



# Supply Chain - SCOR

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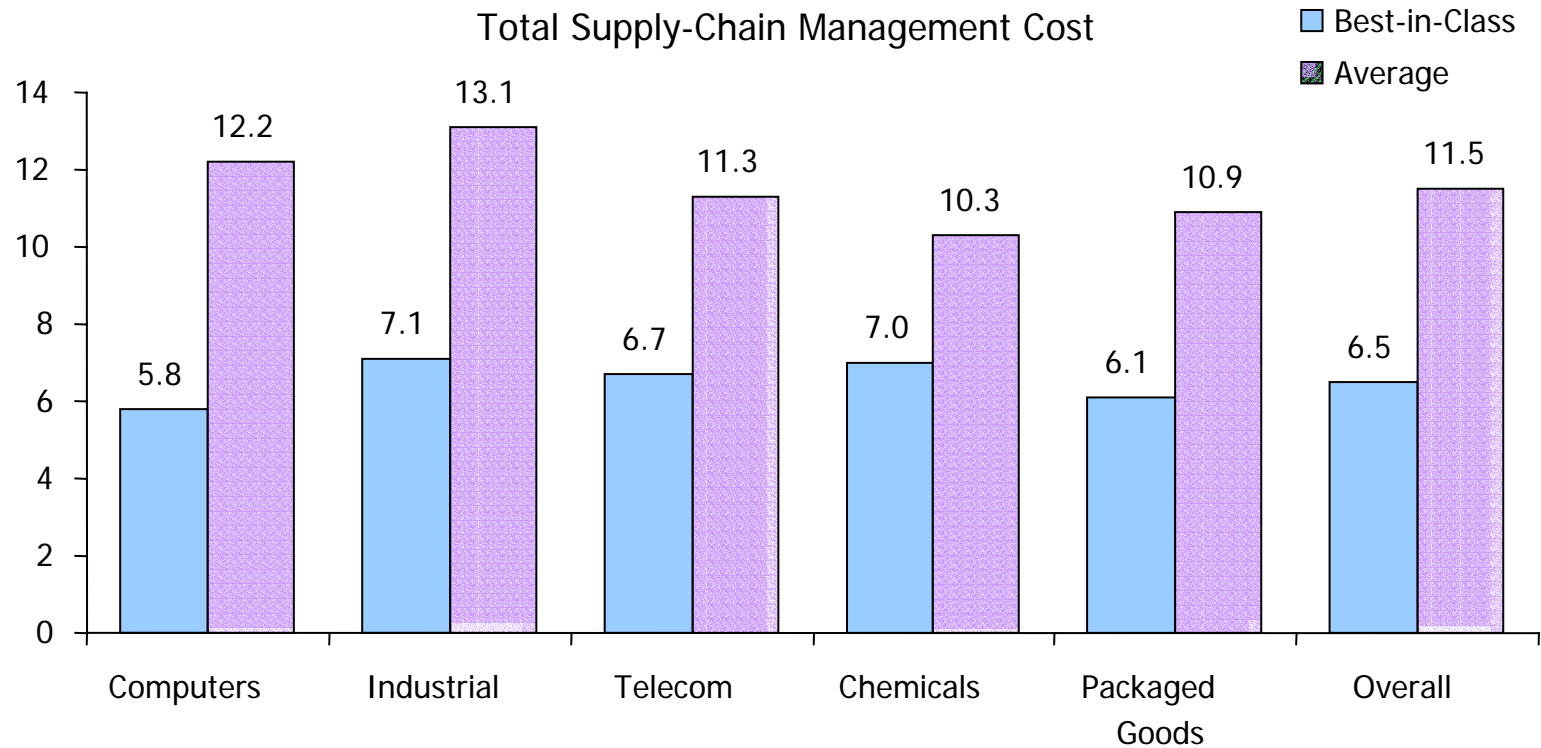
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# (SCM) ?

- (SCM) 가가  
,  
(Global Supply Chain Forum, 1998).
- (SCM)  
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,  
,  
(Simchi-  
Levi, 2000).

# (SCM)

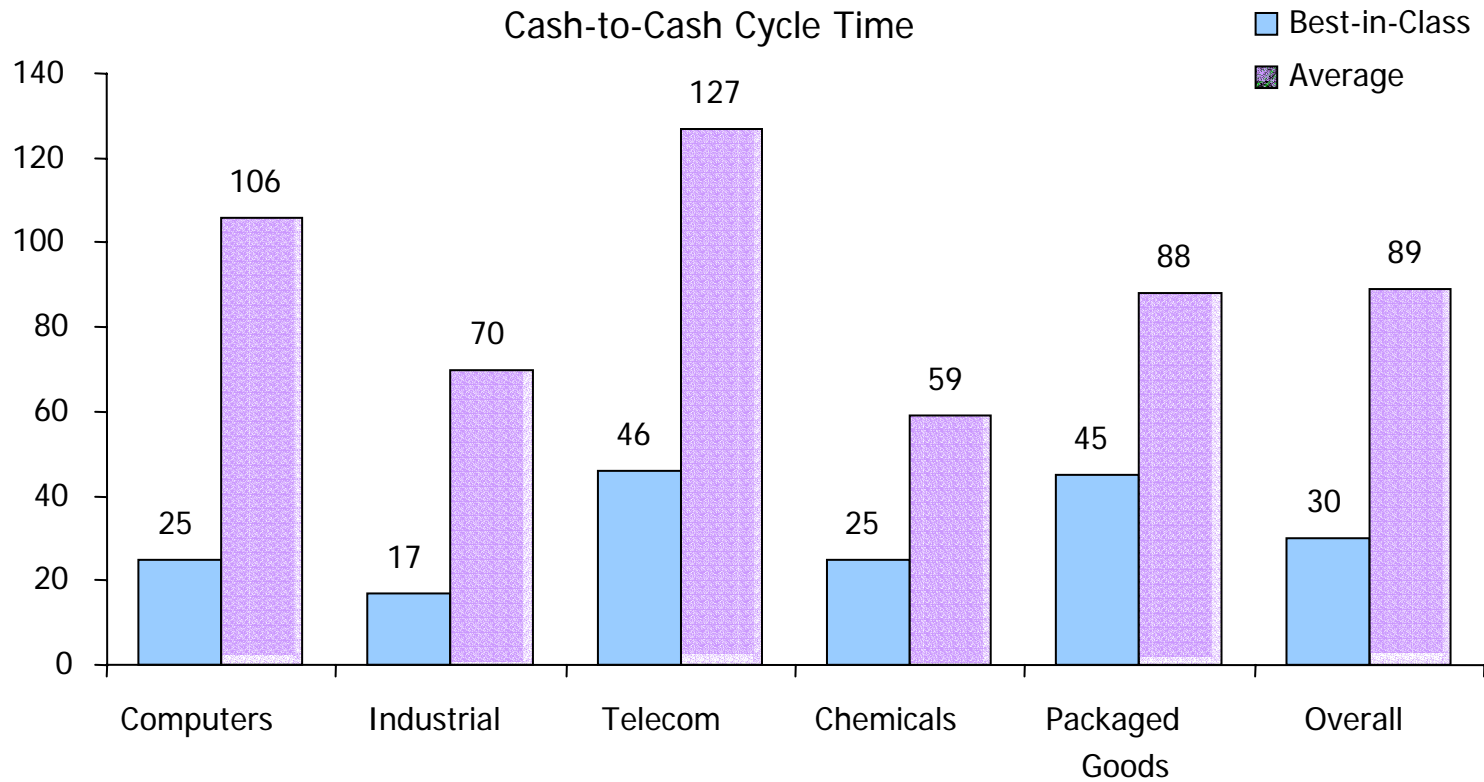
- Best-in-class companies cost) (total supply-chain management 가 3%-6%



: PRTM, 1997 Integrated Supply-Chain Benchmarking Study

# (SCM)

- Best-in-class companies (cash-to-cash cycle time)  
40%-65% 가



: PRTM, 1997 Integrated Supply-Chain Benchmarking Study

(%)	Best-in-class	94.3	97.6	97	99	93.9
	Median	72.6	81.2	68.9	79	77
( )	Best-in-class	4.3	8.3	10	6	2.6
	Median	30	42	30	30	25.5
(%)	Best-in-class	4	4.9	4.3	3.9	3.3
	Median	8.3	9.2	10.2	11.2	8.3
( )	Best-in-class	28.7	24.7	18.5	33.4	44.4
	Median	75.1	66.6	67.6	91.2	100.2

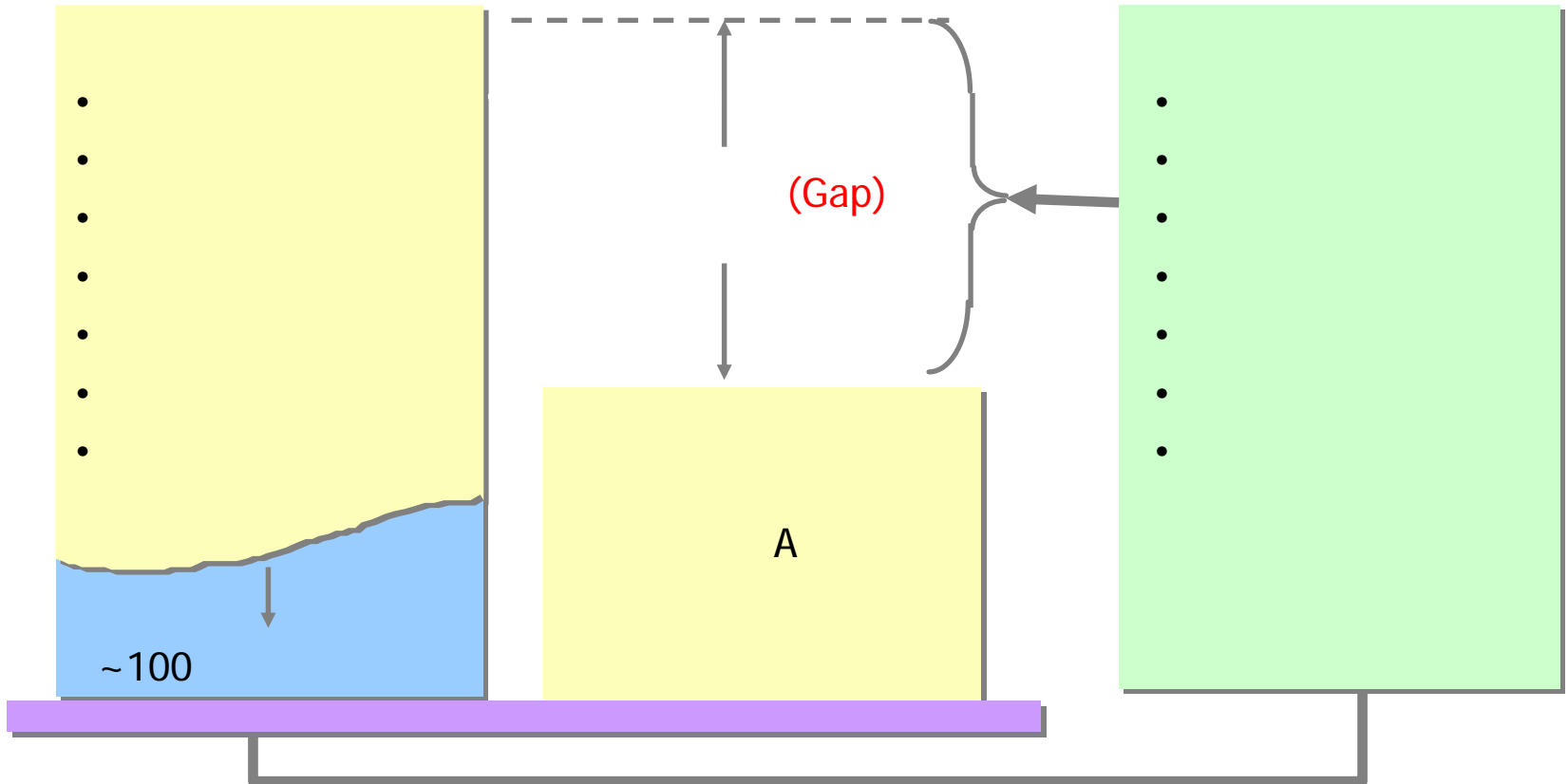
: PRTM, Supply-Chain Management Benchmarking Series, 1999. 6

