



**Annual Supplier Transformation Forum**  
*Supplier Innovations!*

**Integrating Value Chains in  
Aerospace & Defense:**  
*Managing relationships and complexity  
up and down the value chain*

*Selected Survey Findings and Conclusions*

**October 7, 2008**

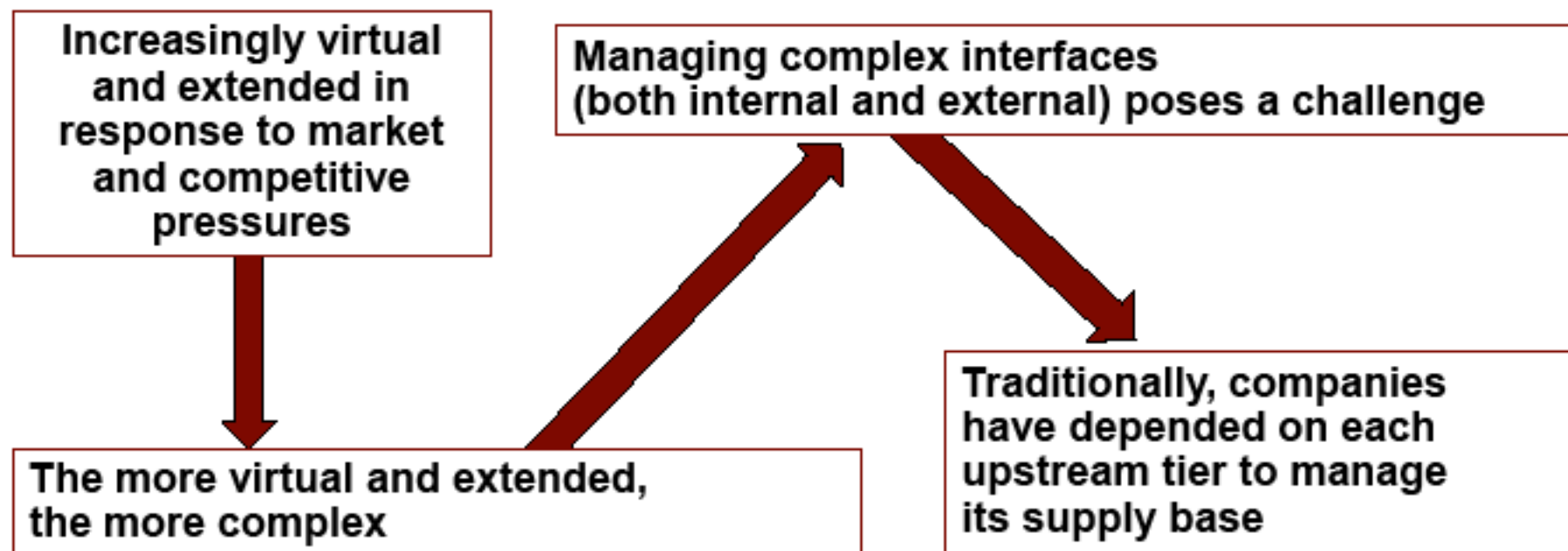
**AVIATION WEEK**  
& SPACE TECHNOLOGY

***ATKEARNEY***

## Agenda

- **Overview of Challenges**
- Selected Survey Results and Key Findings

## Extended A&D Value Chains have enabled growth, but are posing challenges



## Challenges—responding to market and competitive pressures

Increasingly virtual and extended in response to market and competitive pressures to ...



The more virtual and extended the more complex

Managing complex interfaces (both internal and external) poses a challenge

- Rapidly introduce new technologies
- Control costs, schedule and performance
- Focus on core competencies
- Move beyond traditional system lifecycle position
- Incorporate foreign content to assure foreign markets access

y, companies  
ded on each  
er to manage  
ase

## Challenges—complexity of ‘horizontal’ value chains

Increasingly virtual and extended in response to market and competitive pressures

Managing complexity (both internal and external)

**The more virtual and extended, the more complex**

- Numerous participants involved—from strategic to transactional “commodities”
- Relationships complex, dispersed and not understood enterprise-wide
- Visibility is increasingly challenging
- System interfaces become more complex and can’t be imposed by Primes
- Ability to manage interdependencies and risk is more difficult
- Risks are exacerbated as companies try to implement “lean”
- In defense sector, complexity is compounded by ITAR, imposing constraints on supplier eligibility and complicating collaboration

## Challenges—complexity of interfaces both internally and externally

Increasingly virtual and extended in response to market and competitive pressures

