value.[5] [6] Properly structured JVs can confer many of the same benefits as an acquisition, plus more flexibility. Literature has also documented significant wealth gains accompanying JV announcements, and the relationship between these gains and various characteristics. Event studies have documented the most significant sources of value – the highest gains are in horizontal combinations in concentrated industries; gains are related to characteristics such as firm size, degree of relatedness of the JV with the parent, and the effect of a parent's JV capabilities.

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[2] Pettit, Justin and Darner, Erik, The Myth of First Mover Advantage (January 23, 2012). Available at SSRN: http://ssrn.com/abstract=1989078 or http://dx.doi.org/10.2139/ssrn.1989078.
[3] Adolph, Gerald and Pettit, Justin, Merge Ahead: Mastering the Five Enduring Trends of Artful M&A McGraw Hill (2009).
[4] Ibid.
[5] Mohanram, Partha S. and Nanda, Ashish, When Do Joint Ventures Create Value? (February 1998). Available at SSRN: http://ssrn.com/abstract=7382 or http://dx.doi.org/10.2139/ssrn.7382
[6] Schut, Gertjan and Van Frederikslust, Ruud A.I., Shareholder Wealth Effects of Joint Venture Strategies: Theory and Evidence from The Netherlands (October 2001). EFA 2002 Berlin Meetings Discussion Paper. Available at SSRN: http://ssrn.com/abstract=302007 or http://dx.doi.org/10.2139/ssrn.302007.

For example, one analysis of 253 JV announcements found that companies earned positive abnormal returns around the announcement date, with three drivers of stock market reaction – strategic considerations, agency costs, and signaling:[7]

- The stock market reacted positively to JVs that involved a pooling of complementary resources, but
- JVs by companies with high levels of free cash flow were received negatively – those most susceptible to agency costs, and
- Small companies that entered JVs with larger companies earned significant positive abnormal returns, due to the signaling value

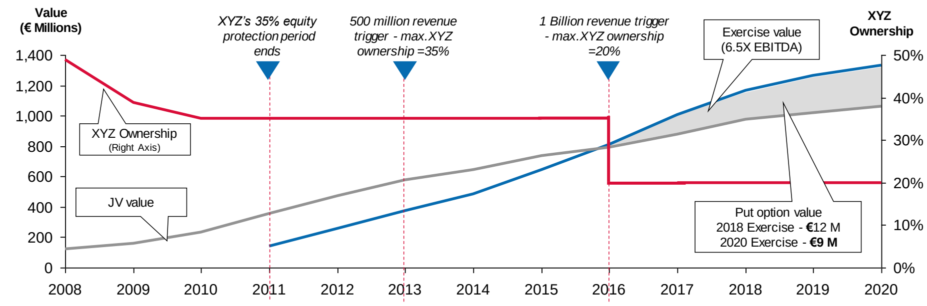
**JVs add value when two companies have complementary assets or capabilities, creating opportunity for synergies**

JVs typically add value when two companies have complementary assets, creating an opportunity for operational synergies as well as sharing of risk, technology and capital. On average, both parties gain – the more so with "marriages of equals" (unlike M&A). JVs often have more "option value" than M&A deals, by providing a firm with the flexibility to increase or decrease investment depending upon on how conditions develop:[8]

- Commitment may increase, as partners learn more,
- Commitment may be deferred, through step-up provisions, and
- Commitment may be reversed at low cost, by selling to the partner

**Valuation of a Joint Venture Agreement**

*Value of Options Dictates Optimal Path Forward*




Source: IHS Consulting, Booz & Company

The strategic value of a JV and the flexibility that stems from a less than full commitment are important drivers of value.[9] We illustrate the value of optionality above in the valuation of an option-laden JV agreement in the automotive industry, where "equity protection" dictated the optimal path.

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[7] Mohanram, Partha S. and Nanda, Ashish, When Do Joint Ventures Create Value? (February 1998). Available at SSRN: http://ssrn.com/abstract=7382 or http://dx.doi.org/10.2139/ssrn.7382.
[8] Pettit, Justin, Private Sector Capital Strategies for Public Service Infrastructure (October 20, 2011). Available at SSRN: http://ssrn.com/abstract=1944317 or http://dx.doi.org/10.2139/ssrn.1944317.
[9] Pape, Ulrich and Schmidt-Tank, Stephan H., Valuing Joint Ventures Using Real Options (September 2004). ESCP-EAP Working Paper No. 7. Available at SSRN: http://ssrn.com/abstract=695821 or http://dx.doi.org/10.2139/ssrn.695821.

