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***Collaborative Value Chains: The  
Next Competitive Advantage***  
***ISM Presentation***



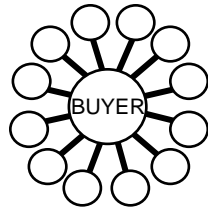
# Agenda

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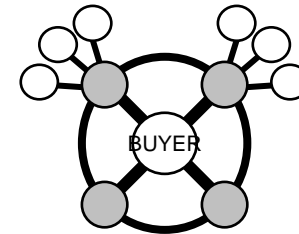
- **The Ideas behind Supply-Chain Collaboration?**
- **The levers for Supply-Chain Collaboration**
- **The Methodology for Creating Supply-Chain Collaboration**
- **The Organizational Transformation required to make Supply-Chain Collaboration work?**

# Building a collaborative supply chain may require a paradigm shift from past business practices

## Buyer Centric Supply Chain



## Collaborative Supply Chain



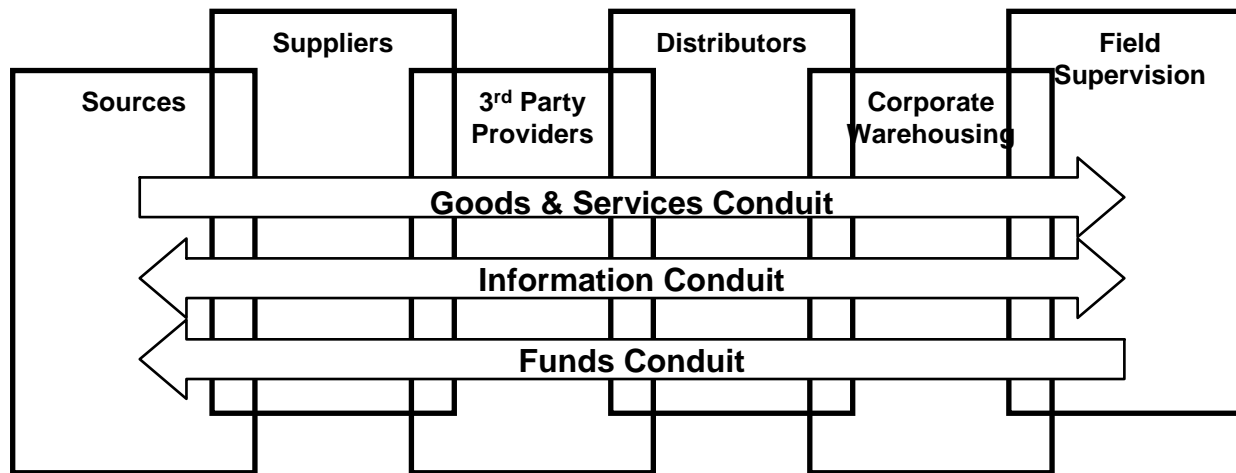
Paradigm Shift

- Many direct suppliers with narrow value offerings
- Value is primarily added by Buyer
- Small supplier development efforts with many direct suppliers
- Cross supplier collaboration or strategies are limited or non-existent

- Few direct suppliers with broad value offerings
- Value is now added by both Buyer and suppliers
- Large supplier development efforts with few direct suppliers
- Cross supplier collaboration or strategies are used to create the optimal supply chain structure

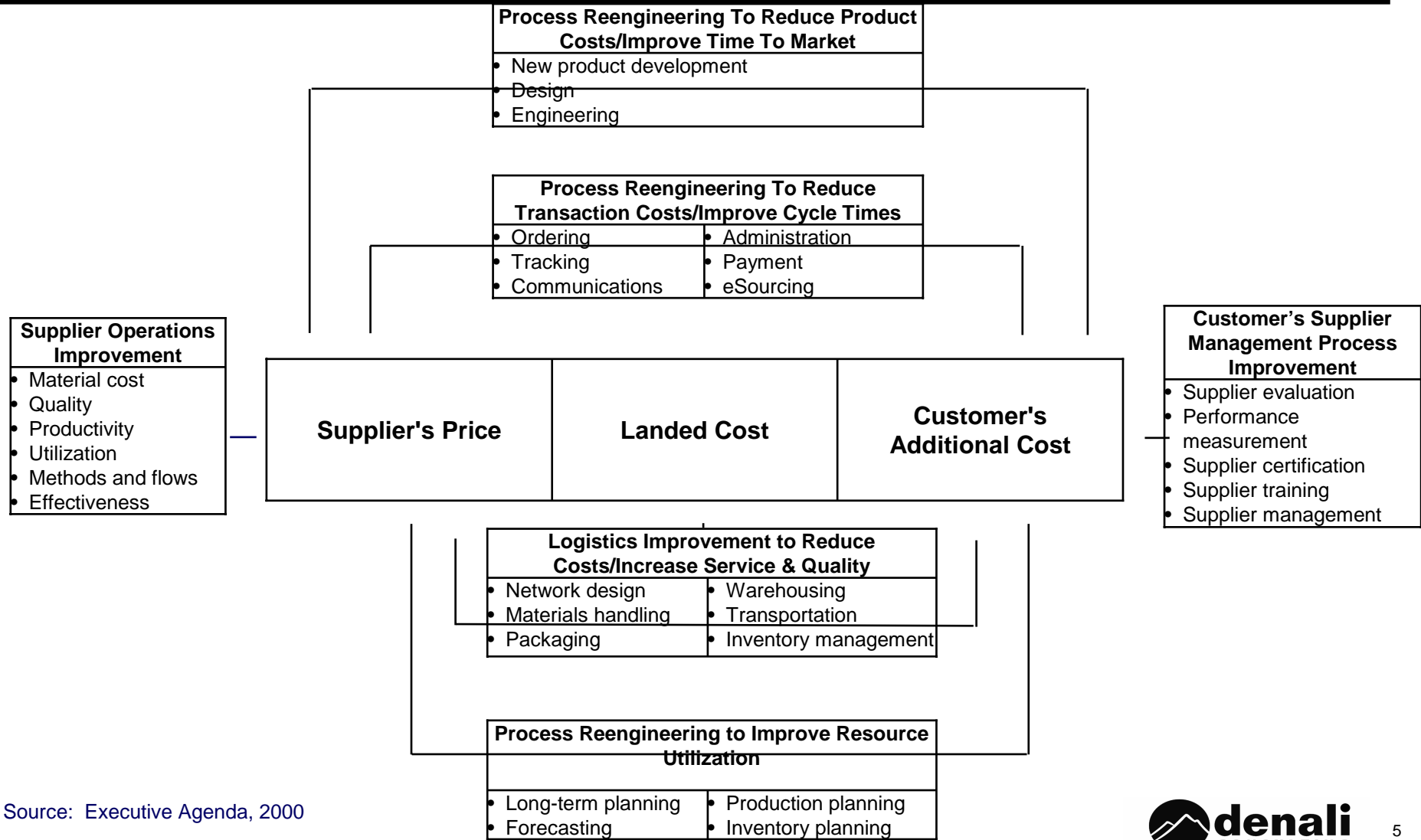
# The ideas behind Collaboration

- The Supply Chain is the connected series of organizations, resources, and activities involved in the creation and delivery of value to end customers.
- Collaboration is the formal process of coordinating the planning and execution of labor and materials flows among supply chain participants



- The holistic intent of collaboration is to provide the highest levels of reliability, safety and labor efficiency while making most effective use of the competencies of all organizations in the supply chain.

# Collaboration looks for opportunities across the combined value chain



Source: Executive Agenda, 2000

# Collaboration leaders are usually created because of the characteristics of their industry

Industry Characteristics		Industry Sectors					
		<i>Asset Intensive Services</i>	<i>Project Industry</i>	<i>Mass Production</i>	<i>Non-Durable Consumer Products</i>	<i>Raw Material Processing</i>	<i>Retail</i>
<i>Asset Intensity</i>	High level of investments required	✓	✓	✓	✓	✓	
<i>Market Driven</i>	Frequent and major price fluctuations on materials & services				✓	✓	✓
<i>Highly Supply Chain Dependent</i>	High Purchase \$ as a % of Revenue \$		✓	✓	✓		✓
<i>Short Product Life</i>	Excess products unable to be sold after end of demand			✓			✓
<i>Project Driven</i>	One time product/service for clients		✓				
<i>Mass Production</i>	High volume/repetitive production			✓	✓	✓	
<i>Infrastructure Maintenance Driven</i>	Significant portion of revenue is from infrastructure maintenance	✓	✓				
<i>Global Markets</i>	Local activities required to penetrate emerging market		✓	✓	✓	✓	✓
<i>Service Driven</i>	Labor-intensive real time fulfillment of customer needs	✓					✓

# Creating a collaborative supply chain will require a significant effort in order to offset the existing paradigms and balance of market power

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- Ultimate Spend Leveraging Across Strategic Commodities
  - Contracts will have to be structured very creatively using volume forecasting, demand aggregation, ongoing joint process improvement, cost modeling, etc in order to obtain maximum leveraging ability.
- Relationship Strategies Developed by Commodity
  - Past relationships will have to be carefully evaluated and strategies for new strategic alliances should be developed with only a select few partners that are willing to work closely in an intimate relationship like never before.
- Intimate Relationship with Strategic Alliance Partner(s)
  - Buyer and strategic alliance partners must be willing to completely open up books and share all information and ideas in order for effective collaborative relationships to develop. This will likely require a paradigm shift from all.