**Managing complex interfaces (both internal and external) poses a challenge**

The more the more

- A&D products--complex, difficult to manufacture, low volumes—often unattractive to COTS suppliers
- Lots of small suppliers—even at Tier 2 level
- Pressure to win on technology leads to dependence on unproven technologies — and uncertain supply base capability
- Supply chain involvement in NPD tends to lag severely
- Even when engaged, Supply Chain function often lacks necessary technical or supply market knowledge
- Upstream suppliers are often taken for granted, receive little supplier development and lack Value Chain integration sophistication
- Culminates in struggle to migrate cutting-edge technology-driven products from design to production

## Challenges—right balance of visibility and control with management complexity

Increasingly virtual and extended in response to market and competitive pressures

Managing complex interfaces (both internal and external) poses a challenge

The more virtual and extended, the more complex

Traditionally, companies have depended on each upstream tier to manage its supply base

- Tendency becomes stronger in attempt to manage complexity among many suppliers
- Many A&D companies don't manage immediate suppliers well—much less upstream suppliers
- Ceding management of upstream suppliers to immediate suppliers can carry big risk
- Struggling to find the optimal balance and supporting governance processes to reduce Value Chain complexity yet provide risk management and mitigation capabilities

## ***Anybody who figures this out will be unstoppable***

- Tighter **integration of product design/development** and the **supply chain** functions
- **Improved competency of the supply chain function**; i.e., engineering-savvy people who can understand supplier technology road maps while also understanding how the pieces must integrate into a highly functioning supply chain
- **Improved supply chain visibility** that enables monitoring and management across the numerous participants
- **Governance structures that are participative** among supply chain players **yet provide clear responsibilities, accountabilities and integrated performance metrics** that collectively drive system cost, schedule adherence and performance—must create individual and collective accountability for end product results even where the degree of commitment and “ownership” may vary widely among participants
- **Risk management and mitigation tools and capabilities** that **provide early alerts** even far upstream in the supply chain while avoiding whip-saw affects

## Agenda

- Overview of Challenges
- **Selected Survey Results and Key Findings**

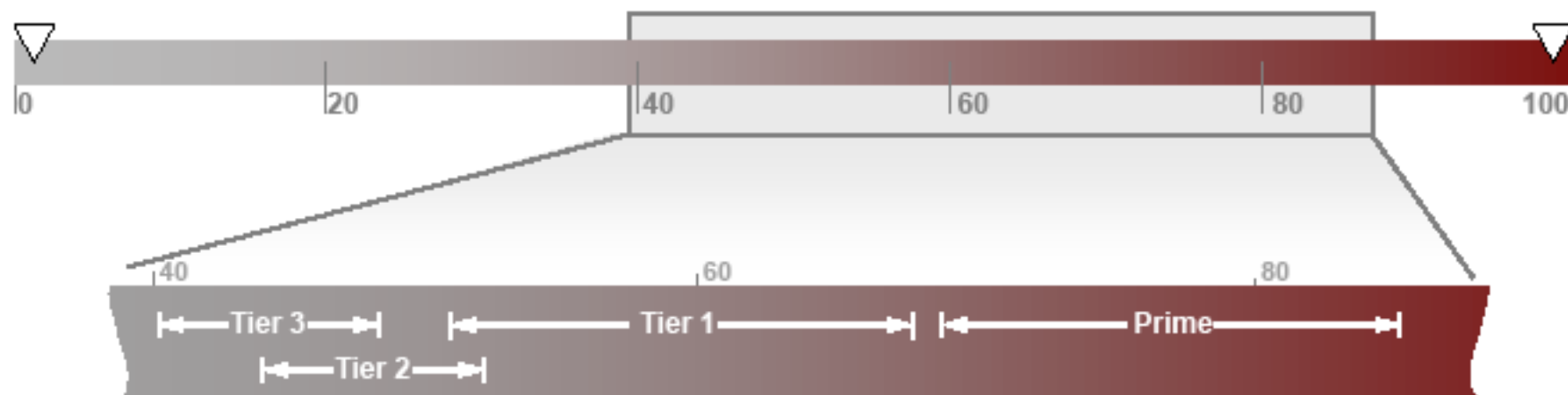
## The web-based survey comprised of 12 questions (and related drill downs) that addressed a broad range of partner relationship issues along the supply chain