## JV Costs & Challenges

**Corporate experience with JVs has been poor and so some executives refuse to consider them**

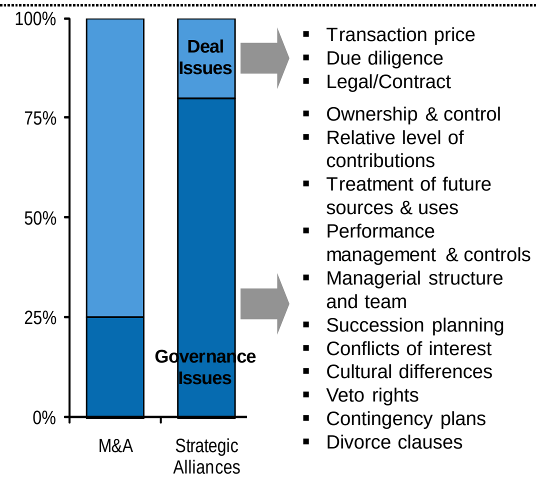
Despite their prevalence, corporate experience with JVs has tended to be poor – some executives even refuse to consider them. While JVs are common, their structure leads to operational difficulties that impair both value creation and value capture. The complexity of JVs – evidenced by the number of key issues – makes them more difficult to execute successfully. JVs are especially difficult along many operational dimensions, which can impair both value creation and value capture. Moreover, in some cases, the incumbents are capturing the lion's share of any value creation.[10]

The forces of globalization had been putting the use of JVs into decline.[11] Research on partial ownership of foreign affiliates by multinational companies has documented an overall decline in the use of JVs over the last 20 years.[12] Companies have responded to regulatory and tax changes by using wholly owned affiliates instead of JVs and expanding intra-firm trade and technology transfer. Whole ownership is most common when firms coordinate integrated production activities across different locations, transfer technology, and benefit from worldwide tax planning. As much as one to three-fifths of the decline in the use of JVs by multinational firms is due to the increased importance of intra-firm transactions.

**JVs are especially difficult along many operational dimensions**

**Comparison of M&A and JV Deals**

*Relative Effort to Close*




Source: IHS Consulting, Booz & Company

**Other problems stem from an M&A-style negotiation instead of a JV design process**

Other problems stem from an M&A-oriented *negotiation* approach instead of a JV *design process*. It is typically the same people tasked with JV execution as with M&A execution – but JVs involve a different set of issues (see above). These differences dictate a more balanced, less competitive approach that

[10] Pettit, Justin, Private Sector Capital Strategies for Public Service Infrastructure (October 20, 2011). Available at SSRN: http://ssrn.com/abstract=1944317 or http://dx.doi.org/10.2139/ssrn.1944317.

[11] Ibid.

[12] Desai, Mihir A., Foley, C. Fritz and Hines Jr., James R., The Costs of Shared Ownership: Evidence from International Joint Ventures (July 2002). Harvard NOM Working Paper No. 02-29; Harvard Business School Working Paper No. 03-017. Available at SSRN: http://ssrn.com/abstract=324123 or http://dx.doi.org/10.2139/ssrn.324123.

helps set the tone for a constructive relationship. Successful JVs are crafted with the aim of building trust and achieving a shared vision and understanding (versus a contract with explicit provisions for all possible contingencies), and strong incentives to seek business solutions instead of legal remedies. JVs also tend to have finite lives, and so we design successful structures with both a clear operating model and exit.[13]

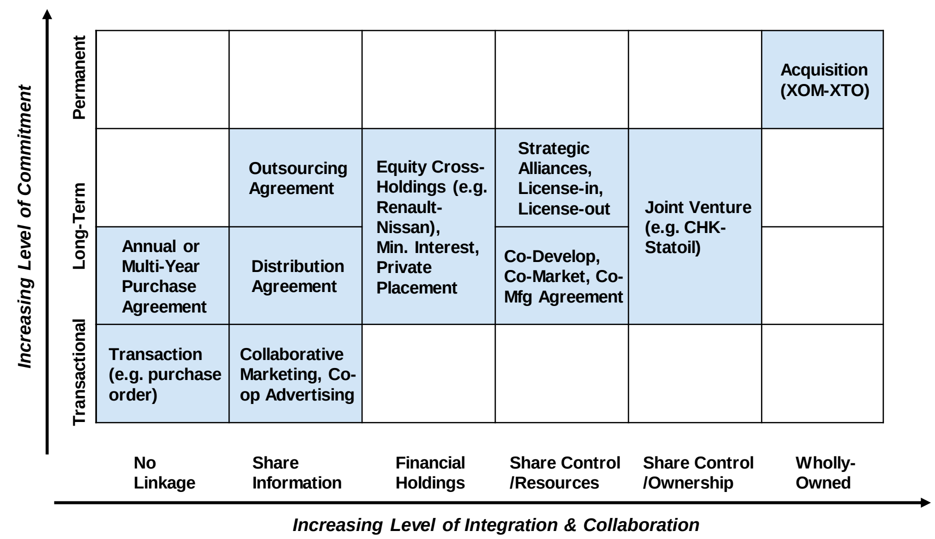
It is difficult to ensure a mutual alignment of interests – different owners and the operators can each become significantly misaligned with respect to strategy, objectives, requirements, financial capacity, risk tolerance, etc. The promotion and maintenance of trust and equity in the relationship is difficult due to the risks of value appropriation and dynamics. Furthermore, cultural differences, differences in risk appetite, and differences in investment horizon contribute to very challenging decision-making.

## When to Choose What Vehicle or Structure

There are many available variants in ownership structure including wholly owned Greenfield projects or acquisitions, JVs, minority interests, and public-private partnerships (see below).[14]

**Many variants with increasing levels of commitment, integration and collaboration**

**Deal Design Landscape**
*Illustration of Ownership Structure Alternatives*




Source: IHS Consulting, Booz & Company

However, deal design and ownership structure tend to be more of a means to an end, than a stated goal in the blueprint design for a growth strategy or major capital project.