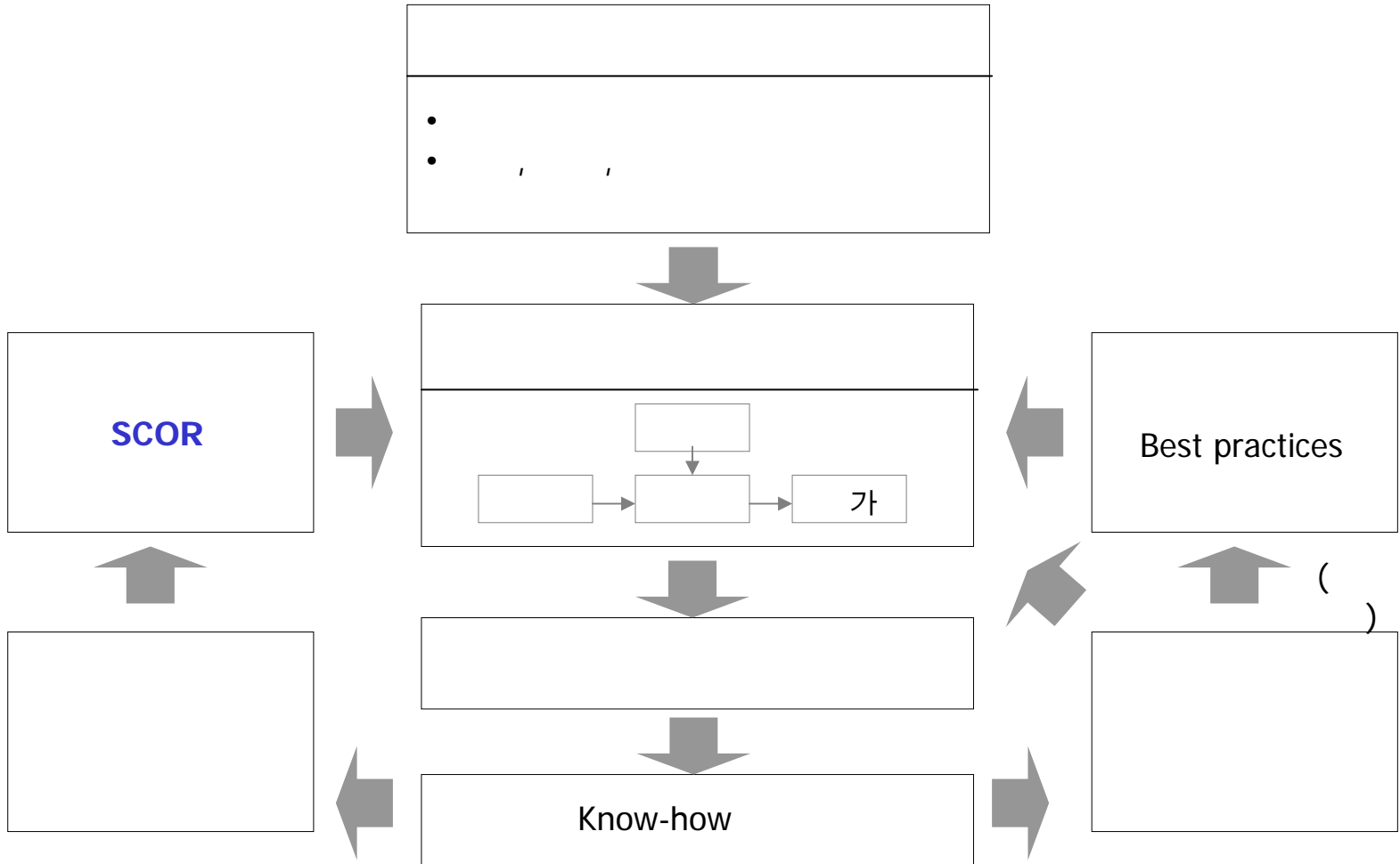
		1997	1998	1999	2000	2001
( )	Average	111.2	117.1	101.1	95.1	104.4
	Median	90.4	80.6	76.2	76.5	77.7
( )	Average	82.2	82.9	77.1	95.6	77.3
	Median	67.1	58.7	56.9	53.6	52.7
( )	Average	5.0	3.0	5.7	5.3	2.9
	Median	2.6	1.9	1.6	1.7	1.7

: 2002 , , " , 2002. 6

" , SCM

## Best Practices



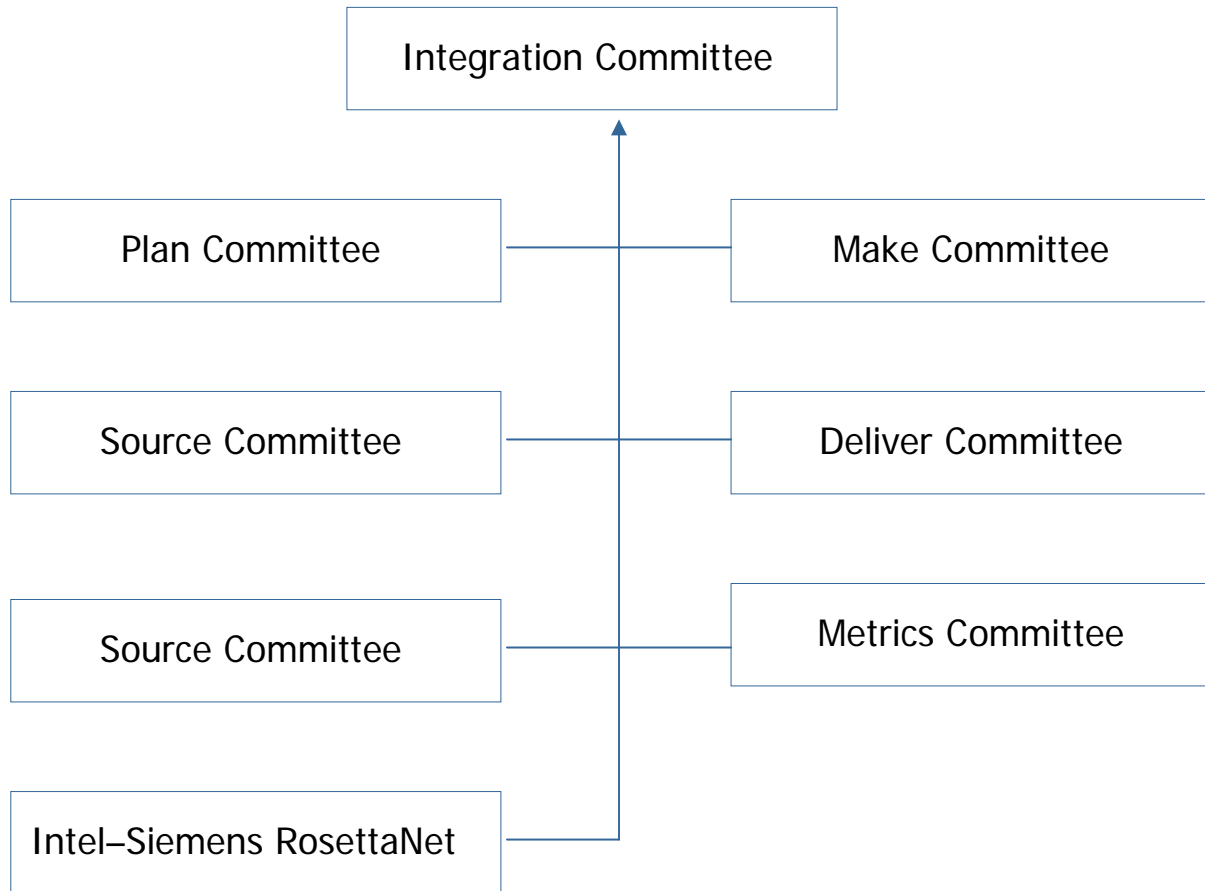




# SCC (Supply Chain Council)

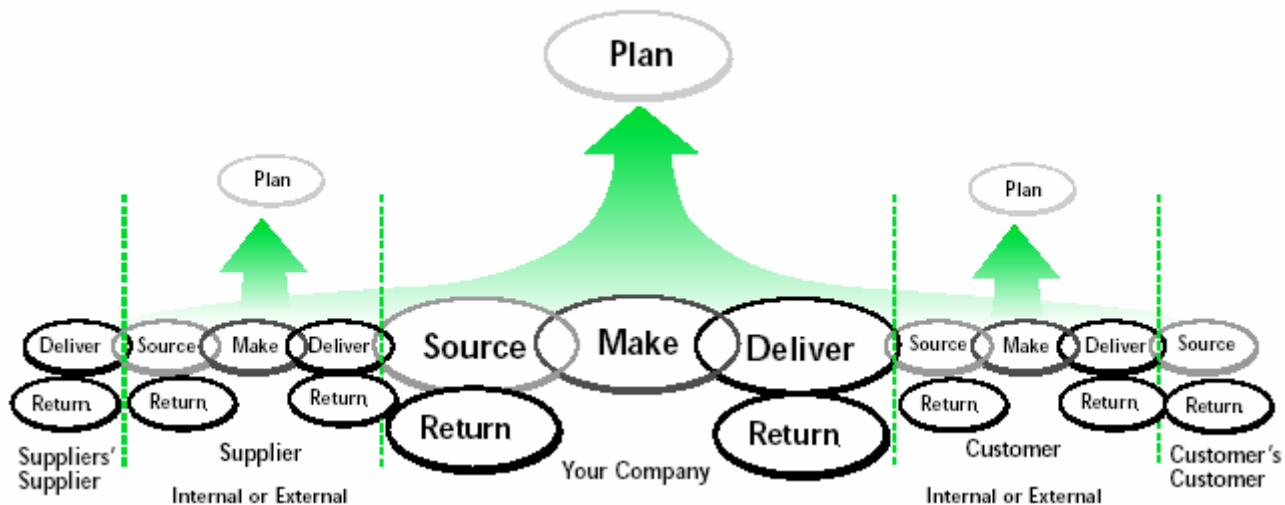
- - 1996 PRTM AMR 가 SCOR
  - 1996 SCOR 1.0
  - 1997. 6 SCC . 70
  - 700 + 2,700
  - 가 , / , , , , ,
  - 2001 SCOR 5.0
- - SCOR
  - Seminar, Workshop, Conference
  - Website ([www.supply-chain.org](http://www.supply-chain.org))
- - : \$1,750/ ; , , : \$200/
  - SCOR Workshop

# SCC (Supply Chain Council)



# SCOR

- SCOR(Supply Chain Operations Reference-model) SCC(Supply-Chain Council) process reference model( )
- SCOR (supply chain)
- SCOR Plan( ), Source( ), Make( ), Deliver( ), Return( ) 5가
- , ,