- |  |   |                                   |   |
|--|---|-----------------------------------|---|
| <b>1</b> Innovation And Product Development    | What steps of the value chain do you partner in?                                  | <b>7</b> Identifying Capabilities | What partner capabilities are most important? In what steps?                    |
| <b>2</b> Partnership Relationships             | Ability to establish partnerships; competitive sourcing of supplier partners      | <b>8</b> Integrating Effectively  | Ability to integrate value chains; important factors to enable integration      |
| <b>3</b> Cross-enterprise Collaboration        | Ability to manage multiple value chains as a portfolio; organizational alignments | <b>9</b> Modifying Relationships  | Enabling flexibility from partners; replacing incumbents                        |
| <b>4</b> Balancing Commitments and Flexibility | Long term contracts; competitiveness of partners                                  | <b>10</b> Governance              | Importance and existence of a clear governance model; common industry practices |
| <b>5</b> Operational Complexity                | Importance of complexity; effect of value chain approach on complexity            | <b>11</b> Sustainability          | Sustainability from customers; importance in partnership decisions              |
| <b>6</b> Financial Risks and Rewards           | Structure of partnership contracts; goal development; relationship management     | <b>12</b> Demographics            | Follow-ups; classification of companies in prime, tier 1, tier 2, etc.          |

**Scoring reveals that none of the companies has achieved a fully integrated value chain. Prime Integrators appear to be the farthest along in value chain integration efforts**

Transactional  
Supplier-Customer

Fully Integrated  
Strategic Partner



**Characteristics: Transactional**

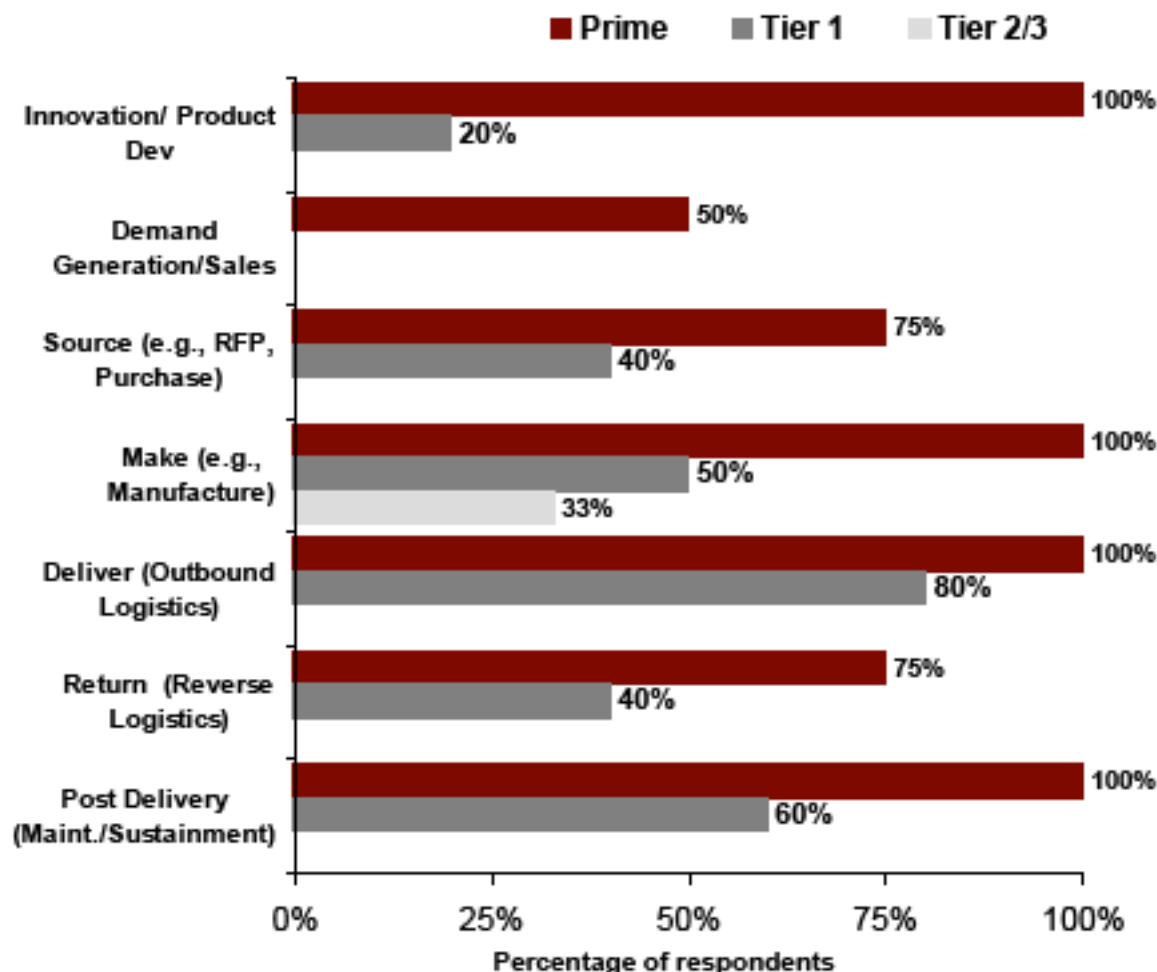
- Little or no collaboration, primarily buy-sell relationships
- Mainly focuses on costs and quality
- No formal contracts with partners
- Hierarchical relationships along the value chain