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[13] Pettit, Justin, Private Sector Capital Strategies for Public Service Infrastructure (October 20, 2011). Available at SSRN: http://ssrn.com/abstract=1944317 or http://dx.doi.org/10.2139/ssrn.1944317.
[14] Ibid.

**Successful businesses do not choose among building, borrowing, or buying – they conduct all three activities under one strategic agenda**

### "Build", "Borrow", or "Buy"?

Successful businesses do not choose among building, borrowing, or buying – they conduct all three activities, under one strategic agenda. Just as with M&A or organic initiatives, JVs provide access to advantaged positional assets and organizational capabilities. In the chart below, we outline some of the pros and cons and key considerations in a comparison of the major investment archetypes – strategic alliance (e.g. borrow), equity JV (e.g. borrow), control acquisition (e.g. buy) and Greenfield subsidiary (e.g. build).

**Alternative Modes**

*Comparison of Deal Alternatives*

| | Strategic Alliance | Equity Joint Venture | Control Acquisition | Greenfield Subsidiary |
|---|---|---|---|---|
| **Structure** | • Contract between the parties | • Jointly owned separate legal entity | • Acquisition of control position | • Organic build of wholly-owned unit |
| **Market Entry** | • Fastest<br>• Sharing of resources, positional assets and organizational capabilities | • Faster<br>• Sharing of resources, positional assets and organizational capabilities | • Faster<br>• Acquisition of positional assets and/or organizational capabilities | • Slower<br>• Build positional assets and organizational capabilities |
| **Initial Outlay** | • Lower | • Varies | • Highest | • High/ Moderate |
| **Resources** | • Lower<br>• May contribute technology, people, capital or other assets | • Varies<br>• Either bring the deep pockets, positional assets, or the unique expertise | • Highest during integration<br>• Ongoing needs to be economically justified | • Higher<br>• Must hire expertise, source inputs; capital outlays for asset build |
| **Oper. Risk** | • Higher<br>• More difficult to control counterparty | • Higher<br>• More difficult to control counterparty | • Moderate<br>• Integration issue | • Lower<br>• Dealing with employees |
| **Term. Risk** | • Higher<br>• Difficult to transfer jointly developed assets out | • Higher<br>• Difficult to transfer jointly developed assets out<br>• Termination procedures expensive/ consuming | • None<br>• The greater the integration the more difficult to unwind or dispose | • None |
| **IP Risk** | • Higher<br>• Dealing with a potential competitor | • Higher<br>• Dealing with a potential competitor | • Low<br>• Dealing with employees | • Low<br>• Dealing with employees |
| **Net Present Value** | • Varies<br>• Generally lower returns but on a lower investment | • Varies<br>• Execution risk may impair value creation<br>• Depends on | • Varies<br>• Integration risk may impair value creation | • Potential for higher returns on a more modest outlay<br>• Depends on |

| | | | | |
|---|---|---|---|---|
| | | how value is shared | • Depends on price paid | importance of speed |
| **Market Presence** | • Lower | • Moderate | • Higher | • Higher |

Source: Baker & McKenzie, IHS Consulting

For example, one study of multinational company (MNC) entry strategies in emerging markets, found that they entered soon after the initiation of reforms, but limited their exposure to these markets, and the extent of technology transfer to the host country, until a much later date.[15]

**Companies use M&A and JVs to complement in-house R&D efforts**

In response to competitive pressures, companies increasingly use M&A and alliances to complement in-house R&D efforts. Differences in the technological capabilities between companies, determines the benefit from such deals. How partners organize alliance activities is also important. One study of 463 R&D alliances in the telecommunications equipment industry, found that alliances contributed more when technological diversity was moderate, rather than low or high. Some diversity is required to have something to gain from a partner; however, when too diverse, companies have difficulty leveraging each other. Structure did affect performance – through the incentives and ability to share information. For example, equity JVs, improve benefits from alliances with high levels of technological diversity.[16]

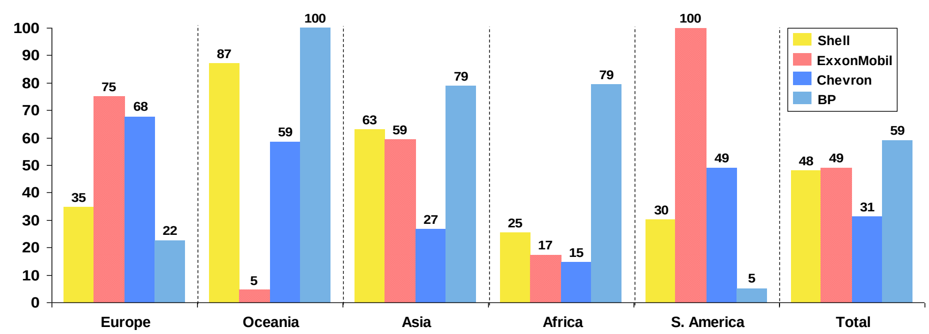
**Non-Operated Ventures (NOVs) or Operated By Others (OBO)**

Less common in most industries, passive minority interests, or non-operated ventures (NOVs) remain relatively common in the production of oil and gas.

**NOV usage tends to mirror regional strengths and weaknesses**

**Non-Operated Ventures**

*Incidence of NOV Use by Region in Major Oil Companies (2010)*




Source: IHS Consulting

The incidence of NOVs tends to mirror the regional strengths and weaknesses of the IOCs in different parts of the world – greater use in regions of the world where the company has less of an operational footprint, and less use in regions of the world where the company has more of an operational footprint.