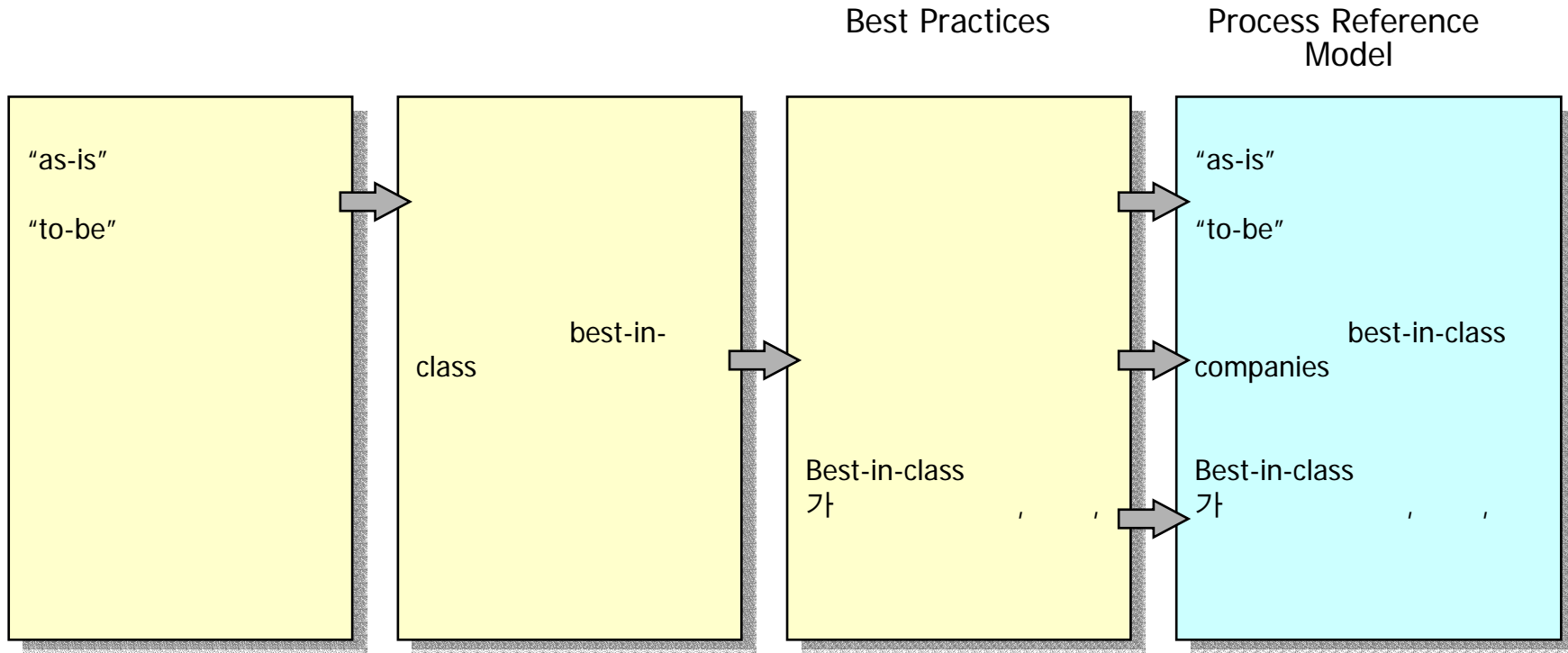


# SCOR

Plan( )	● 가	● / ●
Source( )	●	● / ●
Make( )	●	● ●
Deliver( )	●	● ● ● ●

# Process Reference Model

- Process Reference Model (BPR), Best practices (Benchmarking)



# Process Reference Model

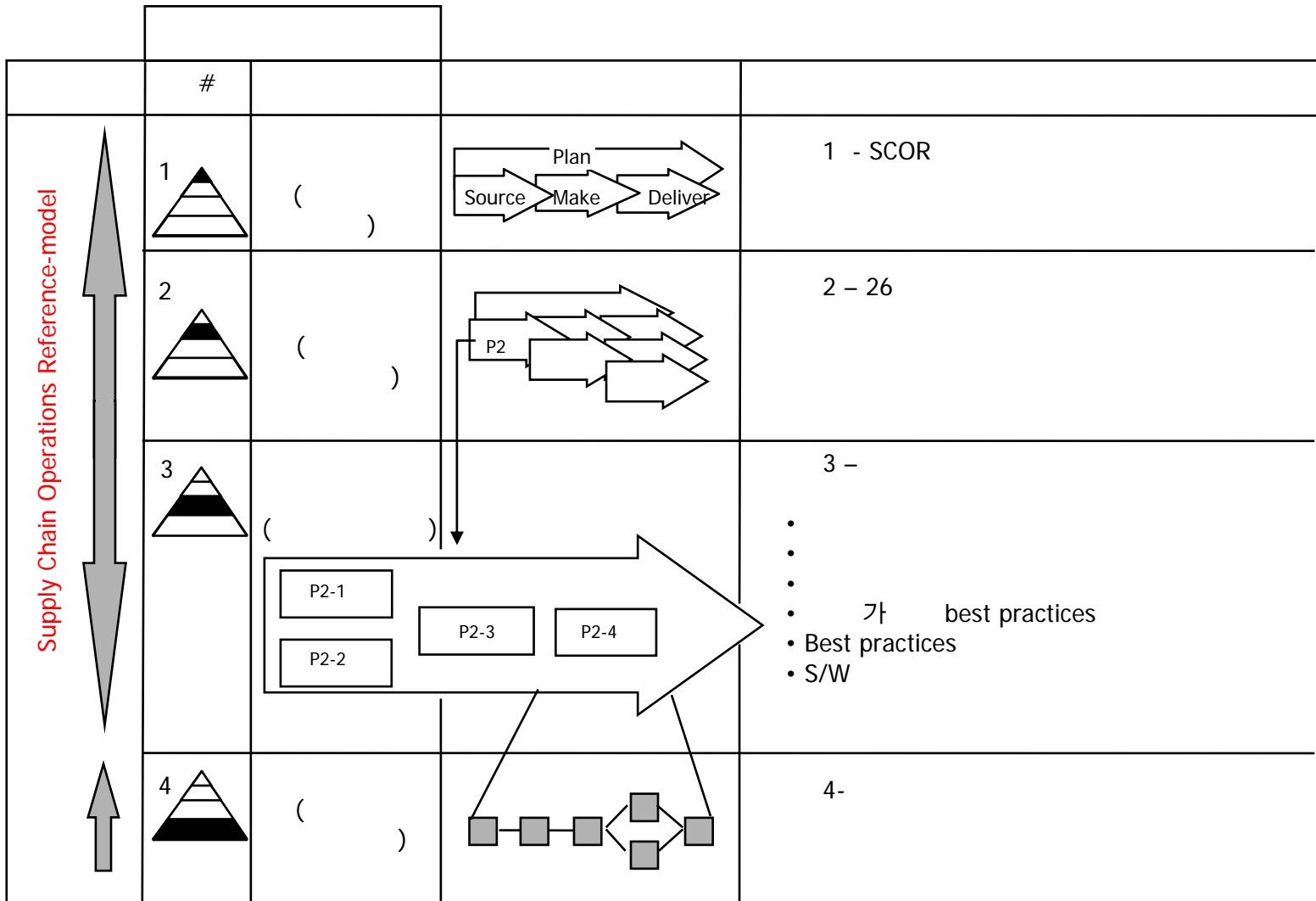
- Process Reference Model

- - " "
- - , ,
- Best-in-class
  - Best performance 가 best practices
- Best practice 가 , S/W
  - 가 S/W

- Process Reference Model

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- 가
- 
- 가
- , , ,

# SCOR –



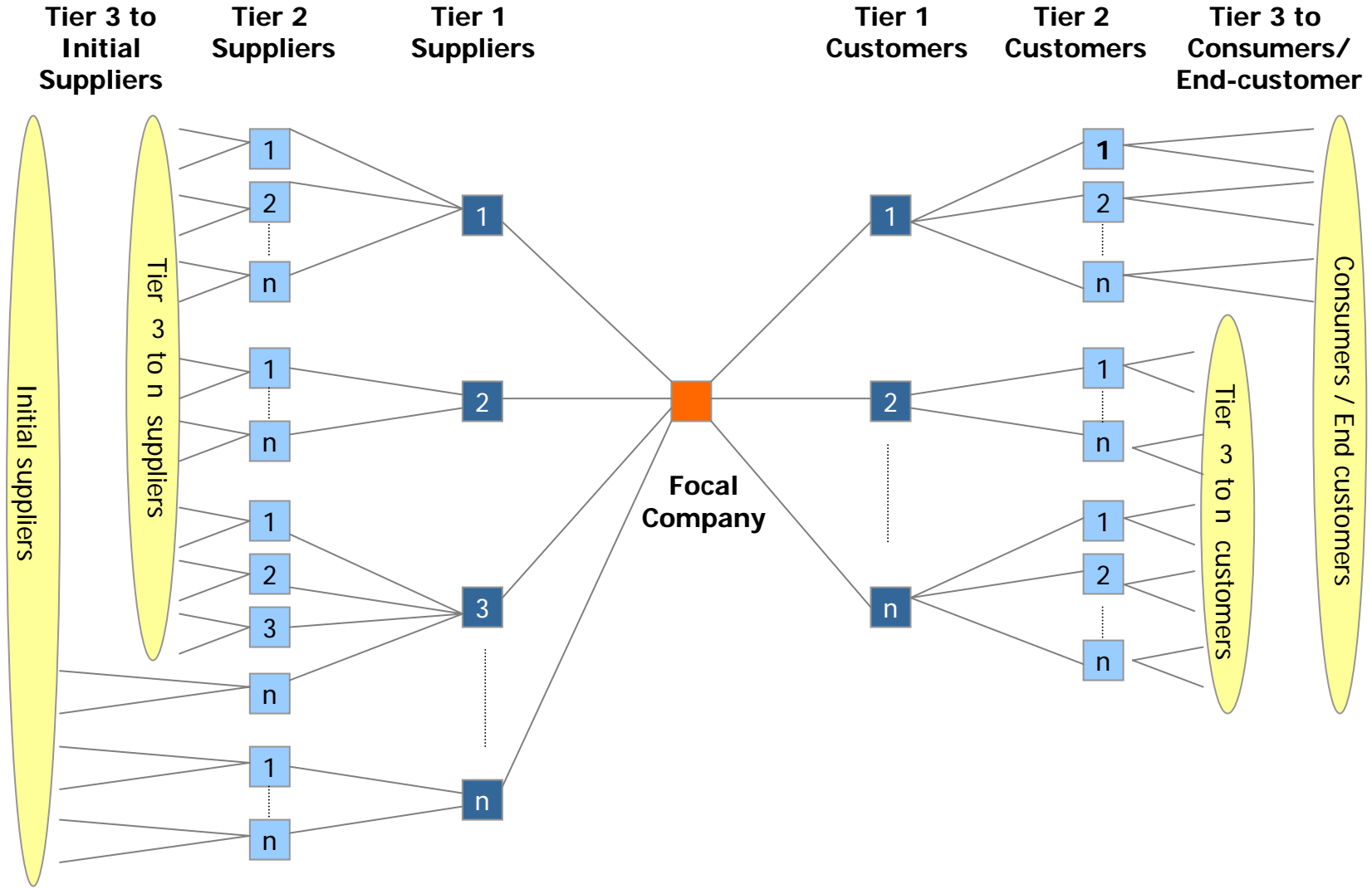
	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>-</li> <li>-</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> </ul>	
	<ul style="list-style-type: none"> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> </ul>	
	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul> <p style="margin-left: 20px;">가가</p>		<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> </ul>
	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>		<ul style="list-style-type: none"> <li>✓</li> <li>✓</li> <li>✓</li> </ul>