# Agenda

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# Opportunities to build a more collaborative supply chain may be found by re-evaluating four *value levers*

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## Value Levers

Product &  
Service  
Designs

- Which products and/or services within the value chain may be improved through design collaboration?

Value Chain  
Structures

- How can the value chain be structured so that relationships are more collaborative and material, info and money flow is streamlined?

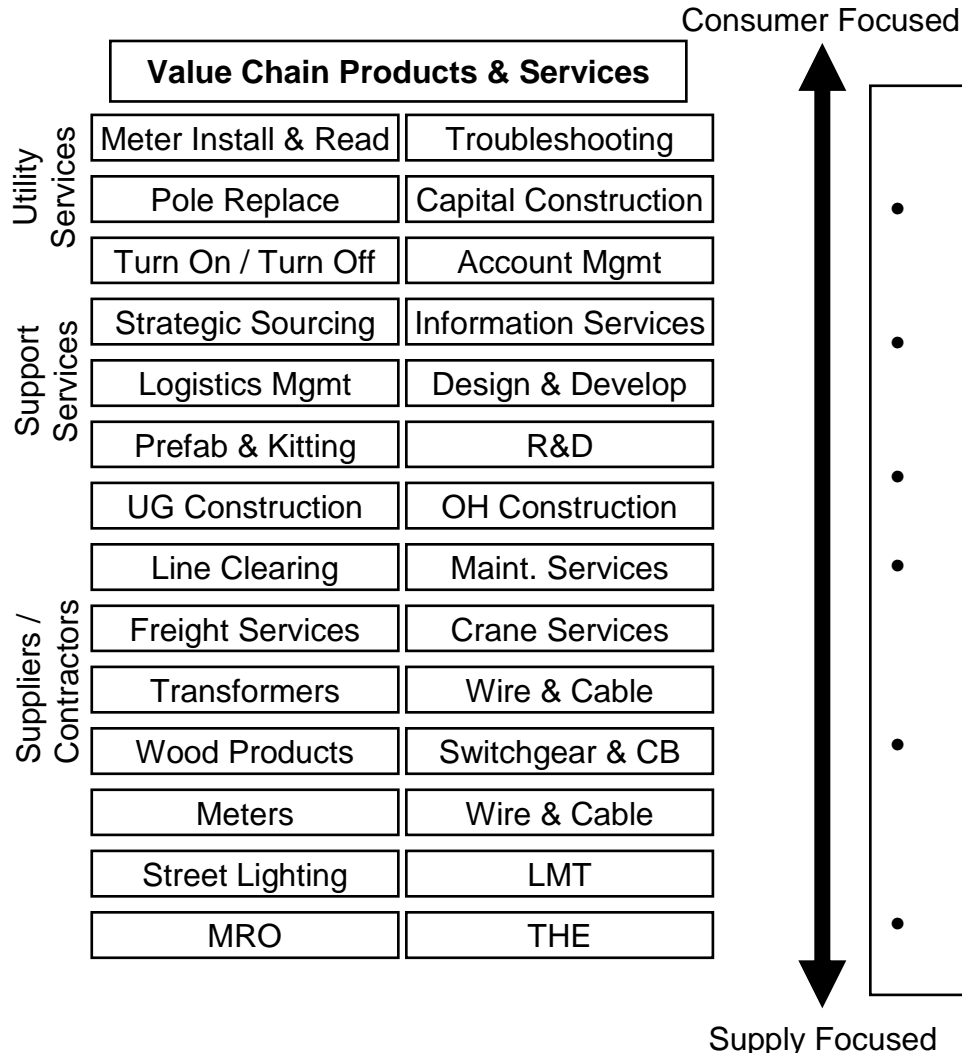
Value Chain  
Processes

- Which processes within the value chain may be extended across participants to add further value?

Value Chain  
Systems

- How can information technology applications enhance collaboration and increase the value delivered by the supply chain?

# Collaboration can be “Product or Service Design” focused

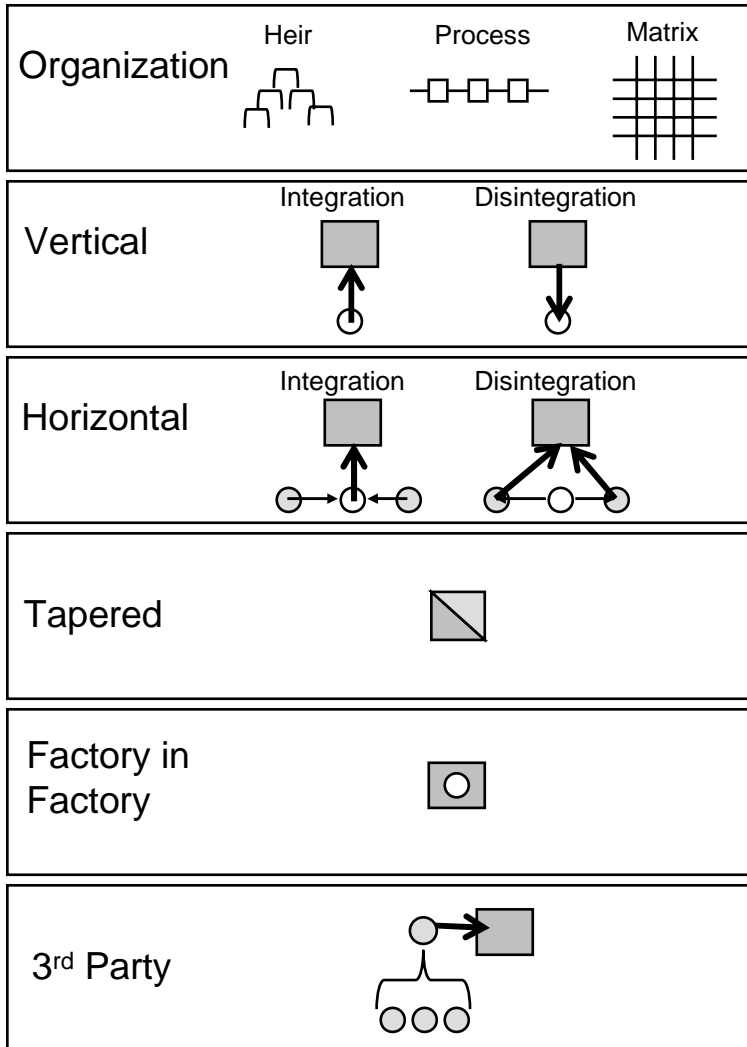


## Utility Industry Examples

- Duke Egr. provides **OH Construction** and **Design & Development** of transmission projects for BPA.
- Priester provides TXU with **Prefab & Kitting** of **LMT** and other components such as **Transformers, Switchgear & CB**
- Asplundh provides **UG** and **OH Construction** for LA Power.
- IMServ provides AMR **Meters** and performs the **Meter Install & Read** for Salt Lake City Public Utility and Atlanta Gas & Light respectively.
- Atco Gas, Enmax Corp., Shaw Cable and Telus Communications use joint trench construction for **Gas, Phone, Cable & Electric**.
- BP Suppliers collaborate to jointly **Design & Develop** oil rig platforms