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[15] Bhaumik, Sumon K., Determinants of Mncs' Mode of Entry into Emerging Markets: Some Evidence from India. Available at SSRN: http://ssrn.com/abstract=533722 or http://dx.doi.org/10.2139/ssrn.533722.

[16] Sampson, Rachelle C., R&D Alliances & Firm Performance: The Impact of Technological Diversity and Alliance Organization on Innovation (September 2003). Available at SSRN: http://ssrn.com/abstract=265999 or http://dx.doi.org/10.2139/ssrn.265999.

Recognizing the growing importance of NOV production and reserves in upstream O&G, super majors tend to have a separate NOV organization in some shape or form – it could be a separate Global NOV organization or a corporate NOV group to "coordinate and "share best practices". In some cases, once an asset goes into production it moves out of the NOV group.

**Public-Private Partnerships**

**PPPs tend to be more common in countries where governments suffer from heavy debt burden**

Public-Private Partnerships (PPPs) are a unique JV construct that involve a public institution alongside private enterprise, with equity contributed by both the private and public sectors. One important element in the case for PPP is the transfer of expertise from private partner to public entity.[17] PPPs have helped to connect capital, resources and expertise. The literature on private capital in public sector investments compares higher outlays on construction for the public sector with higher capital costs for the private sector.[18] Research shows that the private sector is able to build infrastructure 15-30 percent cheaper than the public sector due to greater capabilities, more efficient project management, shorter construction time and lower administrative expenses.[19] [20] However, in developed markets, the private sector cost of capital is 100-300 basis points higher than for the public sector.[21] Nevertheless, the savings in development outlays offset the higher financing cost.[22]

Private participation in PPP projects depends on expected marketability, the technology required, and the degree of 'impurity' of the goods or services. PPPs also tend to be more common in countries where governments suffer from heavy debt burdens, where aggregate demand and market size are large, and where there is previous case experience. Macroeconomic stability is also essential for PPPs, as is institutional quality – less corruption and effective rule of law is associated with more PPP projects.[23]

## Joint Ventures in Practice: The How

**Senior staffing is key to parent companies being able to exert influence over JVs**

Many JVs (except NOVs) are separate entities, not operated by any of the JV owners. During operations, the biggest sources of influence are through the commitment of senior executives, members of the operating committee or board. Seconded executives play senior management roles in the JV. For example, large IOCs (e.g., Exxon Mobil) seek to "impose" their plant designs, operating standards and procedures (often welcomed by SOEs). Some owners dedicate a small team of technical experts to monitor the JV in order to protect their own interests, such as monitoring the company's rights within the

[17] Pettit, Justin, Private Sector Capital Strategies for Public Service Infrastructure (October 20, 2011). Available at SSRN: http://ssrn.com/abstract=1944317 or http://dx.doi.org/10.2139/ssrn.1944317.
[18] See for example, Broadbent and Laughlin (2003), pp. 332-341; UK National Audit Office: www.nao.org.uk/guidance/focus/000154_pp5-6.pdf.
[19] See Wright (1987), pp. 143–216, and Viscusi et al. (2000), pp. 448-449.
[20] Wallance and Junk (1970, quotation from Viscusi et al., 2000, p. 448) even claim that public enterprises have investment outlays 40 percent higher than private ones.
[21] See American Chamber of Commerce in Poland (2002), p. 20.
[22] As discussed by Moszoro, Marian and Gasiorowski, Pawel, Optimal Capital Structure of Public-Private Partnerships (December 2007). IMF Working Papers, Vol. pp. 1-13, 2007. Available at SSRN: http://ssrn.com/abstract=1087179.
[23] Hammami, Mona, Ruhashyankiko, Jean-François and Yehoue, Etienne B. Baba, Determinants of Public-Private Partnerships in Infrastructure (April 2006). IMF Working Paper, Vol, pp. 1-39, 2006. Available at SSRN: http://ssrn.com/abstract=902765.

details of the JV agreement and doing feedstock and product analysis to support the company's position. However, the most important time to influence a non-operated JV is during the design of the venture.

**Treatment of Sources & Uses of Cashflow**

We describe a typical ownership structure for a JV between two in-market companies. The objective is to merge two region-specific business units of each parent company in order to achieve "virtual scale" in that market. There are two parent companies. The two respective business units (referred to as A and B) are focused on one (same) geography. Businesses A and B are each headquartered in different countries and have in-market companies in multiple countries. The deal is structured as a 50/50 partnership, with both parent companies as the only shareholders. Each partner contributes their relevant physical assets, with cash injected to achieve equal shares. Non-recourse debt is raised by the entity to reduce the requisite size of partner equity.[24]

**Identify the tangible and intangible contributions that each party will make**

**Capital Contributions:** One early step is to identify the contributions that each party will make to the venture – these may be both tangible and intangible and the parties will need to agree on their respective values. Contributions may be topped up with cash or other assets in order to achieve a target level of ownership (and thus, voting power) for each party. The following related issues are addressed at this stage in the design of the structure:[25]

- Foreign ownership restrictions
- Rules or restrictions on in-kind contributions
- Minimum capital requirements; capitalization requirements
- Initial and on-going valuation of contributions
- New issuance, share repurchases
- Capital expenditures
- Initial and on-going funding and financing
- Ownership versus share of profits versus voting power
- Preferred returns
- Distribution of profits and cash, treatment of dividends

**Three ownership archetypes: 50/50 equity ownership, majority equity interest and minority equity interest**

**Equity Participation:** Equity participation tends to be a function of what each party's role will be in the management and decision-making of the venture, and what they can contribute into the venture. There are three ownership archetypes: (1) a 50/50 equity ownership split between the prospective party and its JV counterpart – which will imply 50/50 management control; (2) owning a majority equity interest with a stronger management role; and (3) owning a minority equity interest with a weaker management role.