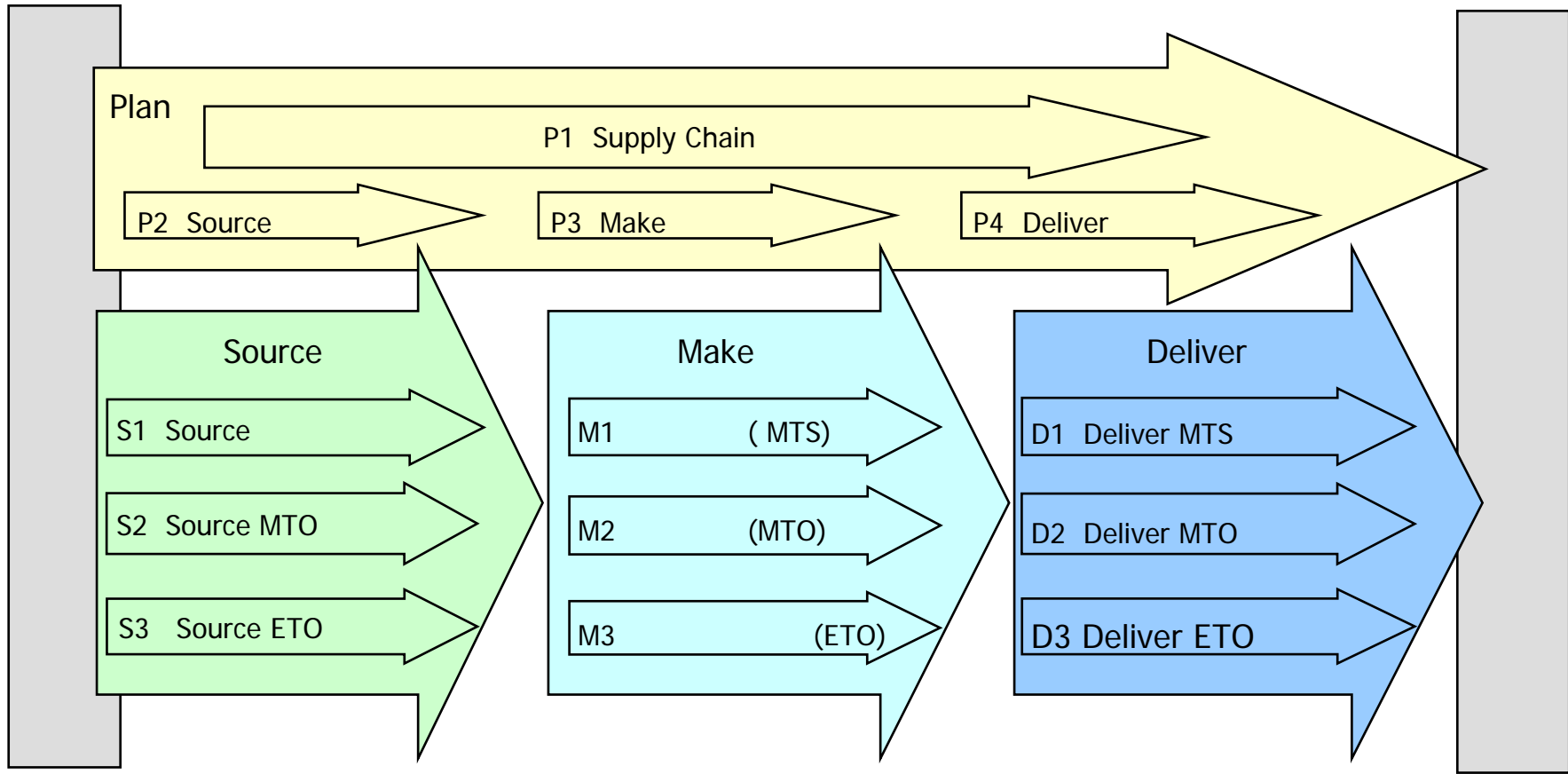
: Supply-Chain Operations Reference Model : SCOR Metrics Level 1, Supply Chain Council, 2000. 3



# - Supply Chain Scorecard

Supply-Chain Scorecard		Supply-Chain Performance vs. Competitive Population				
		0%-20% Major Opportunities	20%-40% Disadvantage	40%-60% Average	60%-80% Advantage	80%-100% Best-in-class
				xx % xx days xx %		xx % xx days xx %
				xx %		xx %
				xx days		xx days
				xx days		xx days
				xx %		xx %
				xx %		xx %
	가가			\$ xxx K		\$ xxx K
				xx days xx days		xx days xx days
				xx turns		xx turns





: Return, Enable

(MTS, Make-to-stock)	( ) ,
(MTO, Make-to-order)	
(ATO, Assemble-to-order)	가
(ETO, Engineer-to-order)	,

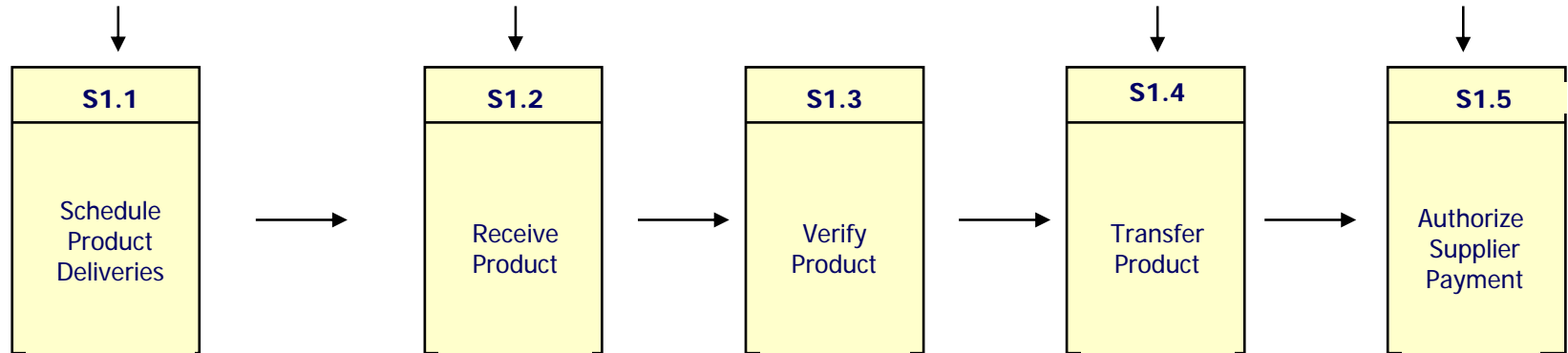
## S1 : Source Stocked Product

- (P2.4) Sourcing Plans
- (ES.2) Source Execution Data
- (ES.6) Logistics Selection
- (M1.1, M2.1, M3.2) Production Schedule
- (M1.2, M2.2, M3.3, D1.3) Replenishment Signals

- (Supplier) Sourced Products

- (M) (D) Product Pull Signals
- (ES.4) Product Inventory Location
- (EM) WIP Inventory Location
- (ED) Finished Goods Inventory Location

- (ES.9) Payment Terms



- Procurement Signal (Supplier) Sourced Product on Order (P2.2), (ES.9)
- Scheduled Receipts (M1.1, M2.1, M3.2, D1.8)

- Receipt Verification (ES.1, ES.2, ES.6 ES.8)

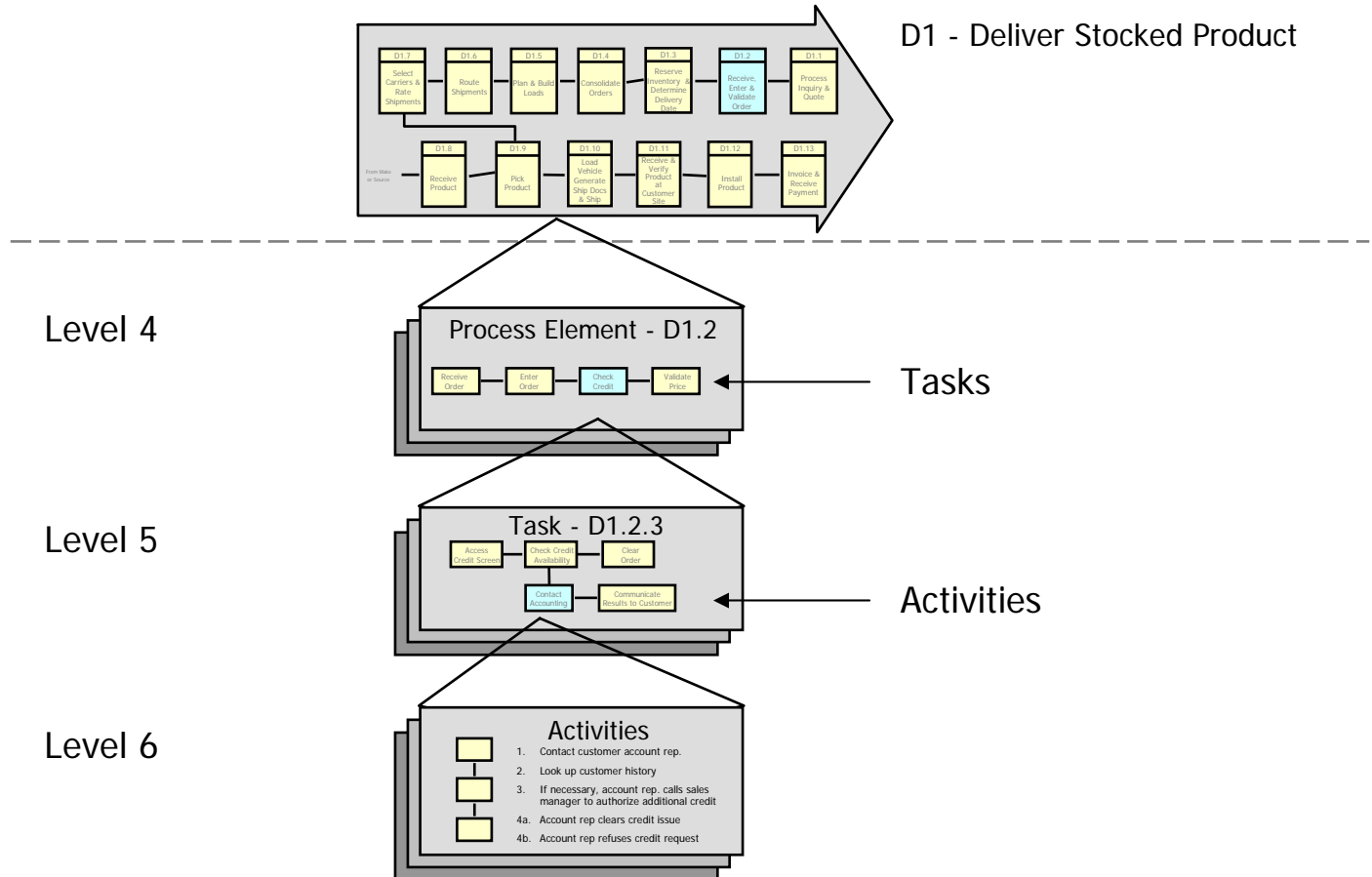
- Receipt Verification (ES.1, ES.2)

- Inventory Availability (P2.2, ES.4, M1.2, M2.2, M3.3, D1.8)

Process Element: Schedule Product Deliveries		Process Element Number: S1.1
<b>Process Element Definition</b>		
Scheduling and managing the execution of the individual deliveries of product against an existing contract or purchase order. The requirements for product releases are determined based on the detailed sourcing plan or other types of product pull signals.		
Performance Attributes	Metric	
Flexibility and Responsiveness	Total Source Lead Time % Of EDI Transactions	
Cost	Product Management and Planning Costs as a % of Product Acquisitions Costs	
Reliability	% Defective, Defective parts per million (dppm) Completion to budget and scope of service description	
Assets	Raw Material or product Days of Supply (DOS)	
Best Practices	Features	
Utilize EDI transactions to reduce cycle time and costs	EDI interface for 830, 850, 856 & 862 transactions	
VMI agreements allow suppliers to manage (replenish) inventory	Supplier managed inventories with scheduling interfaces to external supplier systems	
Mechanical (Kanban) pull signals are used to notify suppliers of the need to deliver product	Electronic Kanban support	
Consignment agreements are used to reduce assets and cycle time while increasing the availability of critical items	Consignment inventory management	
Advanced ship notices allow for tight synchronization between source and make processes	Blanket order support with scheduling interfaces to external supplier systems	