**Characteristics: Fully Integrated**

- High level of collaboration between partners
- Seeks strategic alignment with partners
- Organization aligned to the value chain approach
- Values and incentivizes flexibility
- Collaborative relationships along the value chain

# Companies partner substantially in each step of the value chain, but degree of partnering reduces as one moves upstream

Percentage of companies who currently have partners in each of the value chain steps

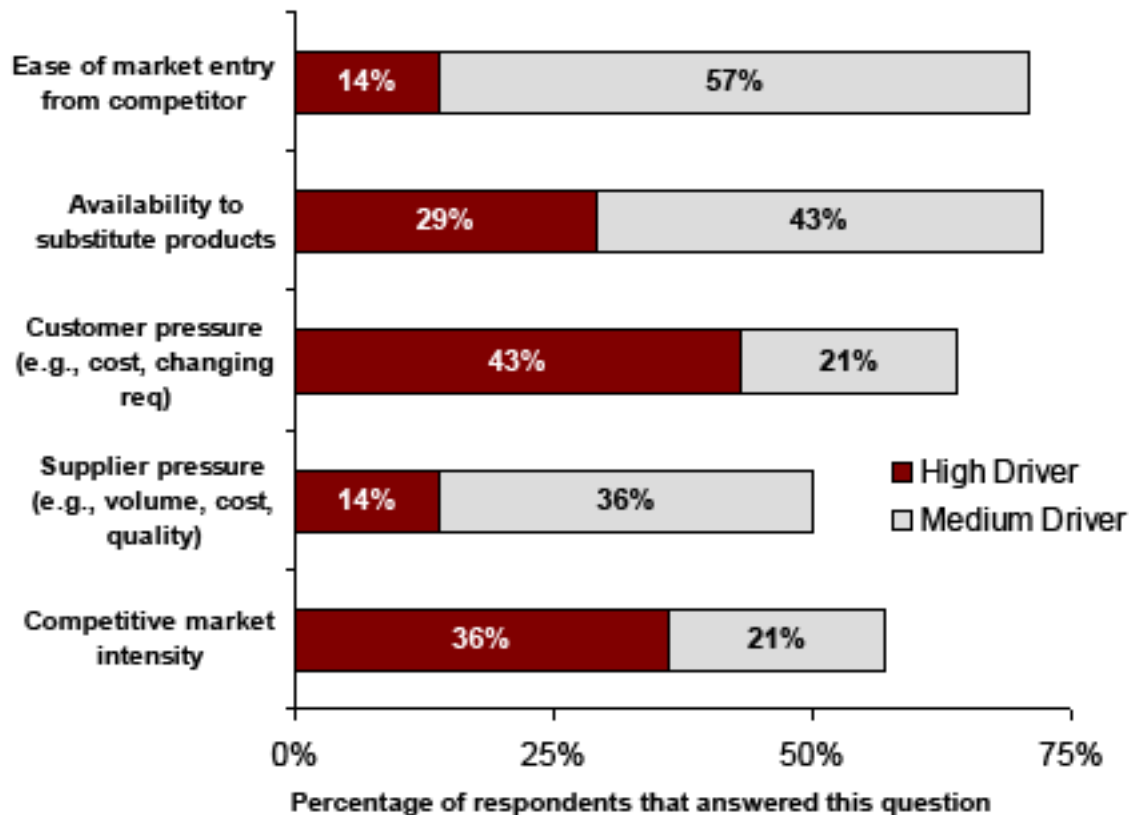


### Key Insights

- Prime integrators are seen as and expected to exercise partnership integration
- Tier 1 contractors partner to a lesser degree, probably indicating their management of upstream relationships only.
- Tier 2/3 respondents indicated no partnership, except in one step of the value chain

## In spite of the prevailing wisdom of looking beyond sole suppliers to achieve better value chain performance, companies do not engage in competitive sourcing unless directed by their customers

*To what extent is each of the following factors a driver that influences the decision on competitive sourcing vs. using a sole supplier?*