**Management Control:** Management of a JV will typically consist of a board of directors (or similar body) that makes extraordinary decisions on behalf of the JV, as well as a management committee to oversee day-to-day business.

[24] Now, some research suggests that larger companies should have a larger fraction of shares, as should companies whose goods are closer substitutes for the product of the JV, or companies who have a higher cost of transformation. Belleflamme, Paul and Bloch, Francis, Optimal Ownership Structures in Asymmetric Joint Ventures (April 2000). Queen Mary & Westfield College Economics Working Paper No. 411. Available at SSRN: http://ssrn.com/abstract=235306 or http://dx.doi.org/10.2139/ssrn.235306.

[25] Boling, Busey, Corrado et al., International Joint Venture Handbook, Baker & McKenzie (2008).

While the level of management control held by a JV party will typically correspond to its level of equity ownership, it is possible for JV parties to establish a management structure in whatever form is most beneficial, even if the allocation of control does not correspond with equity ownership.

**An economically viable JV is able to obtain non-recourse funding and financing to meet ongoing needs**

**Ongoing Needs:** If a JV is economically viable and sufficiently capitalized, it should be able to obtain non-recourse funding (e.g. working capital, seasonal debt) and financing (e.g. permanent debt) to meet ongoing operational needs. However, lower cost funding and financing may be available on a recourse basis (e.g. parent guarantee), or from the JV shareholders themselves. If the parents are to provide additional contributions, this is best determined at the outset. Alternatively, the parents may prefer merely to backstop the debt of the JV. As a practical matter, loan guarantees do consume debt capacity and expose the stronger parent to the credit risk of its joint counterparties.

**Profit Distribution:** In addition to planning for the financing needs of the JV, the parties will address plans for profit and cash re-investment and distribution. In additional to their investment horizon, risk profile, and outlook for the business, we can factor your legal, tax and accounting planning into these decisions.

**JV Contract Rights (How to Create Real Options)**

**Agreements that include explicit options are more likely to depart from 50-50 ownership because of the protection options afford to minorities**

JVs have received considerable research attention; however, only recently has this included analysis of the clauses found in shareholder agreements related to major capital events. JV contracts that include explicit options are more likely to depart from 50-50 ownership because the protection options afforded to minorities make parties more willing to contemplate minority positions.[26] Shareholder agreements may grant the following rights:

- The option to put a stake to partners, or to call partners' stakes, in part or in whole, at a strike price that is typically equal to 'fair' value. Put options maintain the shares of the payoff when the stakes must be altered in order to preclude ex post transfers from the company. Call options perform a similar role when the problem of ex post transfers is replaced by that of ex post investment.
- Tag-along rights (or co-sale agreements) allow the parties to demand of a trade buyer buying their partners' stakes, the same treatment as received by their partners. Tagalong rights deny the ability to increase share of the payoff by threatening to sell a stake to a buyer that would decrease the value of the company, or by precluding others in selling their stake to a buyer that will increase the value of the company.
- Drag-along rights allow the parties to force their partners to join them in selling their stakes to a trade buyer in the case of a trade sale. Drag-along rights deny the ability to increase share of the payoff by threatening to hold out on a value-increasing trade sale.
- Demand rights (or registration rights) allow the parties to force their partners to agree to an IPO. Demand rights deny the ability to extort value by threatening to veto a value-increasing IPO.

[26] Chemla, Gilles, Ljungqvist, Alexander and Habib, Michel A., An Analysis of Shareholder Agreements (July 2004). NYU, Ctr for Law and Business Research Paper No. 02-01; RICAFE Working Paper No. 006. Available at SSRN: http://ssrn.com/abstract=299420 or http://dx.doi.org/10.2139/ssrn.299420.

**Options serve to maintain the correct incentives through the distortion of major capital events**

- Piggyback rights allow the parties to opt into an IPO in proportion to their stakes. Piggyback rights deny the ability to increase share of the payoff by including a disproportionate fraction of shares in an IPO.
- Catch-up clauses maintain the parties' claims to part of the payoff from a trade sale or an IPO when the parties have ceded their stakes to their partners following the partners' exercise of a call option. Catch-up clauses deny the holders of a call option the ability to use the option to increase their share of the gains from a trade sale.

Each clause can be viewed as an option. These options serve to maintain incentives to make investments by maintaining shares of the payoff when the initial stakes cannot be adjusted to offset the distortion of major capital events (transfers from the company, to sell the company to a trade buyer, or to take the company public in an IPO). In the absence of these clauses, renegotiation may be required around major capital events.