- 3 decomposition

hierarchical process



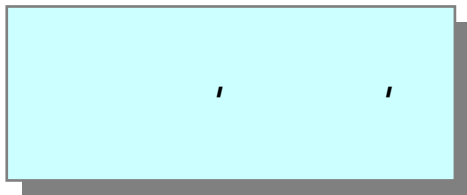
# SCOR



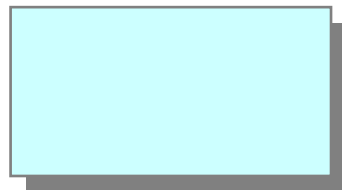
- 
- 
- Supply Chain SCORcard
- SCORcard Gap
- 



- AS IS
- AS IS
- 
- 
- TO BE
- TO BE



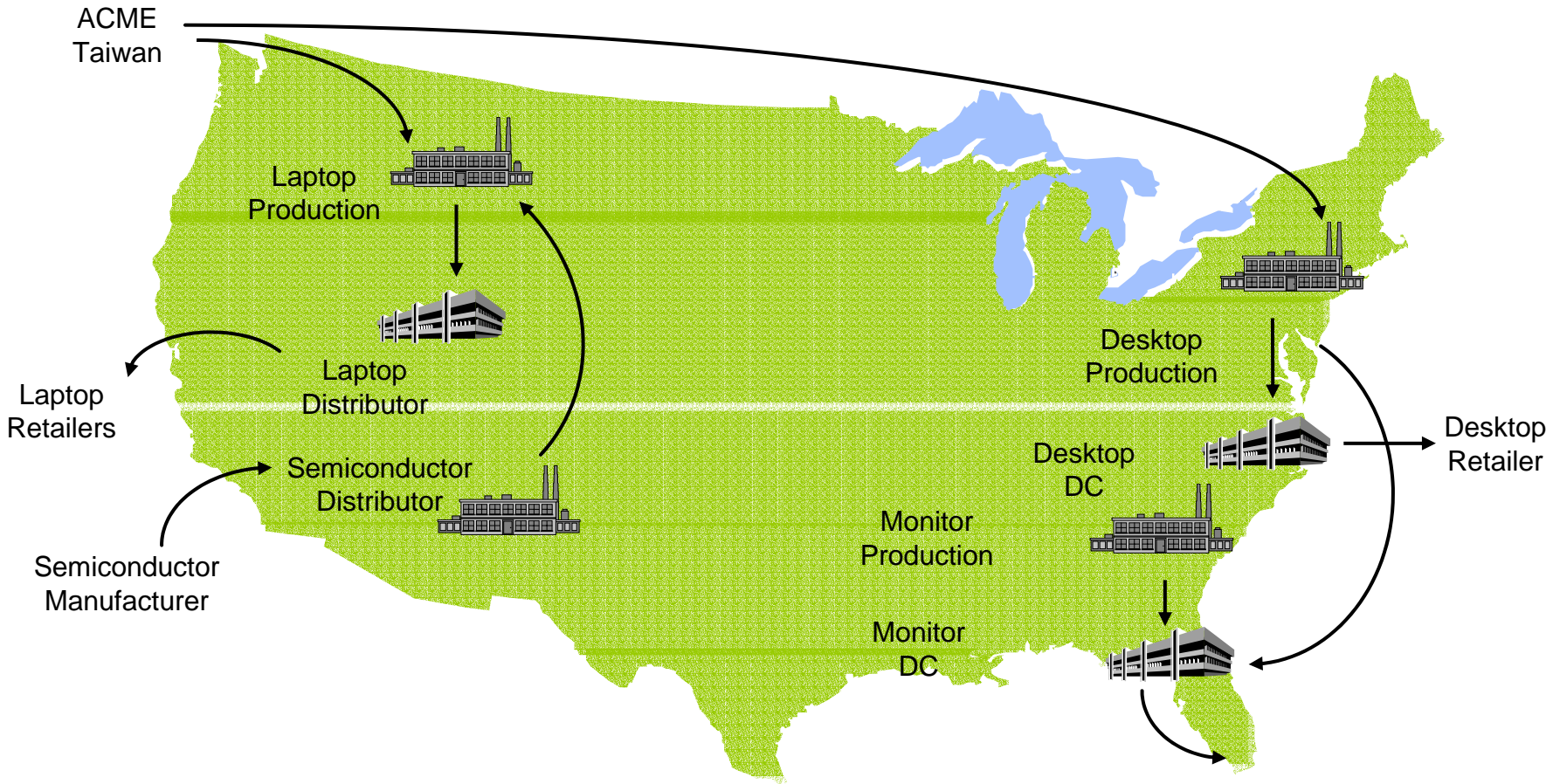
- AS IS /
- 
- 
- TO BE /
- 



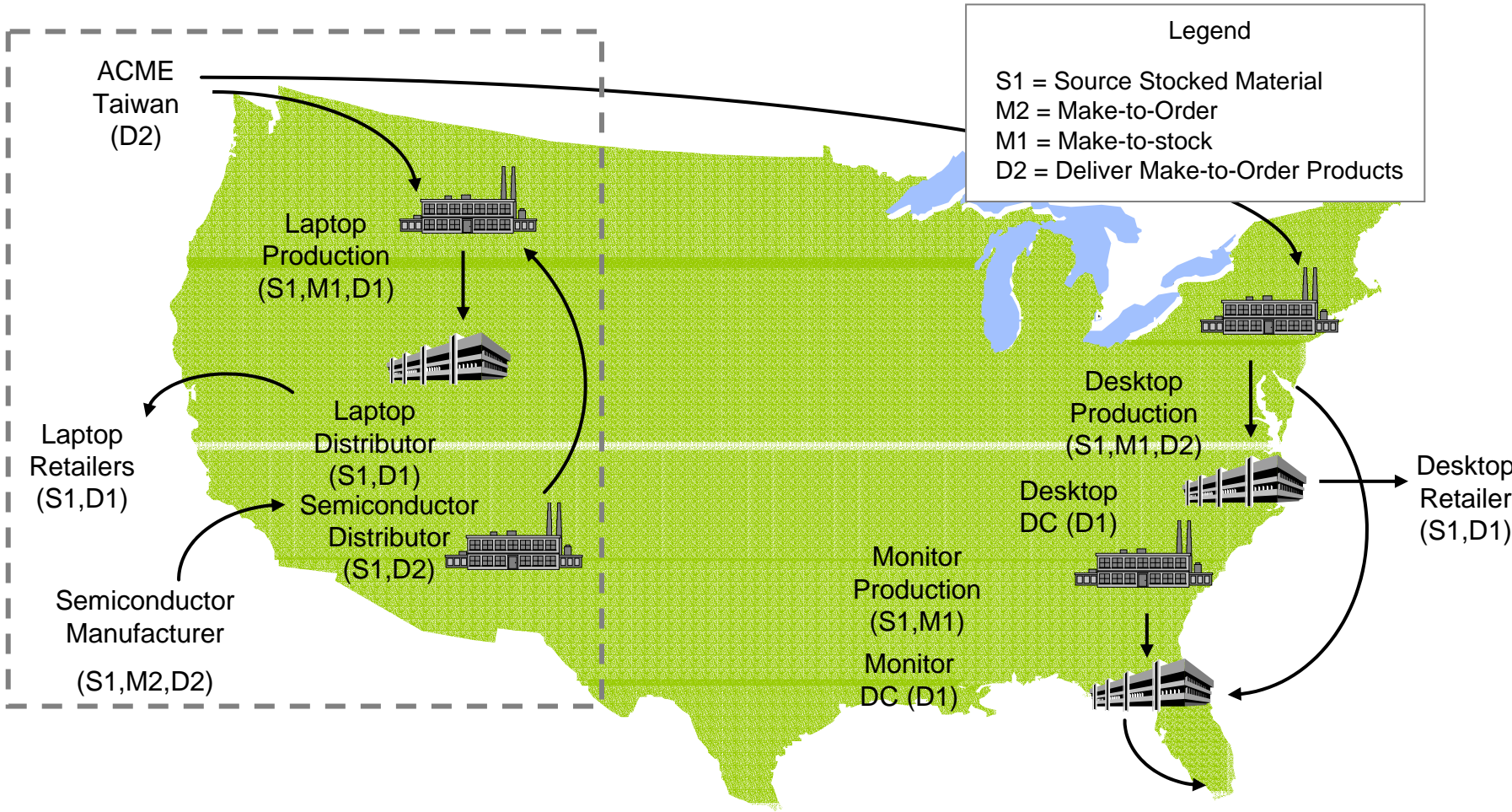
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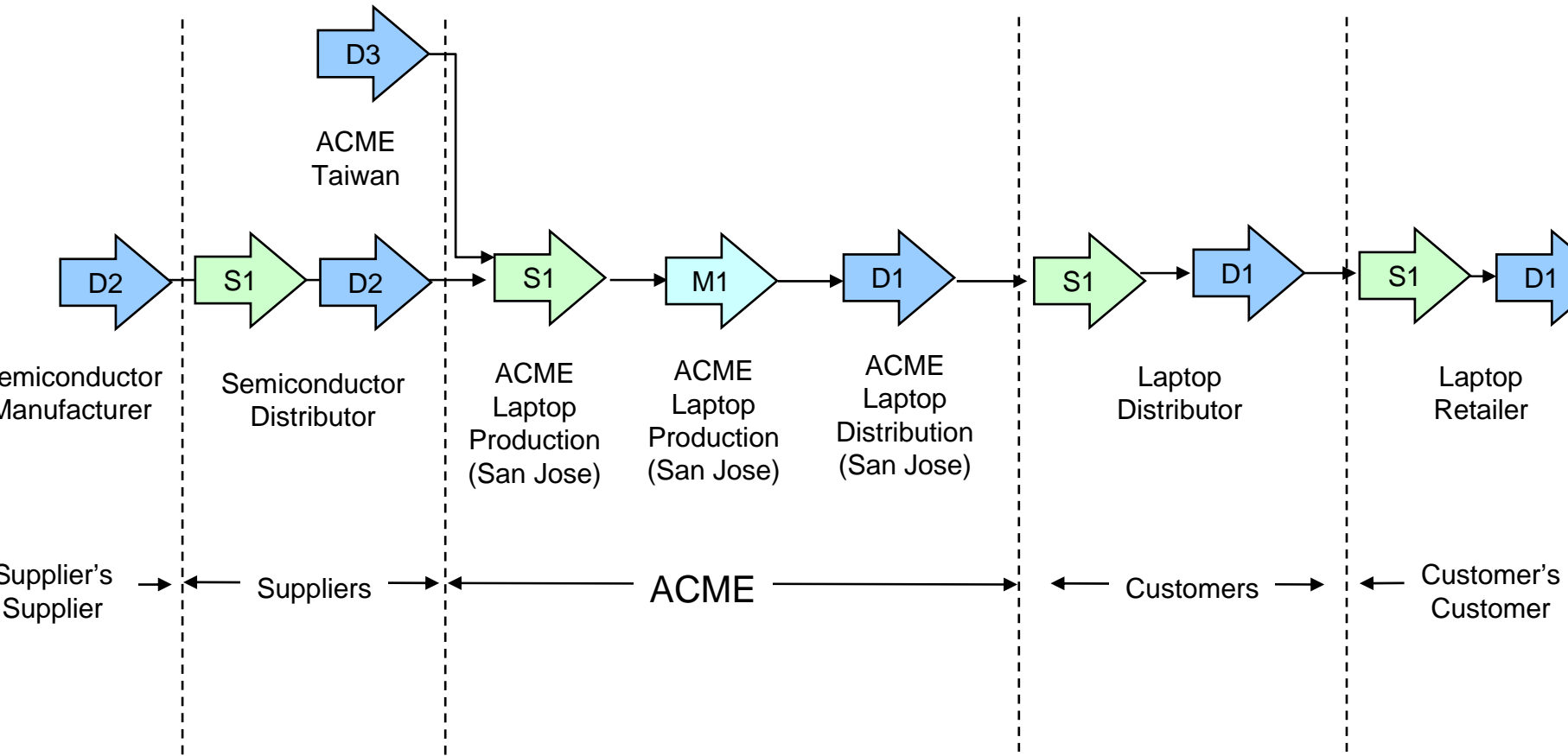
# - AS-IS