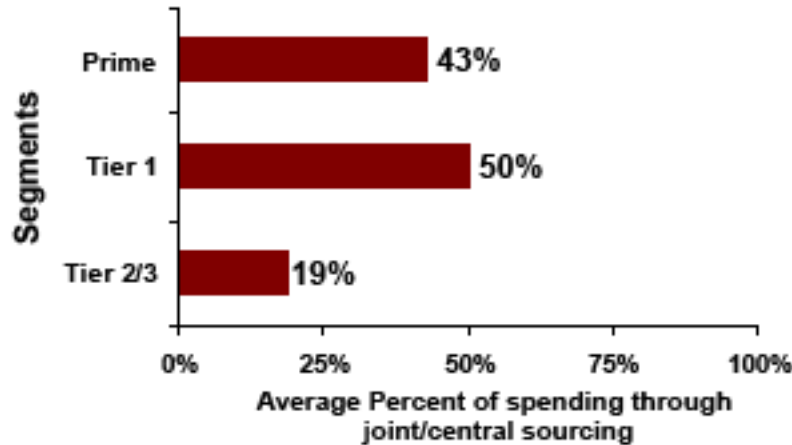
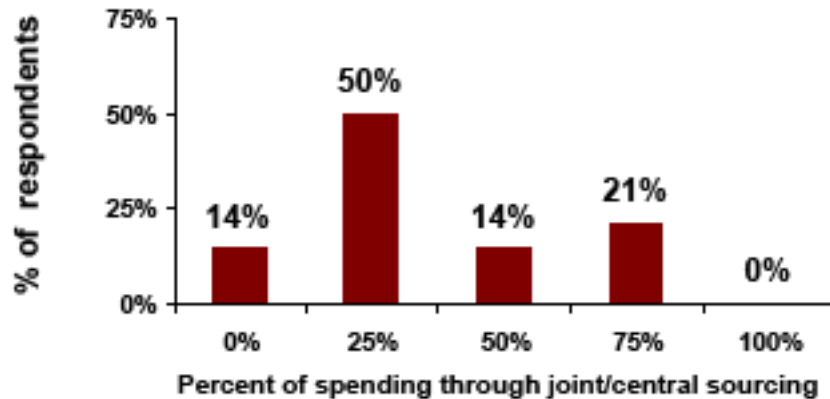


### Key Insights

- Although overall customer pressure ranks first, for Tier 1 suppliers, the most important factor is competitive market intensity
- Prime Integrators pass on price pressure (from customers) upstream, but do not proactively work on selecting partners with lowest costs?

# For a majority of companies surveyed, 50% or less spending flows through a central sourcing organization

*What is the percent of external spend by Strategic Business Units within your company to jointly or centrally source sub-systems, components, materials and services?*