# Collaborative opportunities can be “Structure” focused

## Value Chain Structural Strategies



Internal Focused



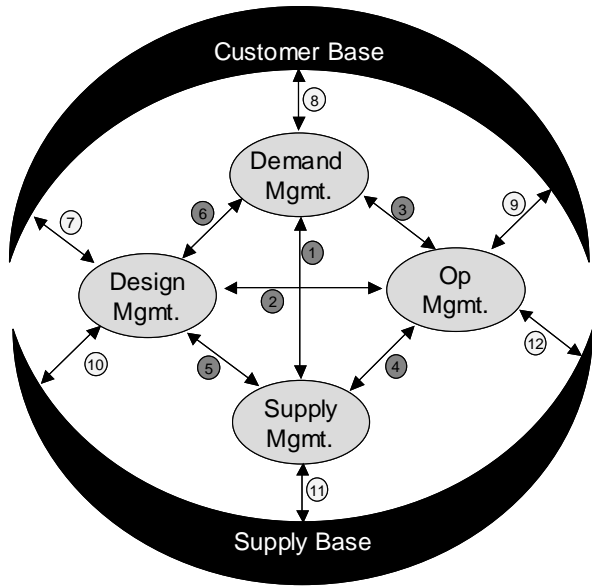
Supply Focused

## Industry Examples

- Deere is big into **Process** alignment of their organization and **matrix** structures
- Chrysler is big in **vertical disintegration**; **Horizontal Integration**, and assigning **3<sup>rd</sup> Party** ownership of systems of modules.
- Coke and Pepsi are big in the **tapered** approach and collaborates with suppliers on improvement opportunities and ensures suppliers do not take advantage of them
- Volkswagen and Skoda use the **factory in factory approach** to allow suppliers to locate on site and integrate with operations.
- Fiberglass pole suppliers can setup **factory in factory** manufacturing for just in time.
- EMC has four **3<sup>rd</sup> Party** contract manufacturers who are very inventory lean and then uses selected full service distributors to hold, kit and deliver supplies at the right time, place and location for the contract manufacturers

# Collaborative opportunities can be “Process” focused

- # Six Internal Relationships Exist
- # Six External Relationships Exist



Collaborative Relationship Model

Consumer Focused



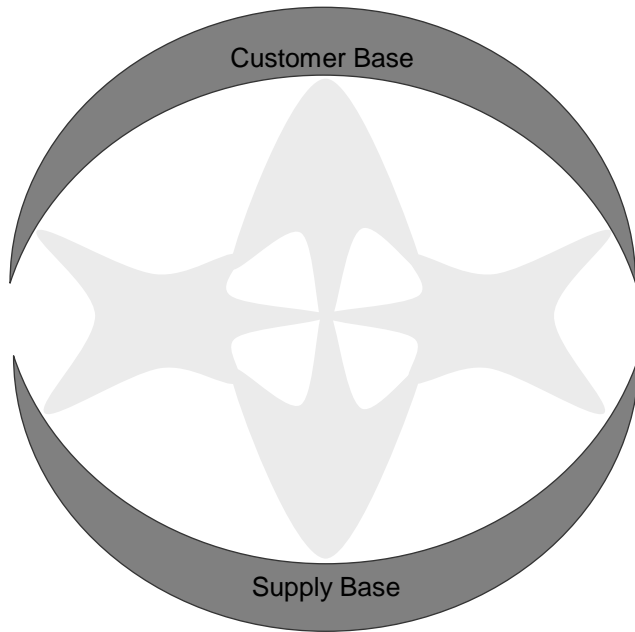
Supply Focused

## Industry Examples

- **Design Mgmt / Supply Base** allow Early Supplier Involvement and conduct Value Engineering workshops with suppliers (e.g., Toyota, Deere)
- **Op Mgmt / Supply Mgmt** conduct Joint Project Planning activities for capital projects (e.g., Southern)
- **Supply Mgmt / Supply Base** conduct joint process improvement using Supplier Development (e.g., Honda, Deere, Big 3)
- **Supply Mgmt / Supply Base** have Vendor Managed Inventory, Consignments & auto replenishment (Paccar)
- **Supply Mgmt / Op Mgmt / Design Mgmt / Supply Base** worked as an equal team to design, cost and construct an oil platform (e.g., BP and the North Sea Oil Field Construction Project)

# Collaborative opportunities can be “System” focused

Consumer Focused



Collaborative Relationship Model

## Industry Examples

- **CPFR (Collaborative Planning, Forecasting & Replenishment)** Used to coordinate the supply and distribution of coal to utilities (BNSF, Coal Mines & Utilities)
- **ERP (Enterprise Resource Planning)** used to collaborate supply, demand & operations (e.g., Caribbean Cruise Lines).
- **Interactive Collaborative Environments** used to simultaneously access and create designs & specifications with contractors (e.g., McDonnell Douglas & Sandi National Lab)
- **Intranet** Used to view order, catalog and inventory info (e.g., Howard)
- **eProcurement** Used with partner suppliers to automate procurement (e.g., Idaho Power)
- **eSourcing** – Used to automate negotiations for categories such as transformers (Baltimore Gas & Electric)

Supply Focused

# Example: Clients use the framework to identify levers and prioritize projects

<i>Project Focus</i>	<i>Relationships</i>	<i>Value Levers</i>	<i>Benefit</i>	<i>Ease</i>	<i>Time</i>
<ul style="list-style-type: none"> <li>SKU Reduction &amp; Kits</li> <li>Spec Standardization</li> <li>Value Engineering Workshops</li> </ul>		<ul style="list-style-type: none"> <li>Product &amp; Service Designs</li> <li>Value Chain Structures</li> <li>Value Chain Processes</li> <li>Value Chain Systems</li> </ul>	5	1	1
<ul style="list-style-type: none"> <li>Outsourcing of value added activities related to pole assemblies or logistics</li> </ul>		<ul style="list-style-type: none"> <li>Product &amp; Service Designs</li> <li>Value Chain Structures</li> <li>Value Chain Processes</li> <li>Value Chain Systems</li> </ul>	5	1	1
<ul style="list-style-type: none"> <li>Integrated Demand / Supply Planning</li> <li>Joint Service Level Agreements</li> </ul>		<ul style="list-style-type: none"> <li>Product &amp; Service Designs</li> <li>Value Chain Structures</li> <li>Value Chain Processes</li> <li>Value Chain Systems</li> </ul>	3	5	3
<ul style="list-style-type: none"> <li>Joint process improvement with strategic suppliers to improve business processes via Supplier Development</li> </ul>		<ul style="list-style-type: none"> <li>Product &amp; Service Designs</li> <li>Value Chain Structures</li> <li>Value Chain Processes</li> <li>Value Chain Systems</li> </ul>	3	3	3

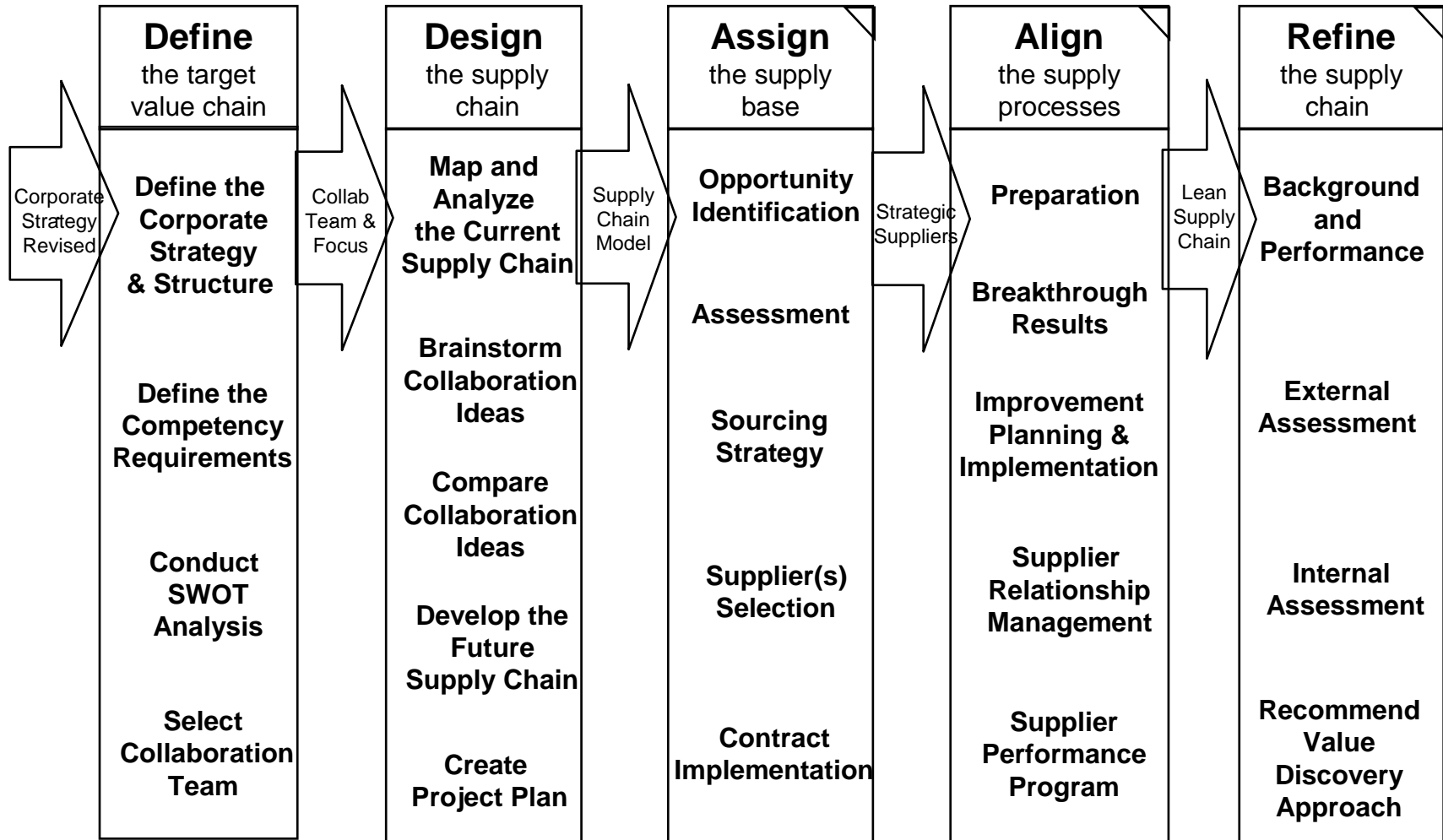
5 = Very Favorable, 3 = Moderately Favorable, 1 = Unfavorable