# - AS-IS



# - AS-IS

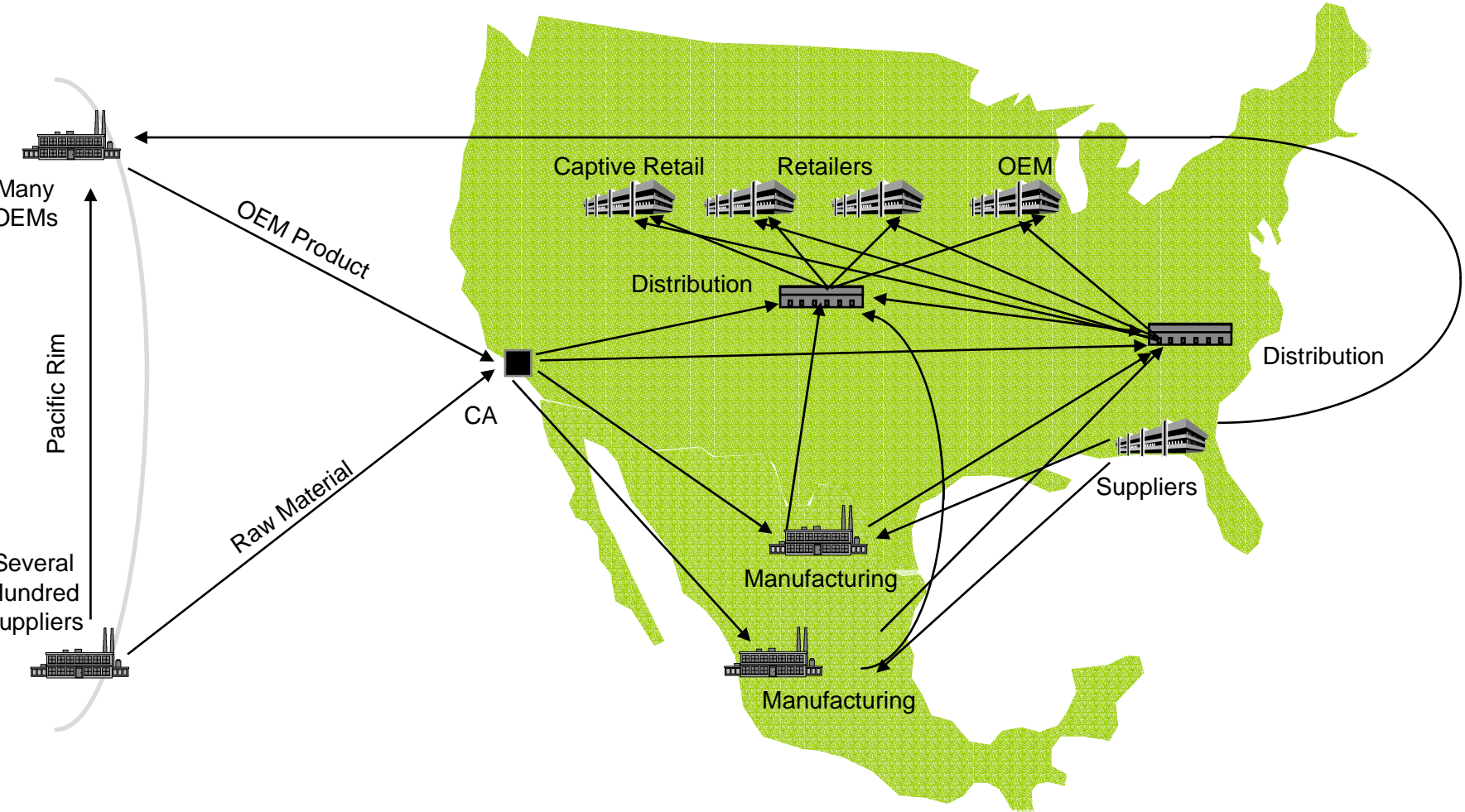


- - ' ' 50
  - 가
- - , 20% 가
  - 50 10%
  - , 70%
  - ' ,

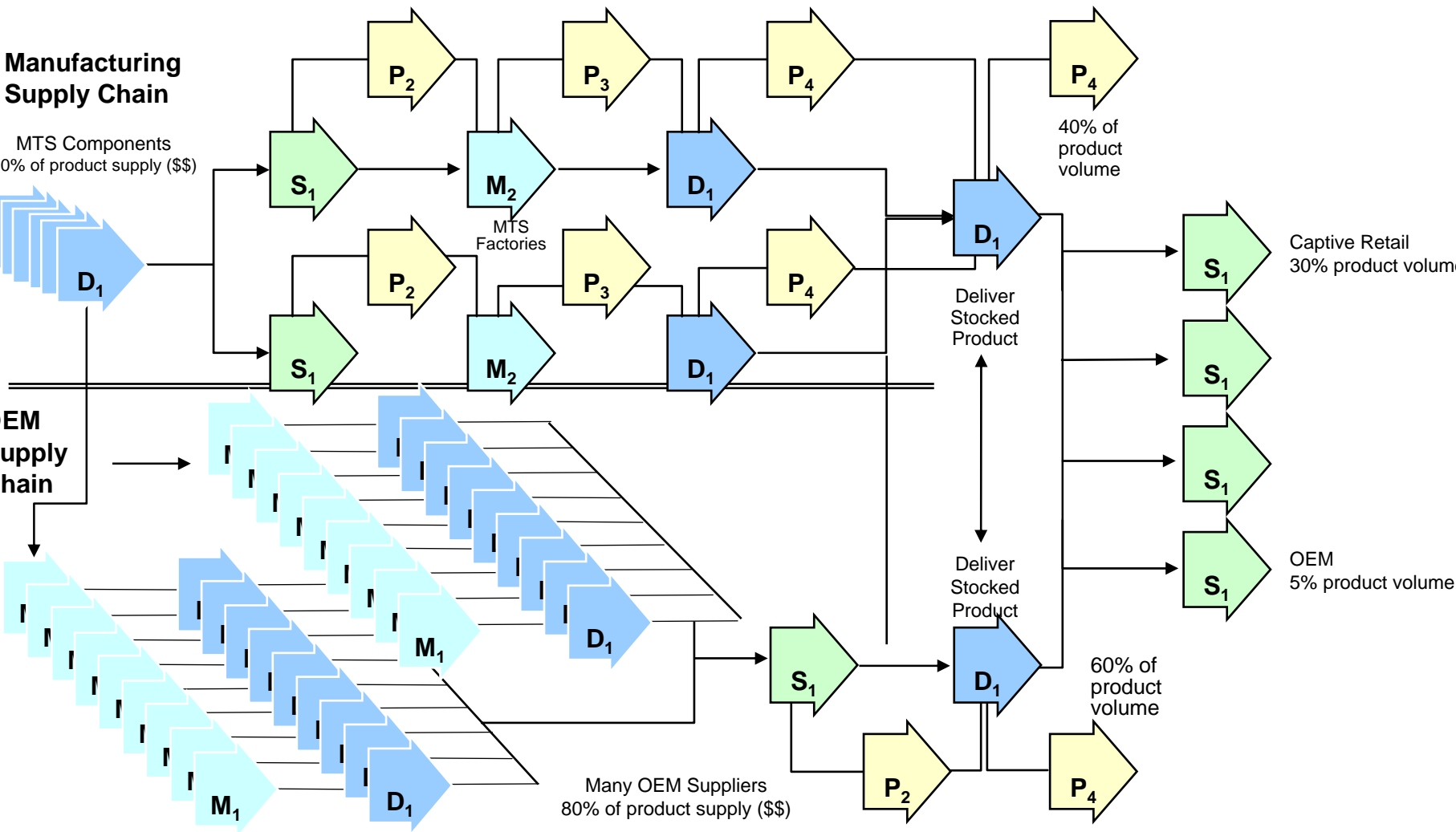
# Supply Chain Scorecard Gap

Supply-Chain Scorecard		Supply-Chain Performance vs. Competitive Population				
		0%-20% Major Opportunities	20%-40% Disadvantage	40%-60% Average	60%-80% Advantage	80%-100% Best-in-class
		■	■	xx % xx days xx %		xx % xx days xx %
			■	xx %		xx %
		■		xx days		xx days
			■	xx days		xx days
			■	xx %		xx %
		■		xx %		xx %
	가가		■	\$ xxx K		\$ xxx K
			■	xx days		xx days
		■		xx days		xx days
			■	xx turns		xx turns

# - AS-IS



# - AS-IS



# AS-IS

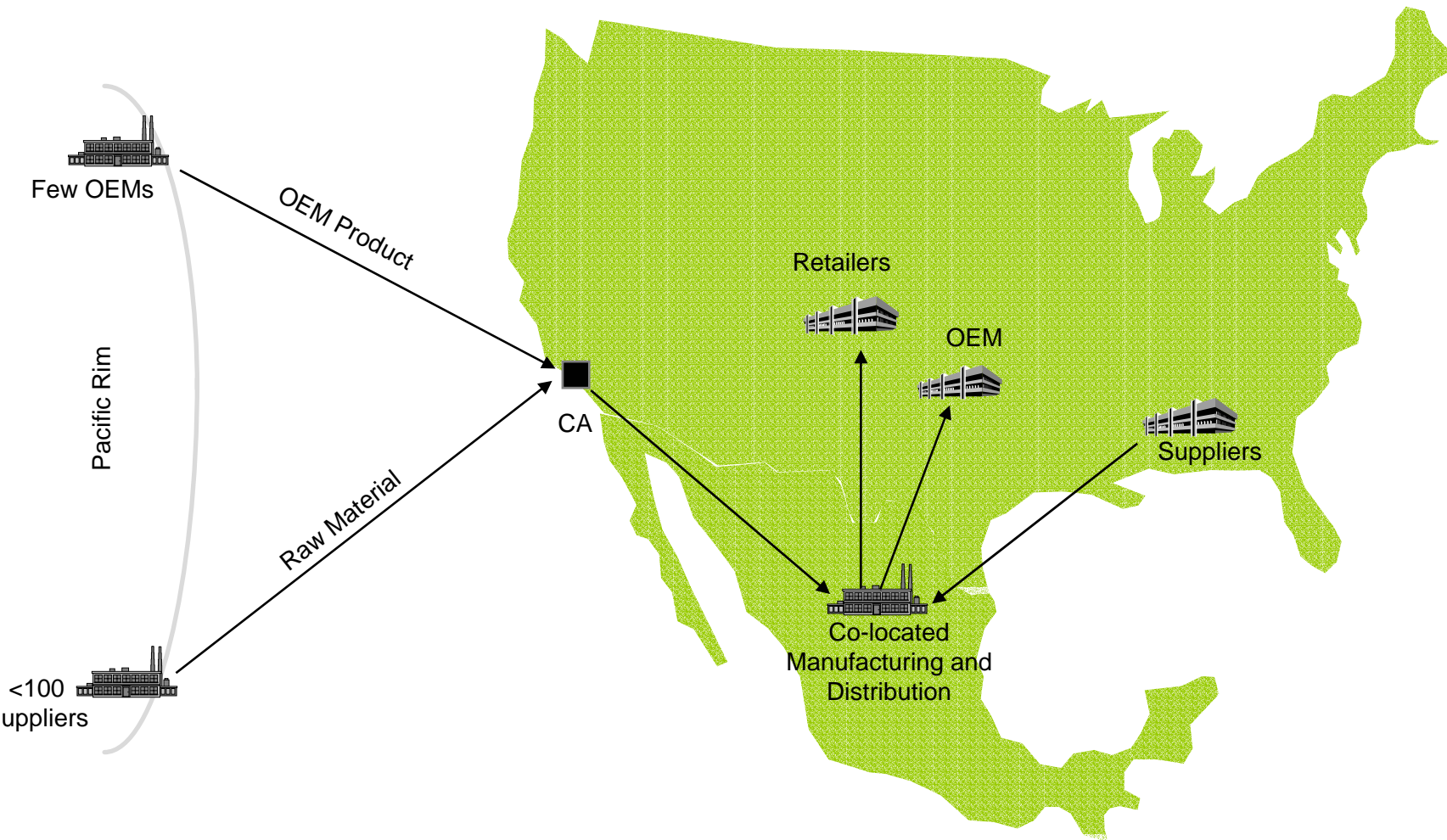
- (source)
  - OEM (S2) OEM
- (plan)
  - OEM 가
  - (P2) 가 , OEM
  - (P1) 가 (P2, P3, P4)
  - 가
- (deliver)
  - 가
  - .