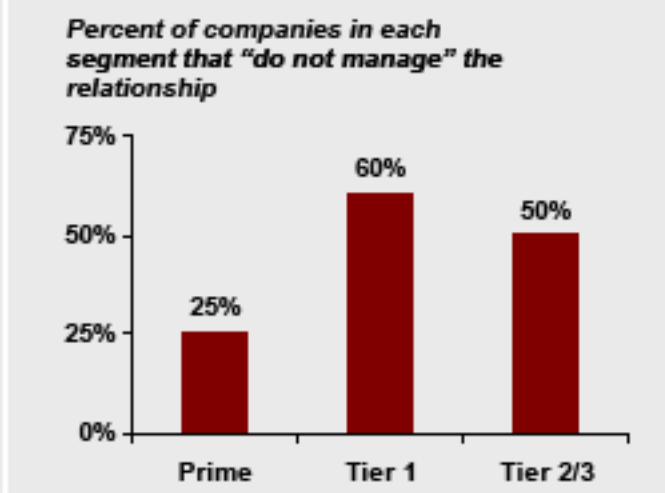
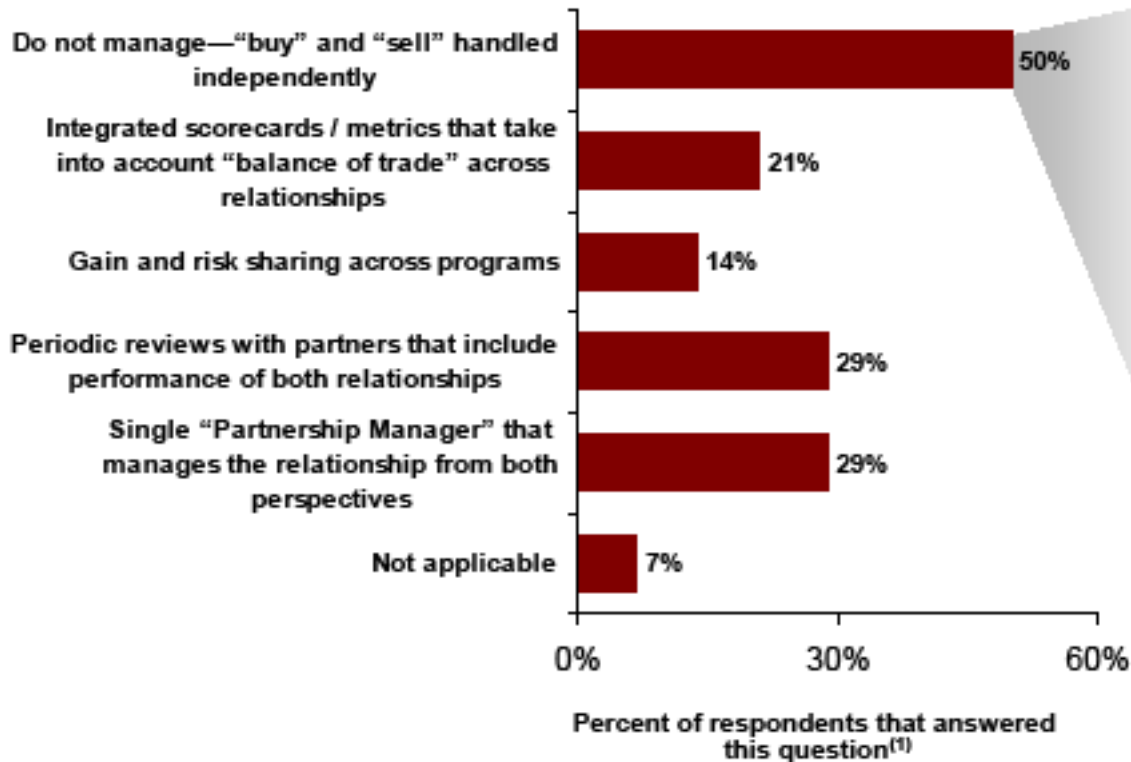


### Key Insights

- Percentage of spending through central sourcing is significantly lower in Tier 2/3 contractors, compared to Tier 1 and Prime integrators
- Centralizing spending across business units through a sourcing organization will yield cost benefits by increasing buyer power

# The majority of Primes manage “buy” and “sell” relationships with an enterprise perspective

How do you balance your role as both a supplier and customer to other companies?