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# A holistic process was developed using new and existing methodology that provides guidance in the creation and refinement of a collaborative supply chain



Existing methodology that focuses on incremental improvement rather than creation of the supply chain

Strategic Sourcing

Supplier Development





**Define**  
the target  
Value chain

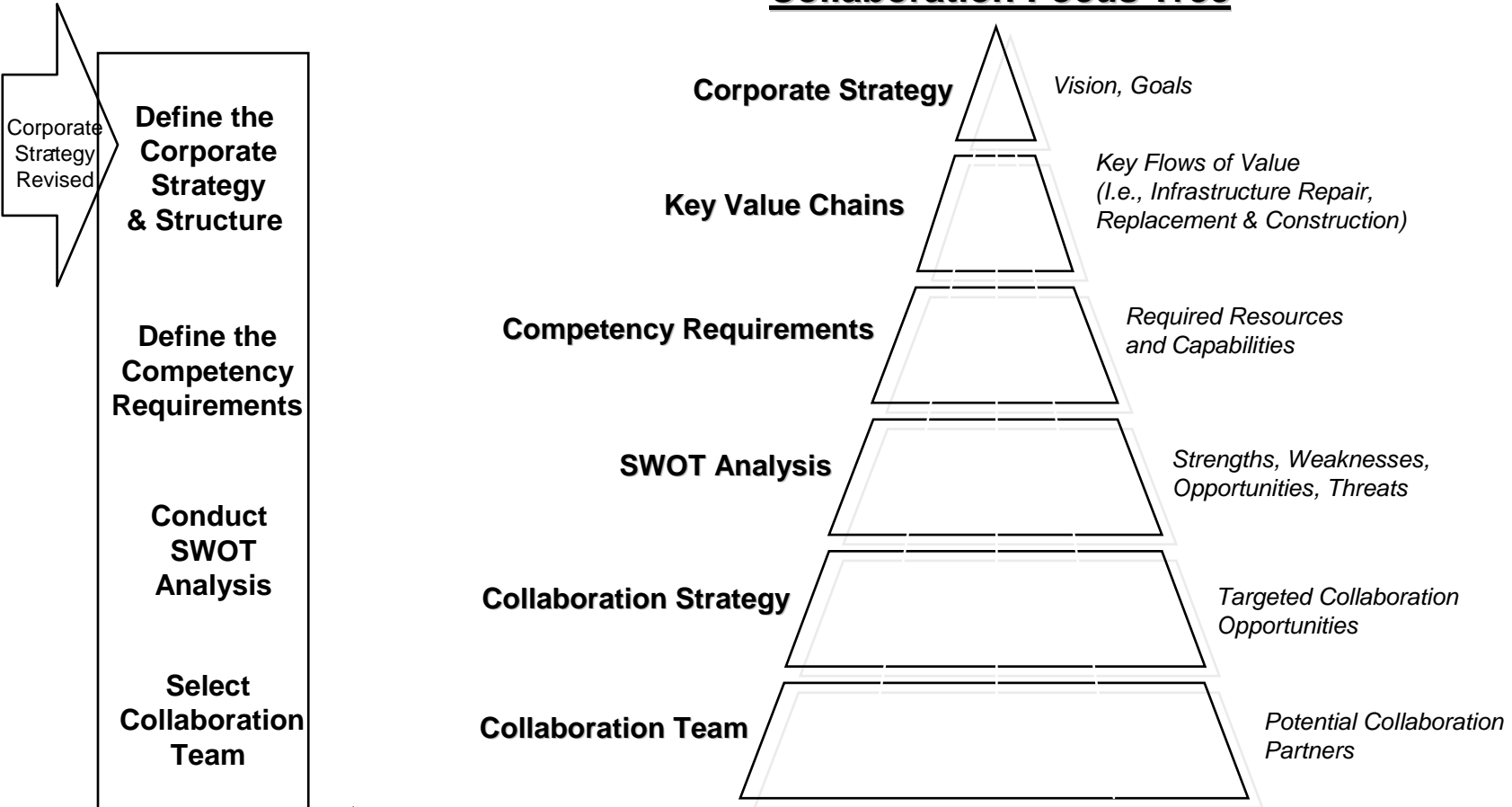
**Design**  
the supply  
chain

**Assign**  
the supply  
base

**Align**  
the supply  
processes

**Refine**  
the supply  
chain

# Define the target value chain



**Collaboration team & target value chain**

**Define**  
the target  
Value chain

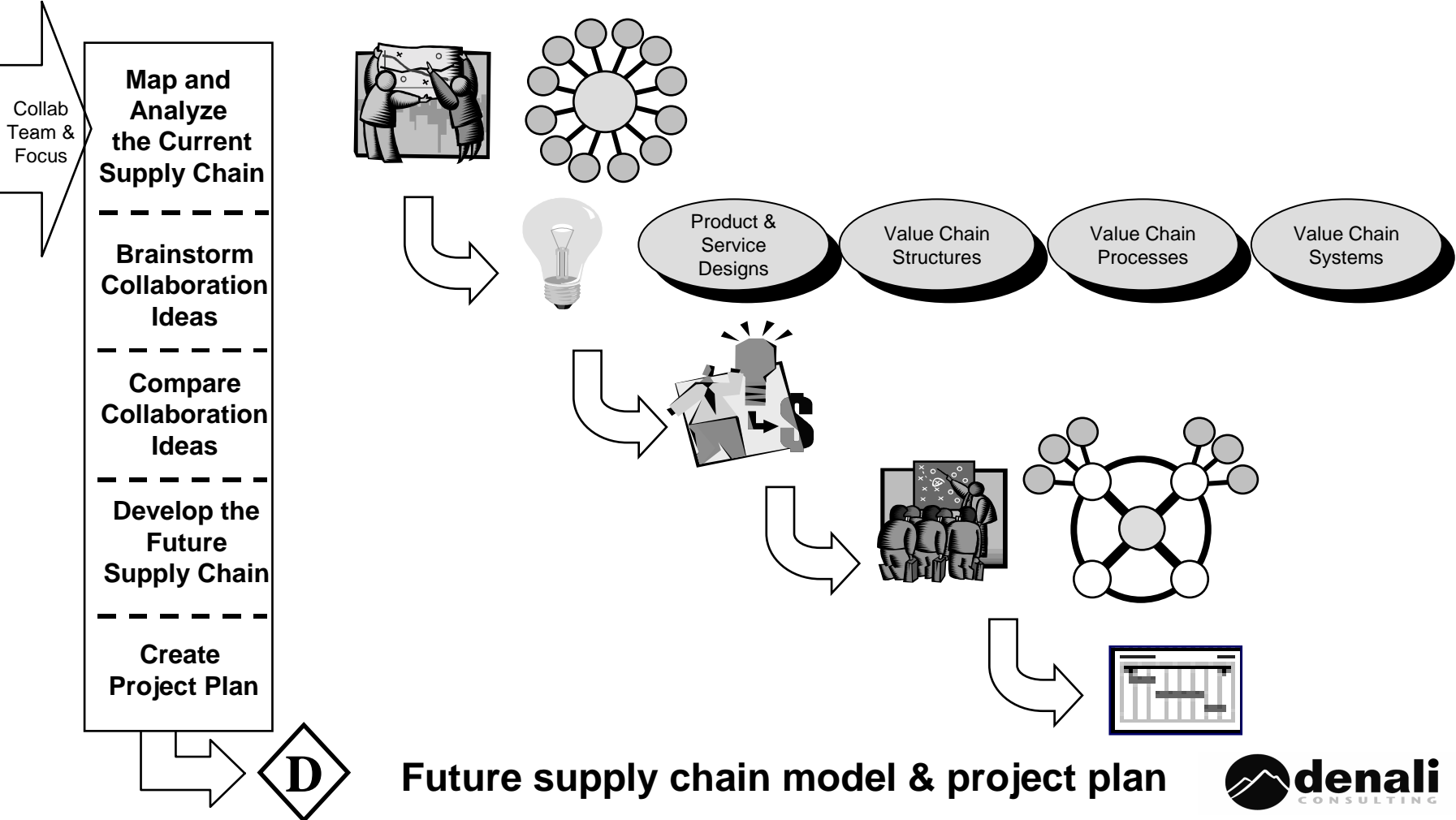
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# Design the supply chain