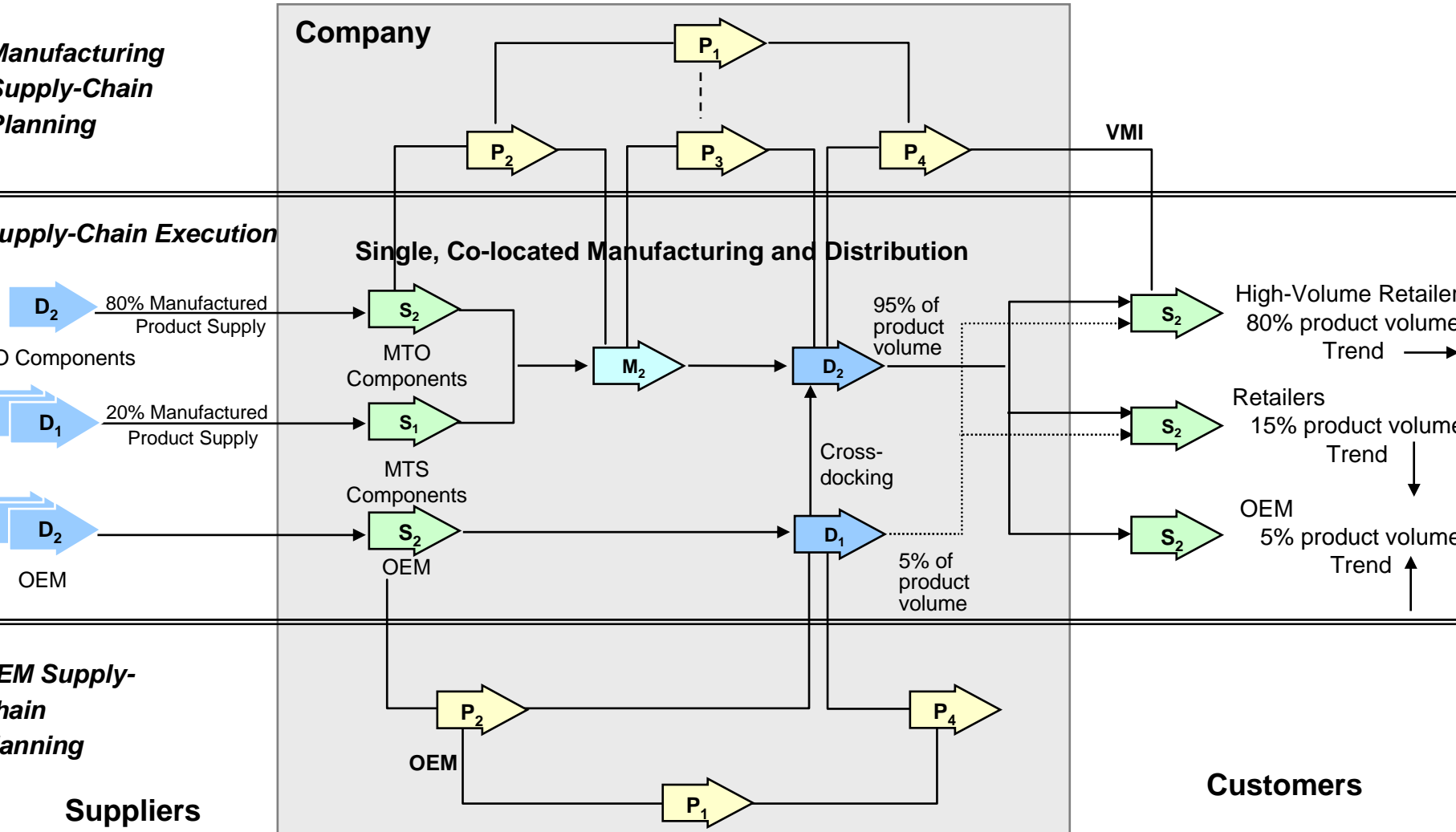
						Performance vs. Competition				
Key Supply-Chain Performance	Major Opportunities		Disadvantage	Parity	Advantage	Best-in-class				
				■	→		■			
	■	→		■						
			■	→		■				
	■	→		■						

- (source)
  - 가 (Availability)
  - (collaboration)
- (make)
  - OEM
  - , platform
  - (MTS) (MTO)
- (deliver)
  - 
  - 
  - VMI
- (plan)
  - 1
  - , / 가 ERP