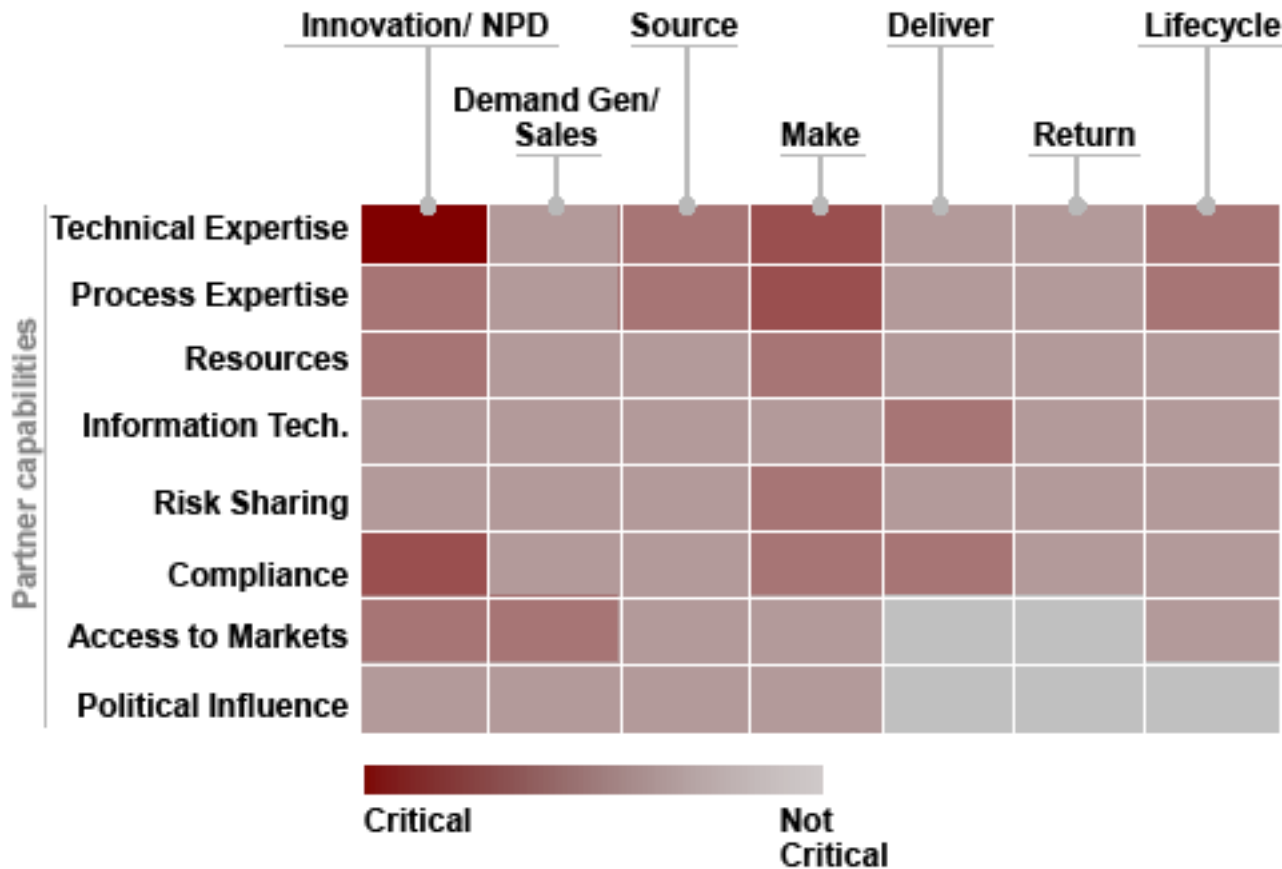
### Key Insights

- Relationship management becomes less sophisticated/less required as one moves upstream in the value chain
- There is no single preferred method used to manage partnership relationships

Notes: (1) Does not add to 100% because some companies use multiple ways to manage the relationship

# Companies consider Technical Expertise the most critical partner capability; Information Technology is not considered critical

What partner/supplier capabilities are most critical at specific steps along the value chain?