**Define**  
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Value chain

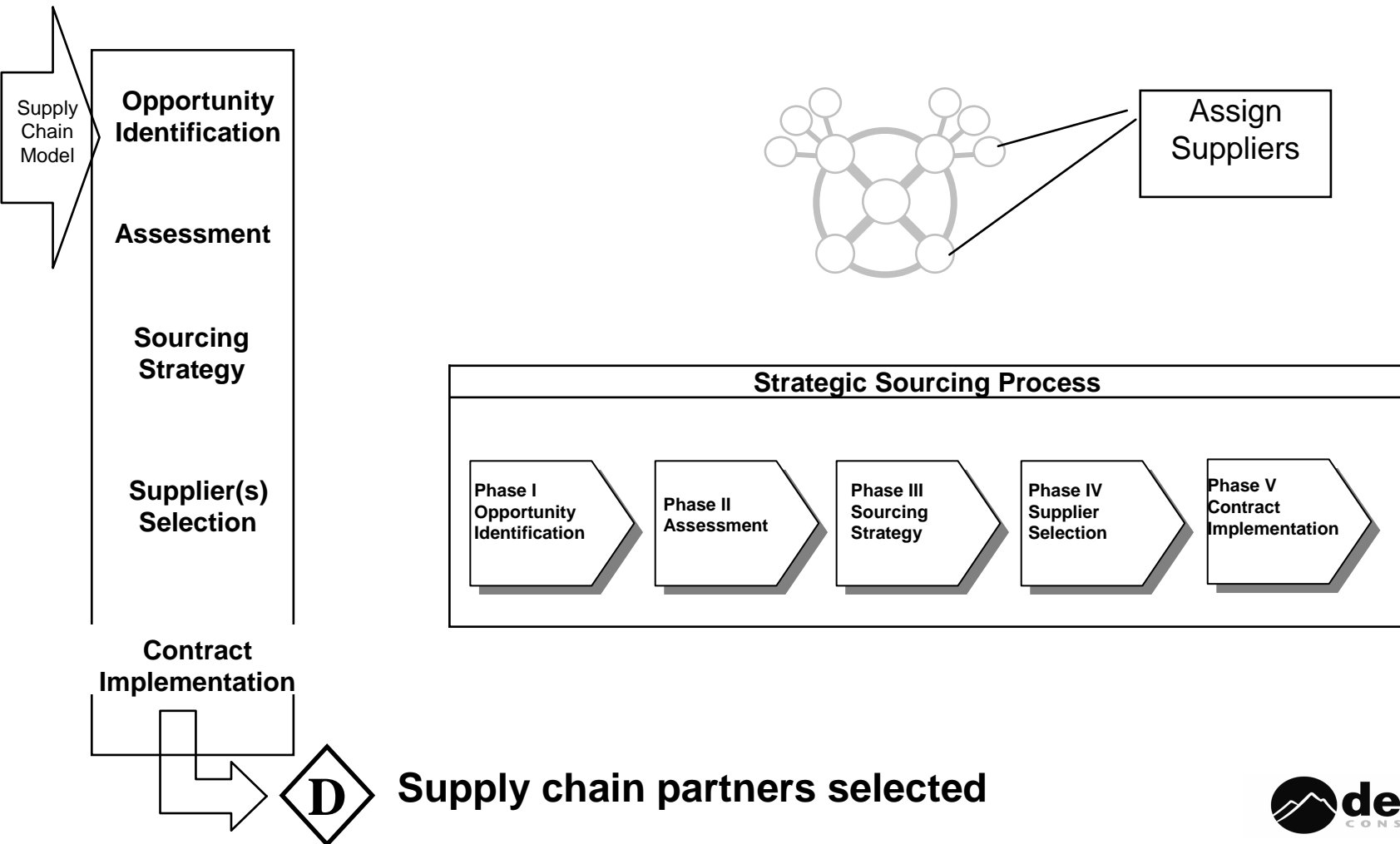
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# Assign the supply base through Strategic Sourcing



**Define**  
the target  
Value chain

**Design**  
the supply  
chain

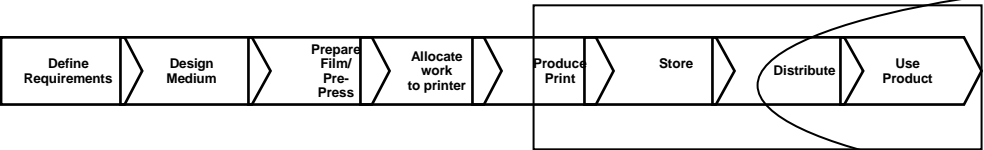
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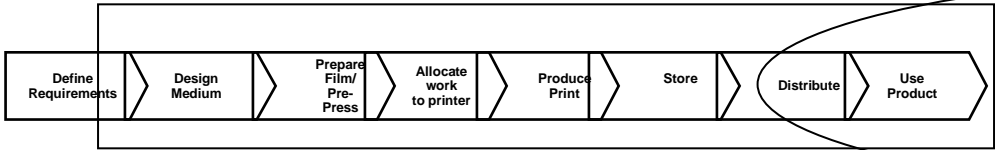
# Collaboration needs to reconsider traditional make vs. buy demarcations

## -Print Example



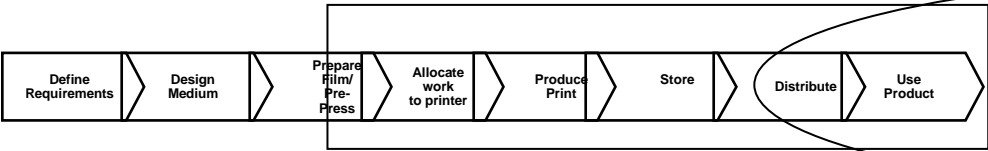
### Internal Print Management

Large corporations may find that conducting print management internally is feasible



### External Print Management

Eliminate duplication of process by driving vendor accountability upstream



### Hybrid Approach

Digitization and eProcurement are enabling hybrid approaches, reducing the need for single channels of control