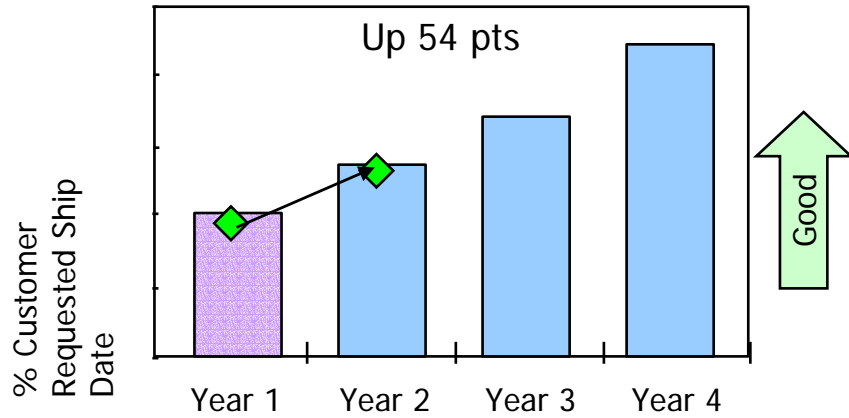
# - TO-BE



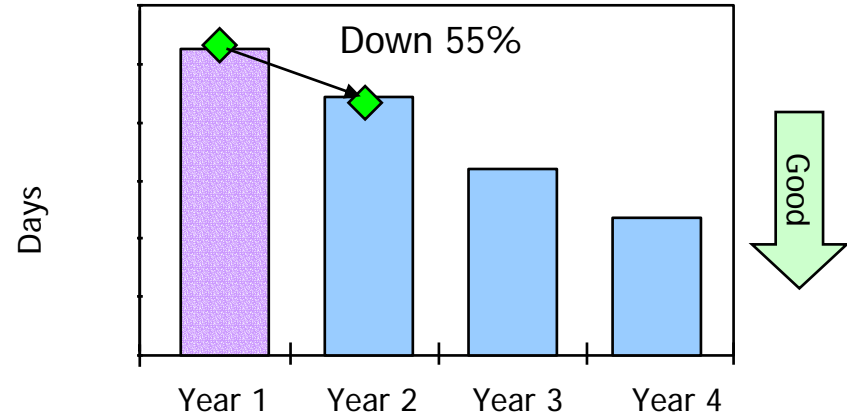
# - TO-BE



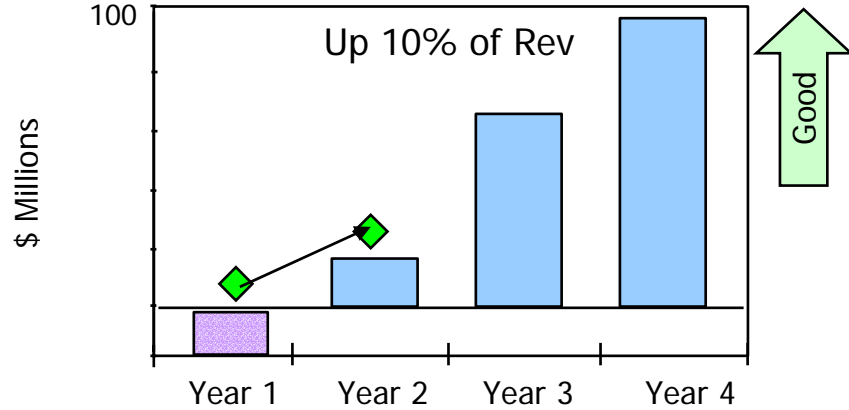
### Delivery Performance



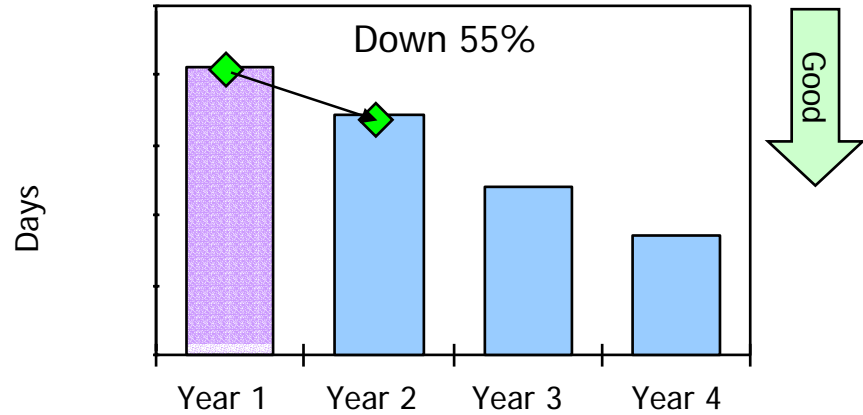
### Inventory Days of Supply



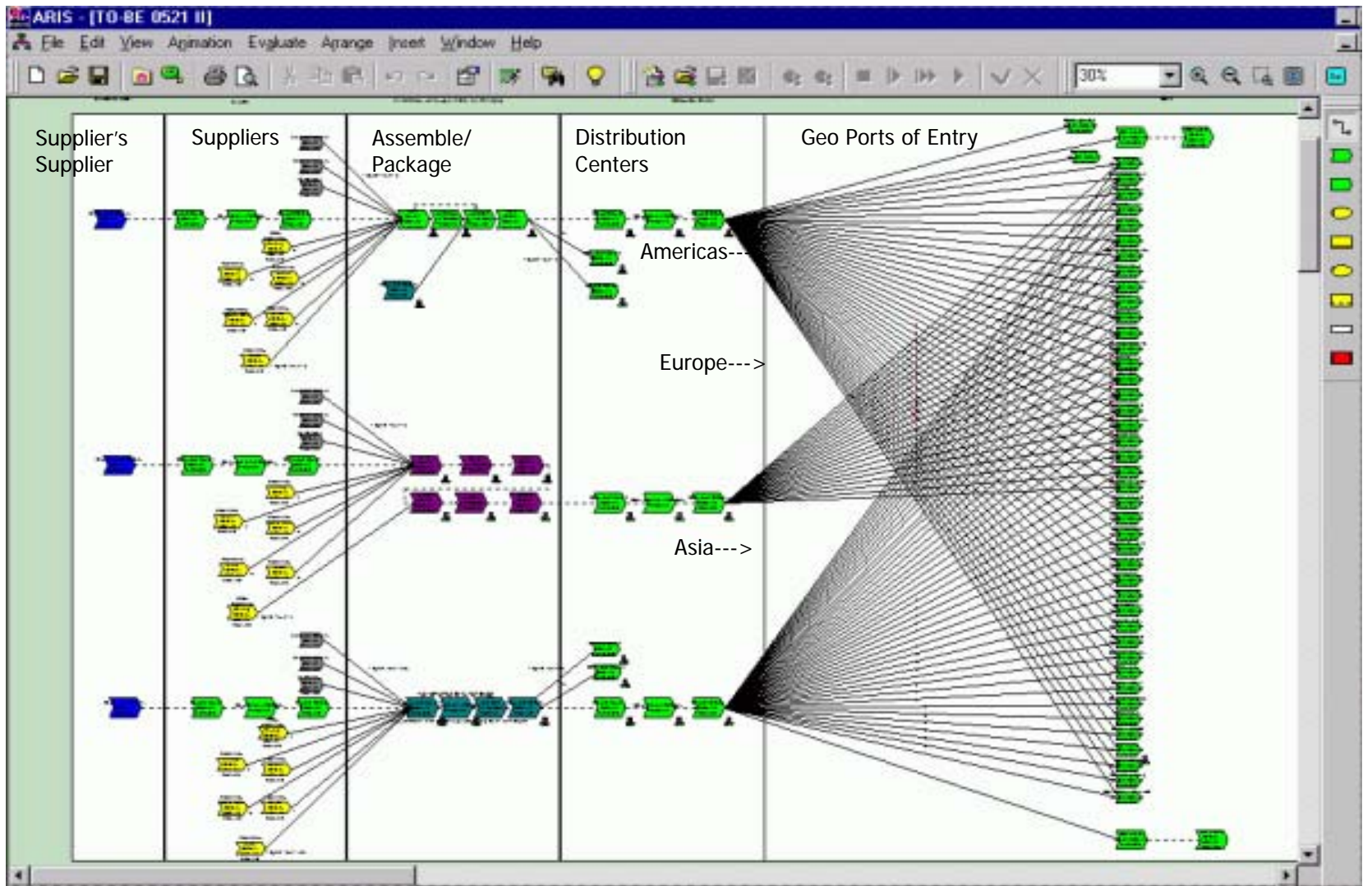
### Incr. Cash Flow from Operations

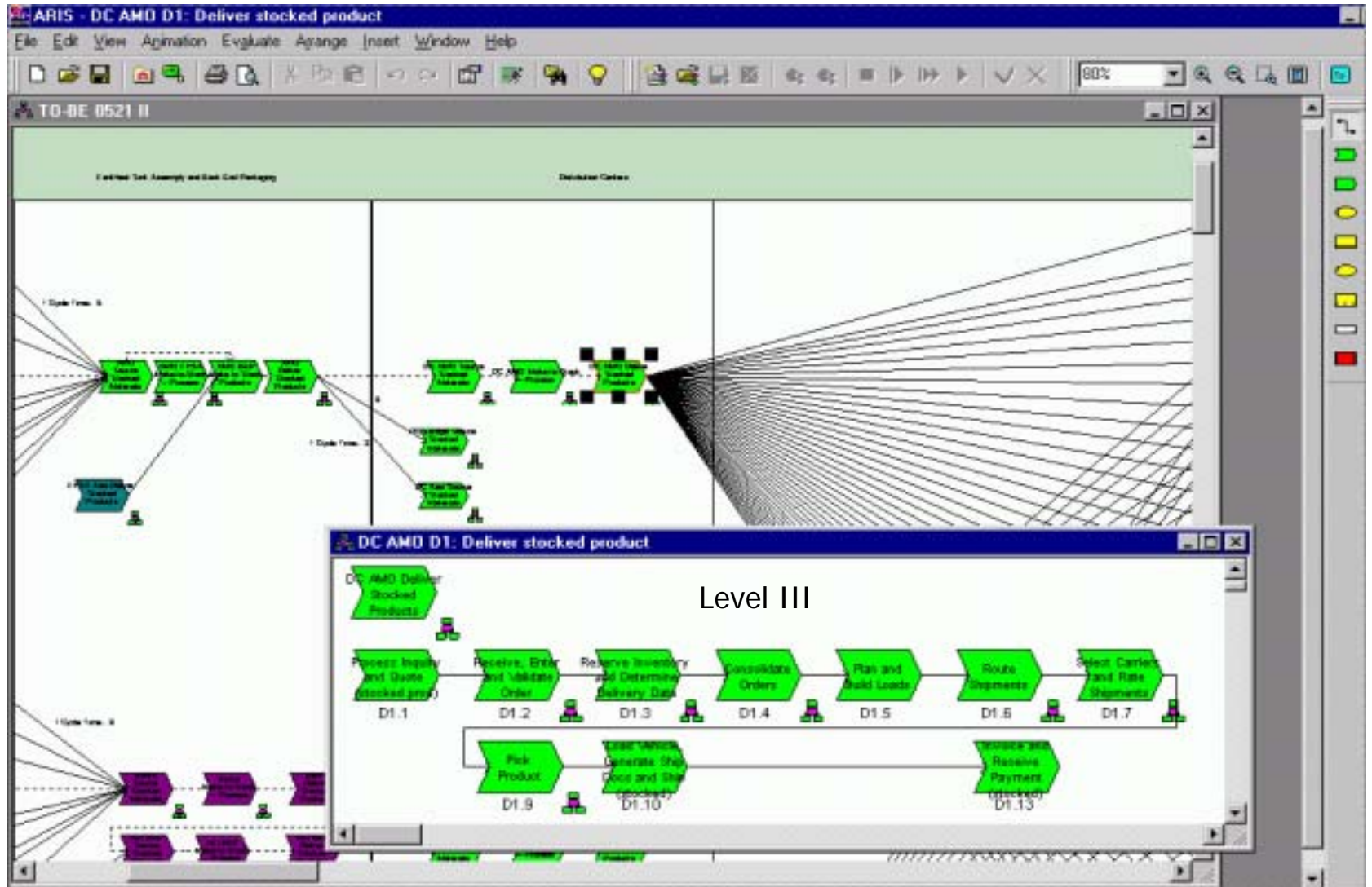


### Cash-to-Cash Intervals



- Supply Network Group
  - 
  - SCOR
  - 가 Gensym e-SCOR S/W
- SCOR
  - (KPI)
  - As-Is SCOR
  - 
  - To-Be SCOR 가
- SCOR
  - : 56 4
  - : 90% 97% 가
  - : 770,000 440,000



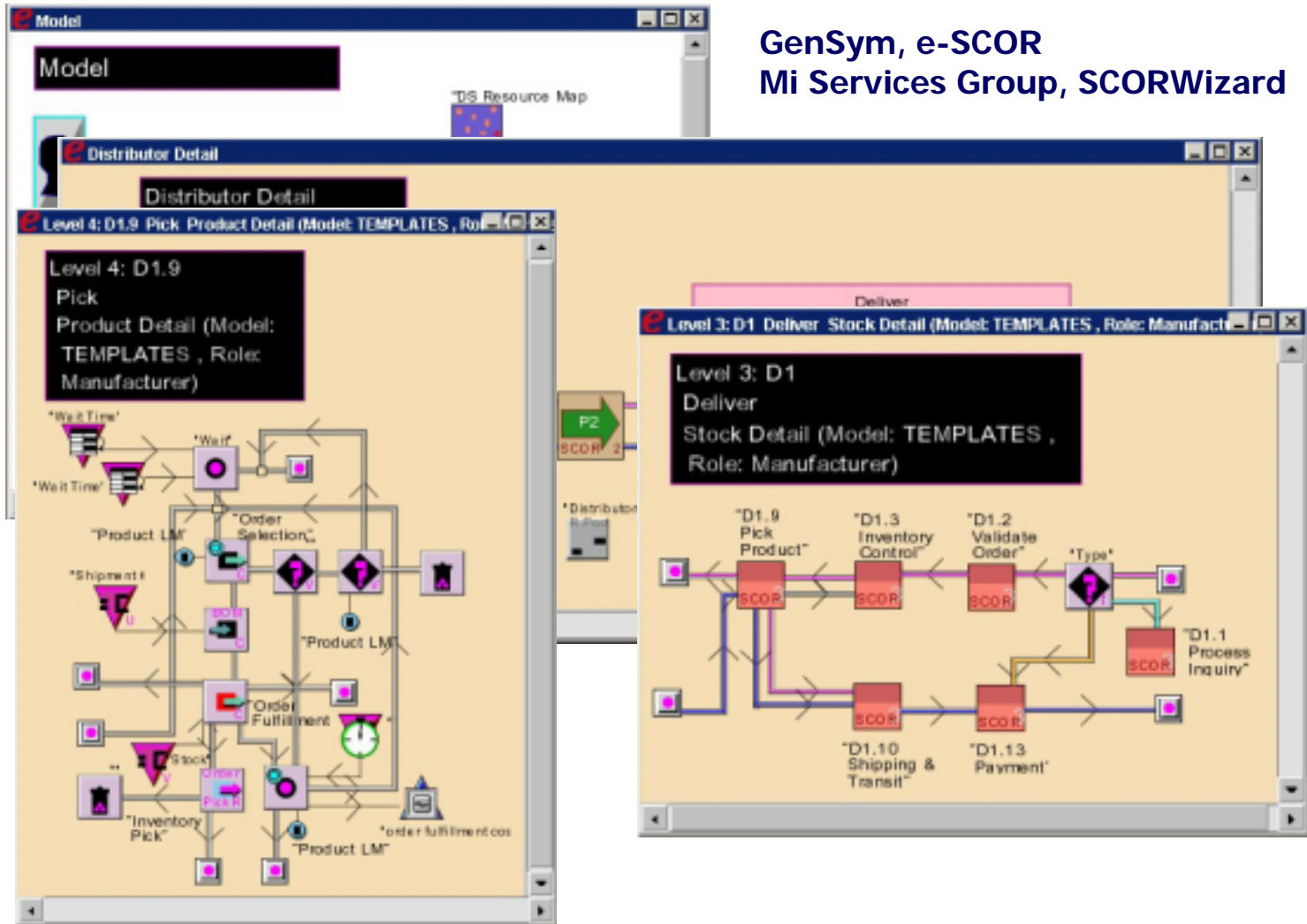




# SCOR

– S/W

GenSym, e-SCOR  
Mi Services Group, SCORWizard



# SCOR

- Alcatel
- AT&T Wireless Services
- Avnet IMS
- Boeing
- Borden Chemical
- Carter Holt Harvey
- Charoen Pokphand Group
- Coca-Cola
- Compaq
- Daimler Chrysler
- Fonterra Co-Operative Group
- Gensym Corp.
- Gist Ltd.
- Greene, Tweed & Co.
- i2
- IBM
- ICI
- Imation
- Intel Corporation
- Keuhne and Nagel Management AG
- Lockheed Martin
- Logistics Management Institute
- Mead Johnson
- Nabisco Inc.
- New Zealand Dairy Board
- Philips
- Pragmatek
- Queensland Rail
- Siemens
- Sonoco
- Systems Solutions
- Tilion, Inc.
- United Space Alliance
- United States Department of Defense
- US Navy
- USMC