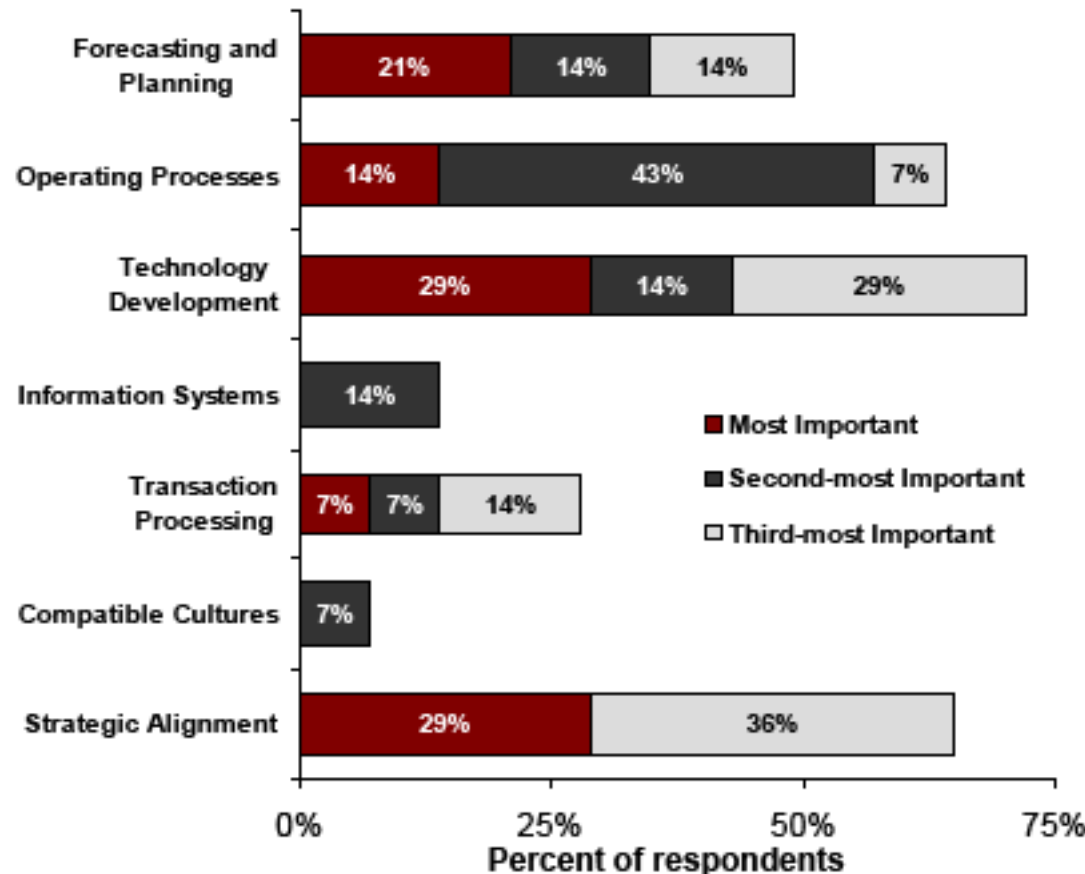
### Key Insights

- Most (85%+) companies indicated that the ability to identify partners that meet technology/process capability requirements is important
- However, most of the tested capabilities were relatively less important
- Why is information technology not considered critical?

Note: The color gradient plots the average response of all participants for each capability/value chain step pair

# Top partner integration requirements are technology development and strategic alignment

What are your top three partner/supplier integration requirements?

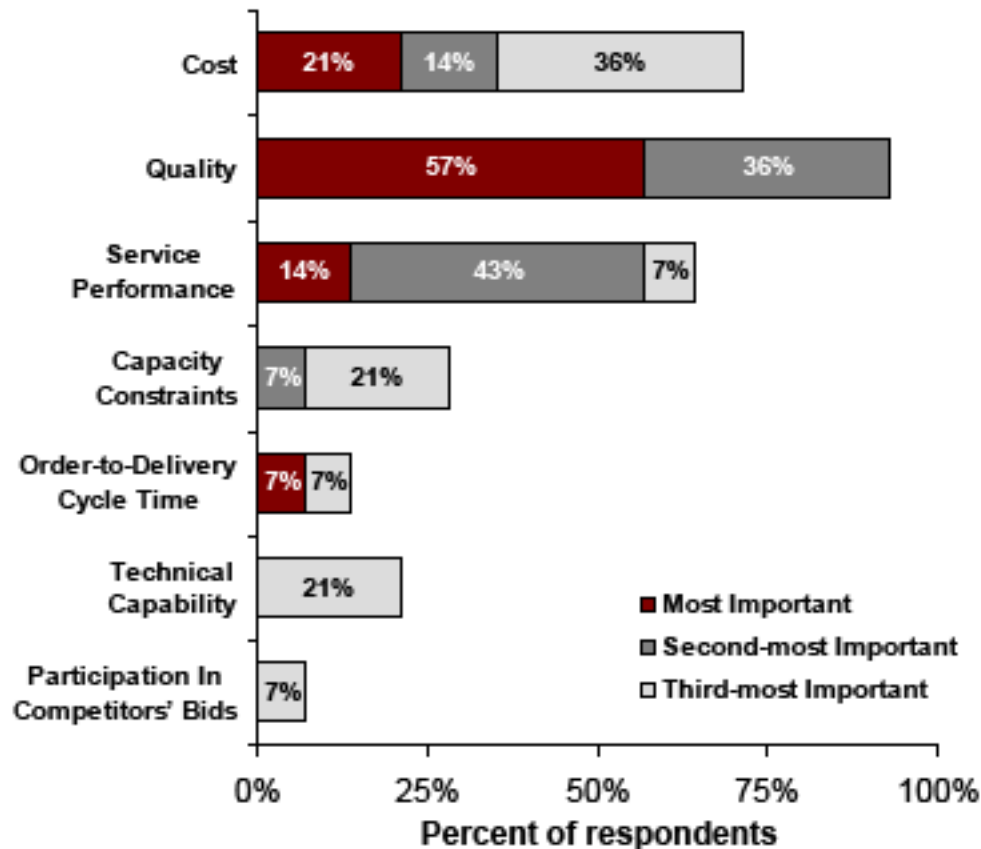


### Key Insights

- Operating processes rank second most important for a large number of respondents
- Data indicates that Technology Development and Strategic alignment are key “thresholds” that potential partners must overcome, after which other aspects become important
- Information systems integration is not considered important

# Quality, Cost and Service Performance are the top three reasons for replacing an incumbent partner

What are your top three drivers for replacing an incumbent?



### Key Insights

- Quality is the top reason for all four segments of survey respondents
- Following reasons were part of the survey, but not considered important:
  - Access to markets, customers or intellectual property
  - Maturity of value chain processes

For more information contact:

**Randy Garber**

**Vice President and Partner, A.T. Kearney**

**Randy.garber@atkearney.com**