**Define**  
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Value chain

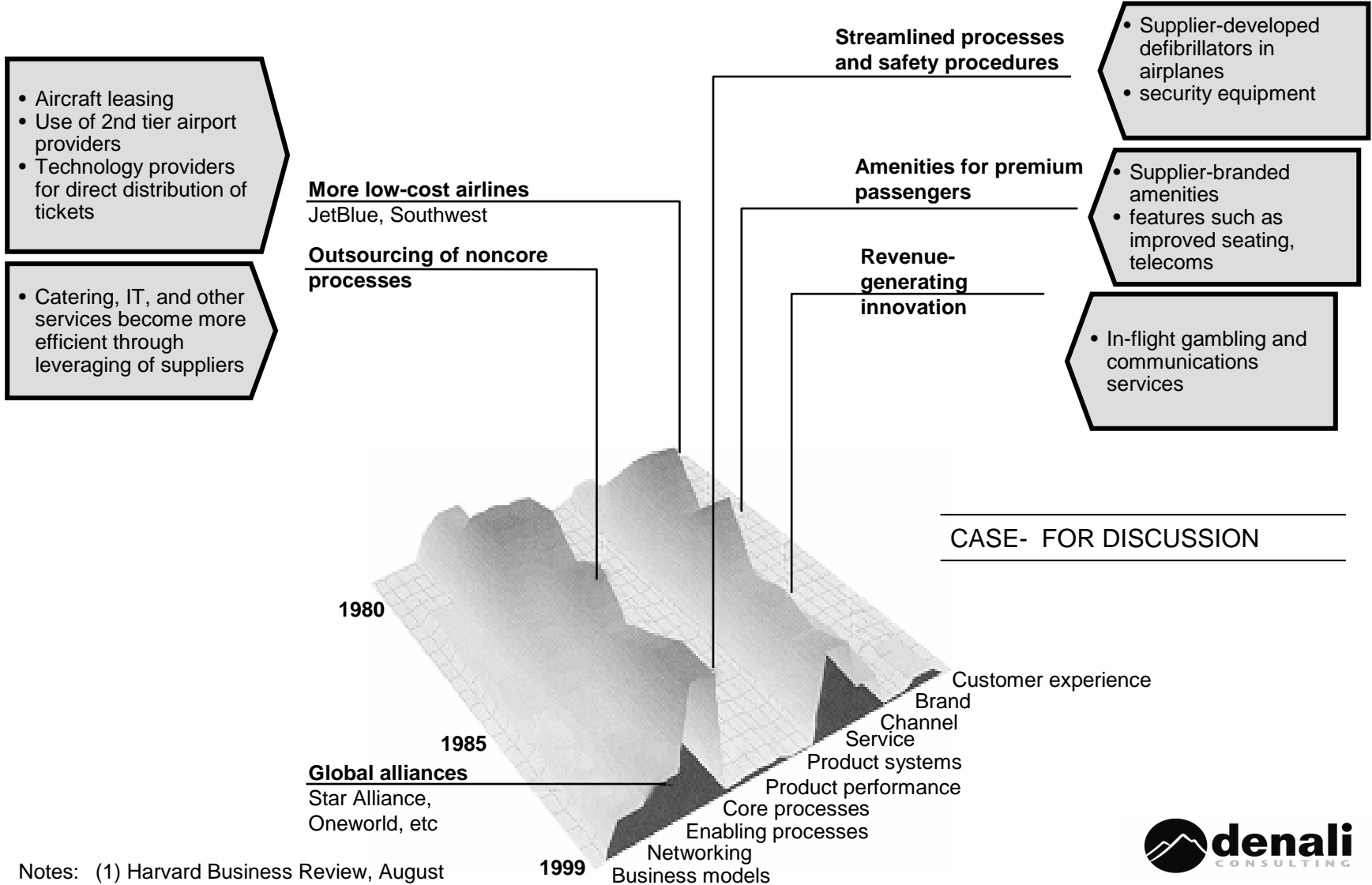
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# Advanced sourcing can create significant competitive advantage- Airline industry example



Notes: (1) Harvard Business Review, August 2000

**Define**  
the target  
Value chain

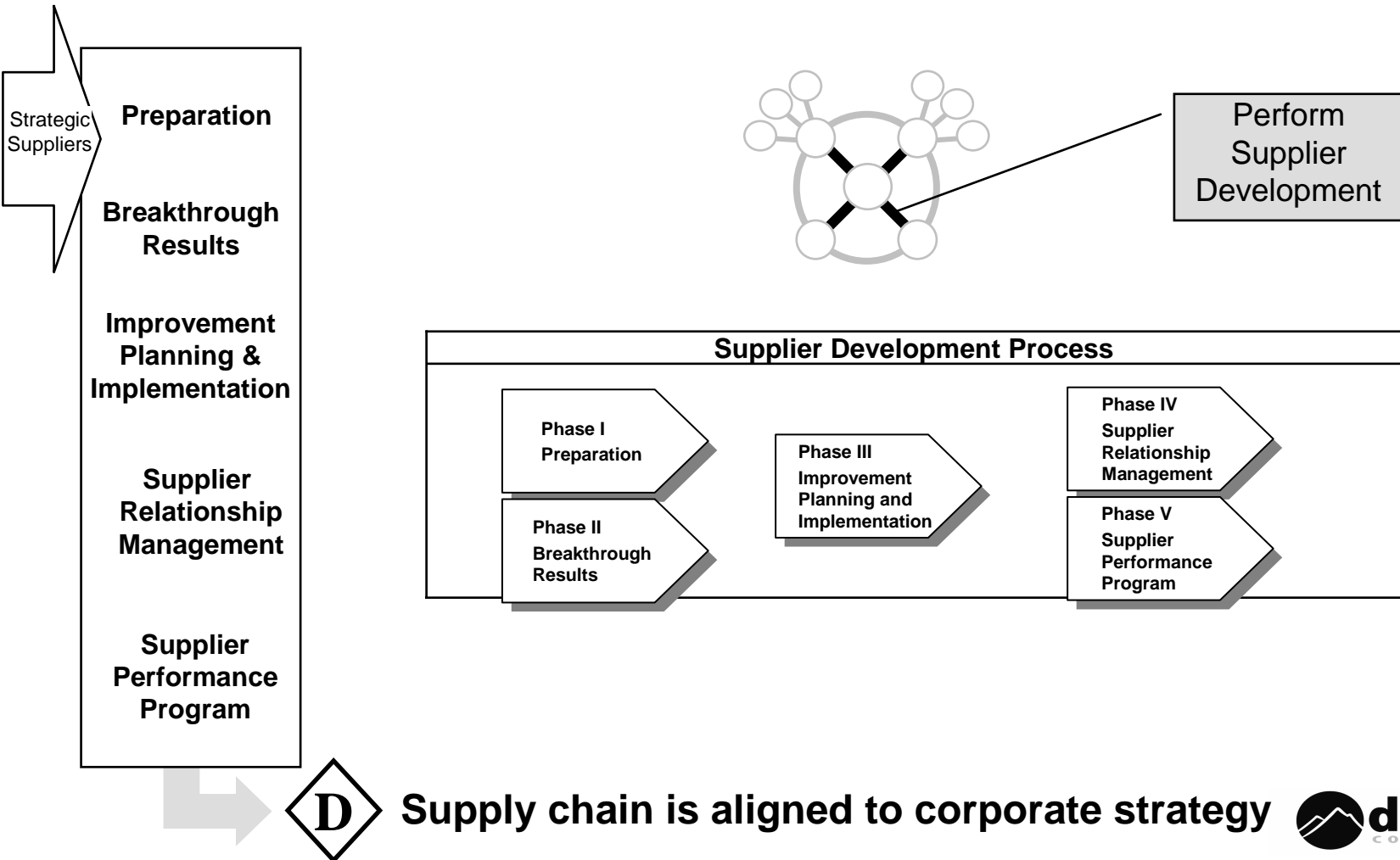
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# Align the supply base using Supplier Development



**Define**  
the target  
Value chain

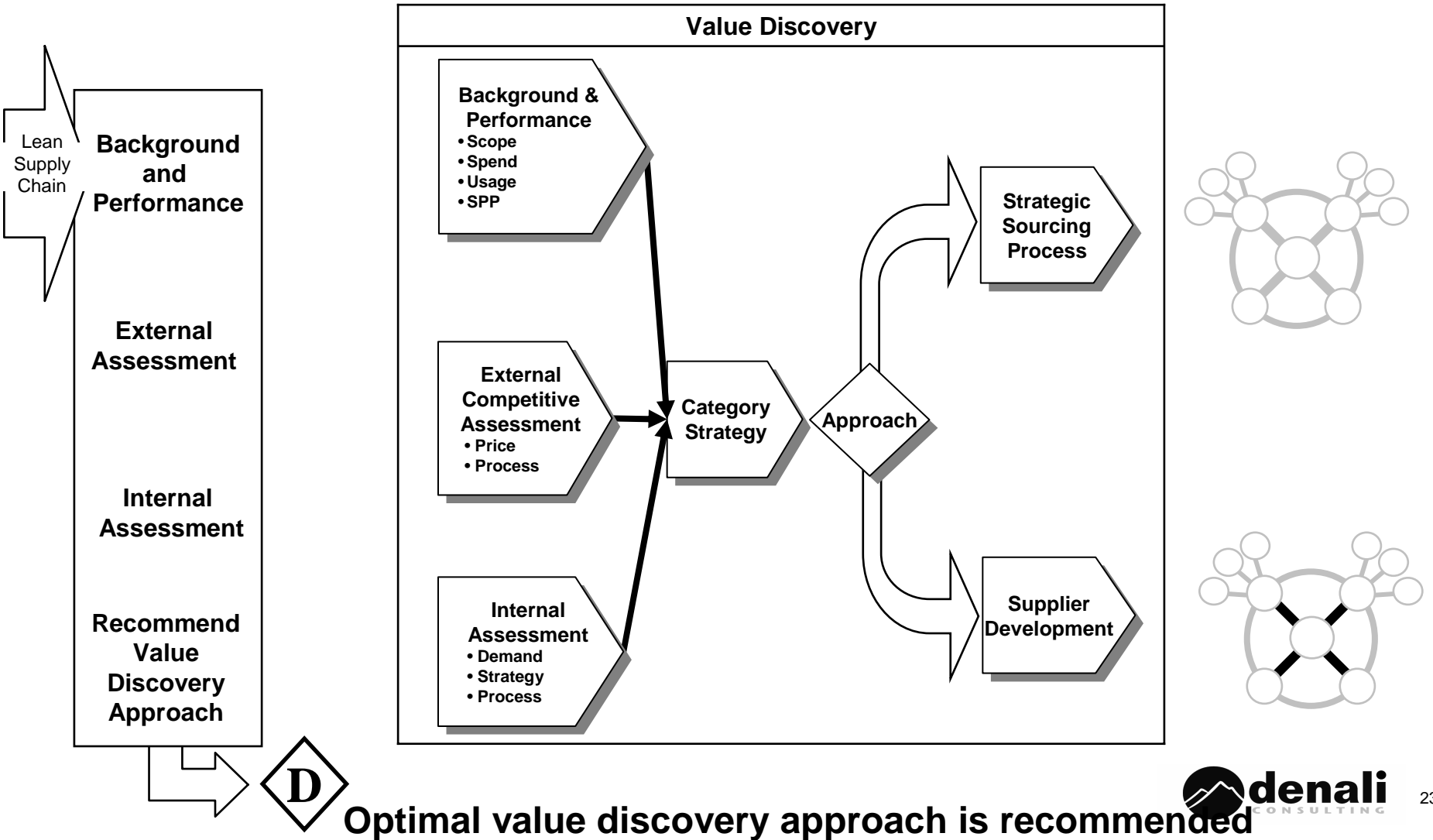
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# Refine the supply chain using Value Discovery approaches