**Case Study**

XYZ has a global organization for non-operated JVs, called the OBO (operated by others) organization. XYZ applies a rigorous and systemic management process to OBO assets – as in all parts of the company, which is renowned for process discipline. The size of OBO areas depends on their materiality to XYZ (e.g. U.S. onshore ~ 20 people, U.K. North Sea ~ 30 people, Qatar ~ couple hundred people). Co-location of the distinct operating and OBO organizations helps to foster a shared perspective.

A management process helps to clarify what XYZ wants to influence and how best to do it. The company develops shared Operated/OBO regional views to inform the strategic agenda (hence, co-location of the teams is beneficial). The separate Operations and OBO teams subsequently create specific plans for individual blocks/assets within their remit. The OBO Asset team "all get in a room" to define key focus areas for each non-operated asset.

**Clear priorities and metrics help the NOV organization focus on higher impact assets**

The team defines the actions for the highest impact items that XYZ believes the operator needs to manage (e.g. uptime, operating costs, development project timing or cost). Focus areas are prioritized by weighting against criteria (e.g., asset materiality, feasibility to influence, importance to XYZ business plan). Clear priorities and action plans ensure a coordinated message to the operator "up the chain of command". XYZ's OBO management process is underpinned by dedicated expertise and training.

An OBO Management System Coordinator is the senior authority for the management process and trains all OBO Asset Managers. The coordinator conducts "audits" of OBO Areas, assessing the techniques and effectiveness of OBO Area teams. The process is used to establish a "point of view" on critical asset objectives, backed by technical and economic analysis. And while OBOs are by definition not operated, XYZ will take steps to influence an operator. It could be to use the language of an operating agreement to "slow down" JV decisions, or to leverage government relations to influence the operator, or to "build technically aggressive and legally bullet-proof cases".

## Exit & Termination

**A disengagement procedure even if not followed exactly provides a useful context to negotiate a peaceful exit**

One unique and important feature of JVs and other collaborative agreements is some form of disengagement procedure. Even in cases where they are not followed exactly, they do provide a useful context for the parties to negotiate a peaceful exit. Where the JV is to have a fixed duration or a specific and limited purpose, termination issues are typically resolved during the design phase. However, where the JV is to be a long-term relationship, the parties may overlook or be reluctant to address termination in the early design stage. Nevertheless, the average alliance lasts between four and seven years, with few lasting more than 15 years.[27] Reasons for disengagement may include any of the following:

- Planned finite life,
- Change in control, change in leadership, or change in strategic agenda in a partner,
- Capital constraints, liquidity needs, etc.,
- Changes in nature of opportunity, price environment, capital needs, risk profile, competitive environment, regulatory context, etc., or
- Expectations not met

**Most common choices for exit are transfer of interests, sale of company, and dissolution**

The most common choices for an exit mechanism are the transfer of the JV interests, the sale of the entire company, and the dissolution of the company. There are numerous elements but the primary elements of a disengagement procedure are as follows:

- Planned horizon
- Mechanism for notice of intention to withdraw (e.g. prior to set-up of operations, 30 days; after set-up of operations, 6 months)
- Bid mechanisms (e.g. put/call features, right of first refusal/right of last look, veto rights, mechanism for valuation at exit)
- Rights of the exiting partner (e.g. withdraw resources, recover assets, access to jointly developed assets and intellectual property)
- Rights of the remaining partner (e.g. compensation for costs associated with the withdrawal, right to continue operations)

**Transfer of Interests.** The primary types of transfers are as follows: third party transfers, transfers to a JV party or to the JV vehicle itself, and withdrawal or exit. The following related issues are addressed at this stage in the design of the structure:[28]

- Enforceability under local law
- Disputes, failure to perform, material breach, etc.
- Insolvency, change in control
- Rights of first offer, first refusal, management consent, and other rights and consents
- Third party treatment
- Financing, liabilities and other capital structure considerations

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[27] Alison Maitland, Joint Ventures: Getting Out Without Getting Hurt, Financial Times, October 10, 2002.
[28] Boling, Busey, Corrado et al., International Joint Venture Handbook, Baker & McKenzie (2008).

**Sale or Dissolution.** If it is not possible for one JV party to purchase the other party's interests, then the next most common approach is to provide for a sale of the JV as a going concern. This may maximize shareholder value, but may risk a competitor taking over the JV.

**Other Considerations.** There are numerous potential termination provisions. For example, the parties might establish guidelines for their respective intellectual property, such as patents, trademarks, brands and associated royalties, including that developed within the JV. It may also be appropriate for the parties to plan for a period of non-competition after the termination of a JV.

**Other provisions may include IP transfer, transition services and a non-compete**

In addition, if one party exits while the JV continues to operate, the remaining party may wish to secure transition services from the exiting party to minimize business interruptions. If specific transition services are difficult to anticipate at the time of JV design, the parties may establish that a departing party will agree to provide mutually agreed transition services at the time of exit.

JV agreements generally include a mechanism for dispute resolution – the parties will prefer issue resolution by senior management personnel, as most disputes concern business issues, not legal issues. Arbitration awards can be easier to enforce than foreign court judgments and so the parties may wish to provide for arbitration in the event that leadership is unable to resolve disputes.

## Making it Work

### JV Best Practice

**Best practice is a process, rather than outcome, orientated approach**

Notwithstanding the previous several pages, we would urge JV architects to resist the urge for complete certainty in termination clauses – a "process-oriented" approach will typically result in a better working relationship, than an "outcome-oriented" approach. In our experience, best practice companies craft agreements on founding principles of design, rather than negotiating every conceivable outcome. Nevertheless, it will be very important to recognize when a JV has outlived its useful life before value is destroyed.

**Organizational design is just as important as the ownership structure**

Best practice cases also develop the operating model – not just ownership structure, but also organizational design, management processes, decision rights, information and oversight, plus incentives and other culture carriers early in the design process. Due to the challenges, best practice dictates broader emphasis on operating model design, versus just ownership structure. Other key principles to successful alliance management are as follows:

- Stakeholder alignment: secure internal alignment through formalized meetings with internal stakeholders, prior to all joint governance meetings with partners,
- Governance: establish a formal governance structure; establish initiatives to promote collaborative behaviors (e.g. productively diagnose problems; principles of engagement for interaction, etc.),
- Organizational design: document partner strengths/ differences to be leveraged; define roles and their requisite organization,
- Management processes: define key management processes around capital allocation, supply chain, planning & performance management, talent management, treasury; define soft KPIs around information

sharing, innovation, speed of decision making, number of issues escalated to JV oversight committee; develop hard KPIs around growth and profitability; hold meetings to explore potential challenges of working together; establish protocols for managing differences, and

- Decision rights: allocate decision rights for key management processes and sub processes; agree on approval steps and formal review committees to make decisions; determine what decisions are to be consensual, hierarchical, democratic, etc.

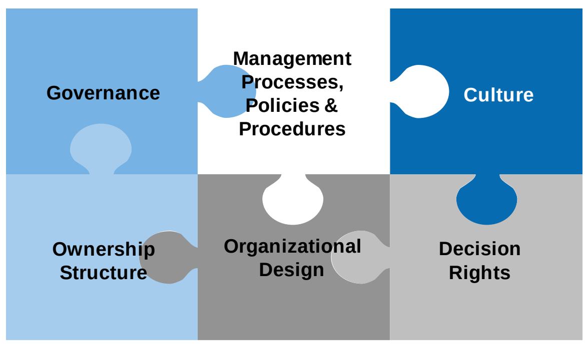
**Operating Model Design**

**Best practice is a broader emphasis on operating model versus simply ownership structure**

Due to the operational challenges of JVs, best practice dictates a broader emphasis on operating model design, versus ownership structure. A robust operating model, and its associated operational excellence, can be a source of sustainable competitive advantage.[29] An operating model is more than just ownership structure; it creates the key elements of the enterprise (see below) and includes ownership structure, governance (information & oversight), organization design, management processes, decision rights, and culture.

**JV Operating Model Design**

*JV Design Elements Go Beyond Deal Structure*




Source: IHS Consulting

**Ownership Structure:** What is the ownership structure for the new entity? What are the mechanisms for dissolving the entity or changing its capitalization? How will financial policy (e.g. financing, dividends, and buybacks) be set?

**Governance:** What information will be shared with the owners, at what frequency, and what will be the cadence and involvement of oversight? What are the authority levels for the new entity?

**Organization Design:** What are the key roles (e.g. organization structure and functional statements) within the new entity?

**Management Processes:** What are the key management processes for the new entity (e.g. capital expropriations, budgeting & planning, performance management, treasury, talent management)?

[29] Pettit, Justin and Darner, Erik, The Myth of First Mover Advantage (January 23, 2012). Available at SSRN: http://ssrn.com/abstract=1989078 or http://dx.doi.org/10.2139/ssrn.1989078.

**Decision Rights:** How are the decision rights allocated (e.g. responsibility, accountability, consulted, and informed) for the management processes?

**The operating model elements are highly interlinked**

**Culture:** What are the aspirations for company culture and social norms in the new entity? What will be the design principles for both formal and informal processes, including incentives and rewards, in the new entity? What will define success or winning in the new entity?

Each of these elements is interlinked. Ownership structure has implications for governance and organizational design. The requisite capabilities and roles drive the organizational structure's natural boundaries. Mapping the key management processes is necessary to allocate roles and decision rights (this also reduces the emphasis people will have on the "boxes and lines"). Roles and responsibilities are typically built around RACIs (i.e. Responsible, Accountable, Consulted, and Informed), as illustrated below.

**Allocate decision rights for each management process (i.e. responsible, accountable, consulted and informed)**

### Allocation of Decision Rights Illustration

*Decision Right Allocation for a Management Process*

| | Process Roles | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Process Steps** | Oversight Committee | Project Manager | Executive Sponsor | Change Management Lead | Systems Lead | Process Lead | HR Lead | Site Management | Front Line Management | Front Line Employee |
| Define Scope | | R | S | C | A | A | A | C | | |
| Define Strategy | | R | R | A | A | A | A | C | | |
| Approve Strategy | R | A | C | I | I | I | I | I | | |
| Define Requirements | | R | C | A | A | A | A | A | C | C |
| Approve Requirements | R | A | R | I | I | I | I | I | | |
| Design Solution | | R | I | C | C | C | C | | | |
| Approve Solution | R | A | A | I | I | I | I | I | | |
| Implement Process | | A | | A | | R | | A | I | I |
| Implement Technology | | A | | A | R | | | A | I | I |
| New Organization | | A | C | A | | | R | I | I | |
| Manage Change | | A | A | R | I | I | I | | | |

| Legend | | | | | | | |
|---|---|---|---|---|---|---|---|
| ( R ) | Responsible | ( A ) | Accountable | ( C ) | Consult | ( I ) | Inform |

Source: IHS Consulting

It's best to resist the temptation to design an organization around its people, but rather to envision a *future state based on requisite capabilities and roles*. Group the capabilities and roles to achieve an organization structure with natural boundaries *that minimize the need for management processes to overcome organizational silos*. Any transitions and timing ("How do we get there from here?") are resolved afterward.