# Agenda

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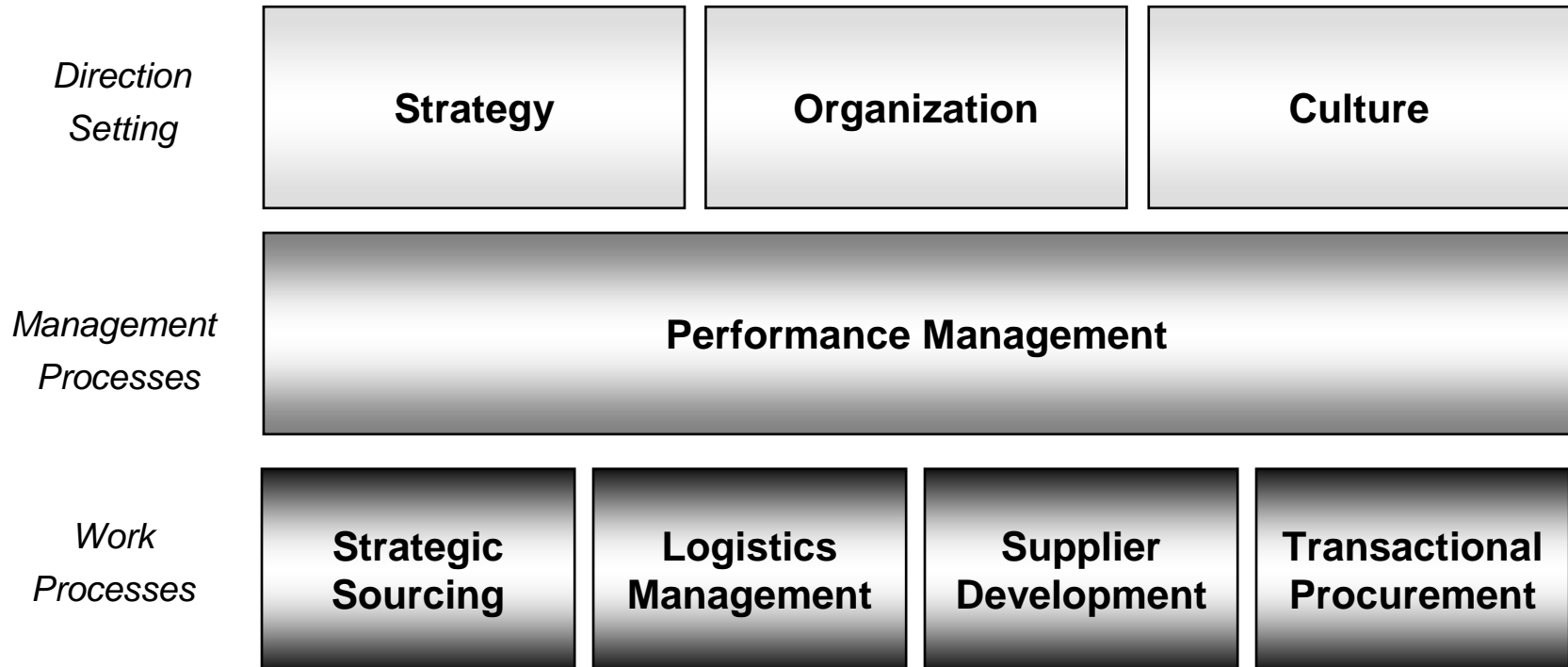
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# A disciplined approach of managing the eight dimensions of supply-chain management is required for companies to master collaboration

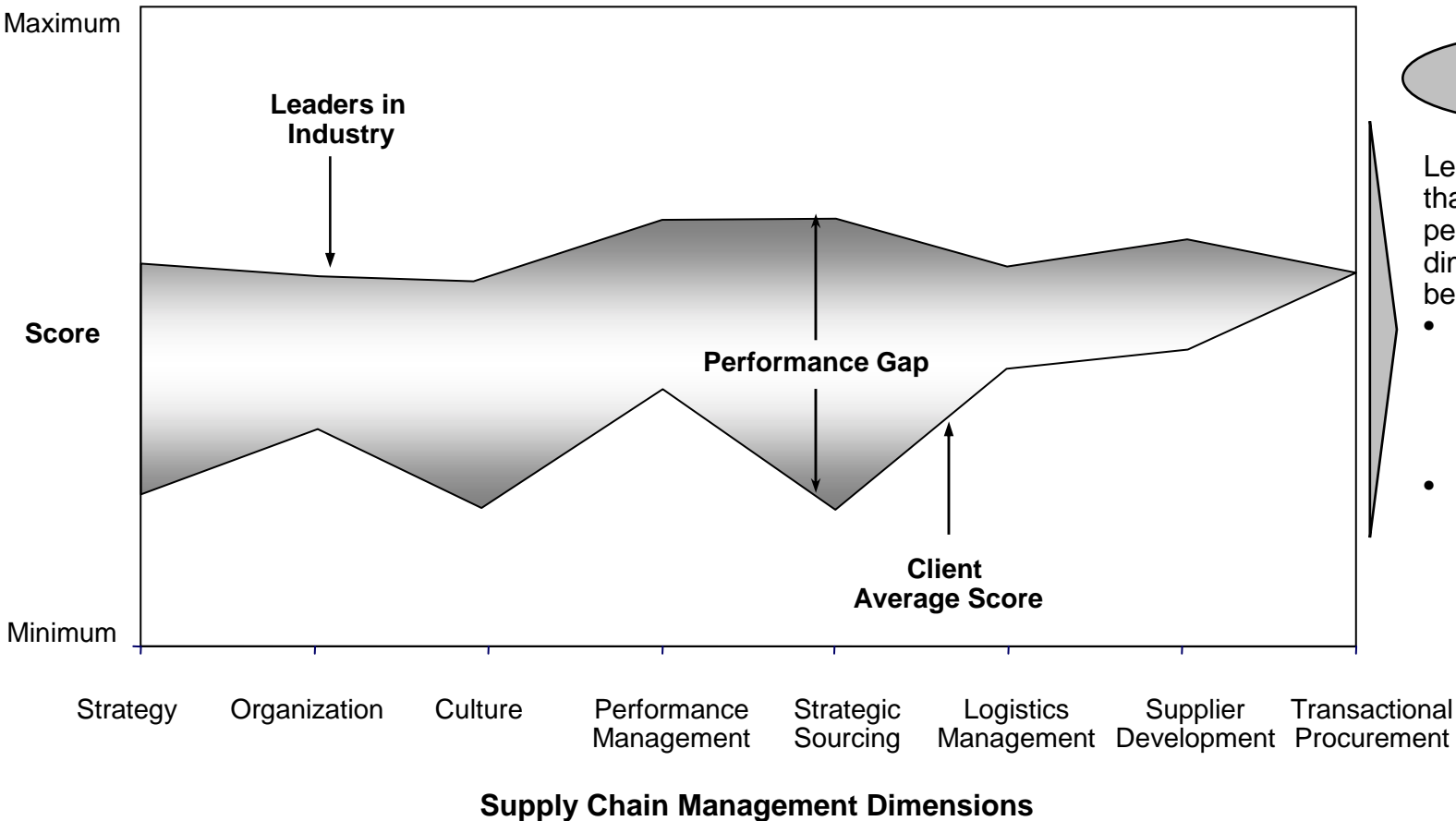
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## Eight Dimensions of Supply Chain Management