The design process begins by defining a purpose or charter, for the company and then for each of its key components. Start top-down, one level at a time, and work in tandem with both management process mapping (same level) and the allocation of decision rights (board structure, number and responsibilities of board members, number of temporary board members during migration period, key management posts, etc.). Develop functional statements to clarify the role of each area. Define clear decision making rules and operating policies, e.g. voting procedures, conflict resolution, etc.

Decision rights can be easily distinguished by combining the role and process step to identify who is responsible or accountable. RACI charts (see above) are used to clarify roles and responsibilities for all management processes. Virtually any organization chart solution (e.g. reporting lines and areas of responsibility) can *instead* be achieved via the allocation of decision rights (RACI). But typically, the RACI attempts to simply reinforce the same groupings of capabilities and roles reflected by a good organizational design (e.g. individual responsibilities and coordination required in a process).

**RACI charts can define or redefine any organizational solution**

The RACI allocation takes into account both current and desired cultures. For example, a desire to encourage consensus building will bias toward significant consultation. An emphasis on speed or agility might instead opt for more informing, and few shared responsibilities. It's best to have only one owner (R), and to minimize the number of doers (A). Using I's, versus C's, increases the organization's ability to make decisions and get things done.

Now, the final element of the operating model (culture, social norms and informal processes) is influenced rather than explicitly designed, but there are several controllable factors that govern the outcome:

- How do we define success, or a win? How do we celebrate success?
- What constitutes a loss? What is our response to a loss?
- How do we measure risk? What is our tolerance for risk?
- What are the design principles for incentives (e.g. executive compensation, sales force compensation, etc.) and rewards?

**Effective Decision Making in JVs**

One of the most commonly cited problems, and hence one of the most important design outcomes, is effective decision making in JVs.

An approval process can actually undermine decision efficiency and effectiveness – an approval process entails one individual or entity (operator) presenting a recommendation to the decision makers (owner's committee). When a recommendation is being advocated, decision makers are forced into an accept/reject decision. Strong leadership is confused with strong advocacy – it is a win-lose proposition for the advocate and a rejection is at the very least a significant loss of face. An advocate has incentives to emphasize supporting evidence and de-emphasize contrary perspectives. An approval processes can therefore be inefficient because it leads to delay when the advocate is presented with challenges. But this is not the time for delay!

**Decision-making is guided by strategy, choices, fact-based analysis and commitment to action**

Effective decision making requires a choice among alternatives. Multi-owner decision making requires an engaged process of dialogue that builds alignment and forces action. Effective decision making is guided by four principles:

1. Strategy is defined by decisions – it is as much about what not to do, as it is about what to do. What decisions need to be made? What are the givens (i.e. not decidable)? What decisions can be deferred?
2. The basis for essential decisions includes choice (i.e. What is the comprehensive, mutually exclusive list of alternative archetypes?), criteria (i.e. What matters? How will trade-offs be measured?), and beliefs (i.e. What are the fundamental differences in perspectives?)

3. Decisions should be evidence based, and thus require fact-based analysis. Differences in input assumptions can be accommodated in the comparison of results. Transparency builds trust and credibility.
4. No alignment, no action, no value. A structured engagement of the key stakeholders will reduce adversarial positions and yield results.

**Best Practice in Non-Operated Ventures**

Despite being non-operated, many companies attempt to influence operators through technical work (e.g. interpreting and processing seismic data). They advance their point of view through advocacy backed by data and independent technical analysis. Seconding staff into operating companies is also becoming increasingly common, especially with senior staff. And as liability concerns grow, non-operators increasingly perform audits (e.g. safety, environmental compliance, financial) on their operators. Companies have also increased staffing for their most important or “difficult” NOV assets. We’ve seen several methods used to help prioritize scarce resources among NOVs:

**We have seen several methods to prioritize scarce resources**

1. Situational. Does this give us an important exposure? Is this an important lifecycle stage? Is there something to learn from the operator? Is this an important relationship of influence?
2. Ability to Influence. Feasibility to influence. Where can we add the most value (specific technical skills or relationships)?
3. Internal Metrics. Importance to the non-operator’s business plan (rather than the asset’s business plan), internal benchmarking.
4. External Benchmarking. Operator competence via benchmarking of operating and safety performance, financial capacity. Bottom quartile assets require additional scrutiny.

## How IHS Consulting Can Help

**We can help with your journey, from investment strategy and target screening to strategic due diligence & operating model design**

JV success is as much about creating an attractive opportunity as it is about finding an attractive opportunity. While resource assessment and partner attractiveness are important, the opportunity for value creation is equally dependent on the design and implementation of the opportunity. We can help with your journey, whether it is for investment strategy, target screening, strategic due diligence, integration, or operating model design.

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