# Gaps against leaders should be identified and addressed

## Supply Chain Performance Versus Industry Leaders



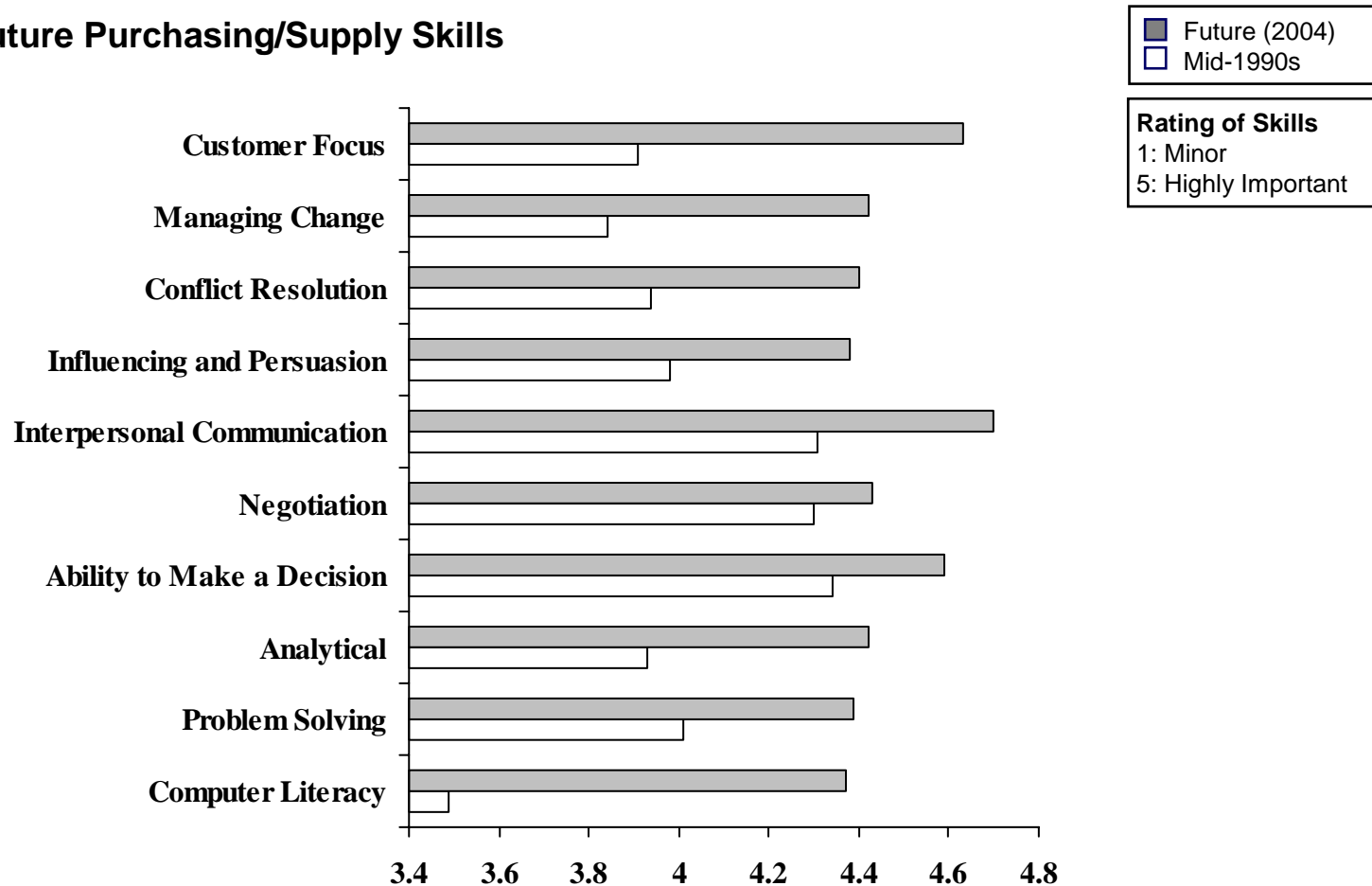
### Implications

Leaders have shown that consistent performance across dimensions enhances benefit realisation :

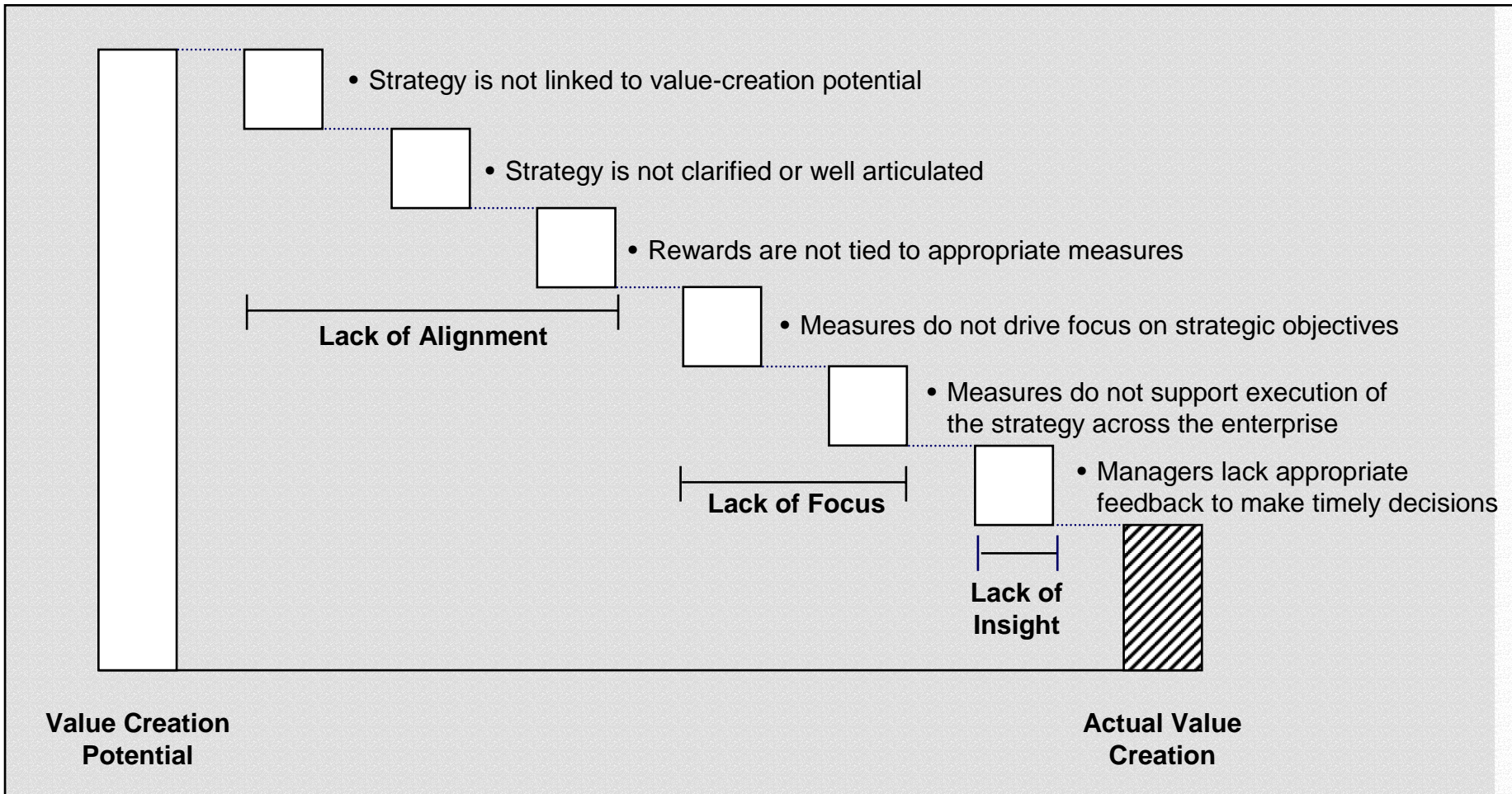
- Immediately realised - (Leaders are typically at 8-12% cost advantage)
- Benefits to be sustained over time

# Increased customer awareness, change management and information-technology literacy emerge among a variety of increasingly compelling skills requirements

## Current and Future Purchasing/Supply Skills



# The vehicle that supports collaboration is often the root cause of why organizations can't realize the advanced benefits



# Questions?

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Thank you for providing us with the opportunity to present this afternoon!

**PLEASE CONTACT US IF YOU WANT A CUSTOMIZED PRESENTATION  
TO THE SPECIFIC COLLABORATION ISSUES OF YOUR INDUSTRY**

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Partner

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