

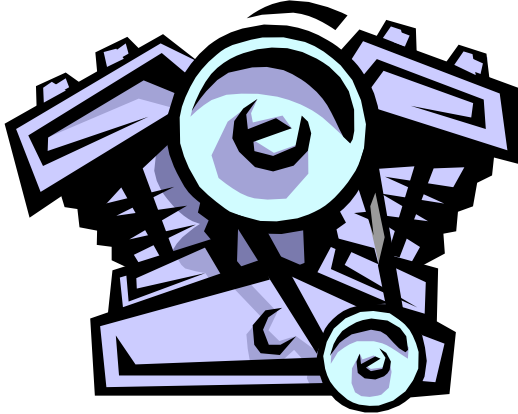
**“Automotive Supply Chain Management:
Challenges & Opportunities for Suppliers”**

***OESA Small and Medium Suppliers Council
June 8, 2004***

- The Automotive Environment in 2004
- Supplier Trends, Options, & Imperatives
- Our Perspective On Supply Chain Management
- OESA Best Practices Forum – Survey & Updates
- Supply Chain Management – Self-Diagnostics
- The Enterprise Operations Excellence Framework
- Discussion & Next Steps

- A formal alliance that unites The Whitehall Group, a preeminent management firm providing management support to companies in transition or trouble with...
- Growth Consulting, a leading operations strategy and implementation firm, resulting in...
- A premier 'Enterprise Operations Excellence' delivery capability, with nearly 100 professionals serving clients throughout North America and Europe
- Together, share an 18 year history of driving operational improvement to bottom-line results
- Industry veterans in both line management and consulting

- If you are enjoying good performance today, is there stretch in the organization to be even better?
- Is your organization's performance today what you, your shareholders, your customers, expect?
- Is there a major acquisition or project at one of your divisions/plants, customers, or suppliers that is key to your success this year?
- Is there an underperforming division/plant, customer, or supplier that can benefit from our assistance?
- What can we do to help you shift gears, change the operating expectations and results from good to great?



Globalization and Chronic Over-capacity

Economic Cycles

Increasing Customer Demands

Product Life Cycle Compression

E-Business

Shareholder Value and Growth

Government/Industry Regulation

- Over capacity and segmented rationalization
- Regional and Global Shift – Segmented Capacity
 - Segmented OEM capacity
 - Suppliers must leverage local supply base
 - Suppliers close gaps with contiguous facilities
- Many suppliers strategically plan to provide high value-added assemblies, modules & systems
- “Identity Crisis” - Who am I, What am I?
- The Supply Chain Has “Moved Up A Notch”
 - Significant technical engineering and investment assistance required to meet OEM demands

The Supply Chain Moves Up A Notch

Responsibilities	1985	2000	2010
Platform Design	Regional OEM	Regional & Global OEMs w/Partners	Global OEM w/Partners & Suppliers
Component/Module Design	Regional OEM	OEM & Tier 1 – 3 Suppliers	Tier 1 – 3 Suppliers
Component/Module Production	Regional OEM & Tier 1 – 3 Suppliers	Tier 1 – 3 Suppliers	Tier 1 – 3 Suppliers

Note: Honda, Toyota, and Nissan are exceptions with certain companies

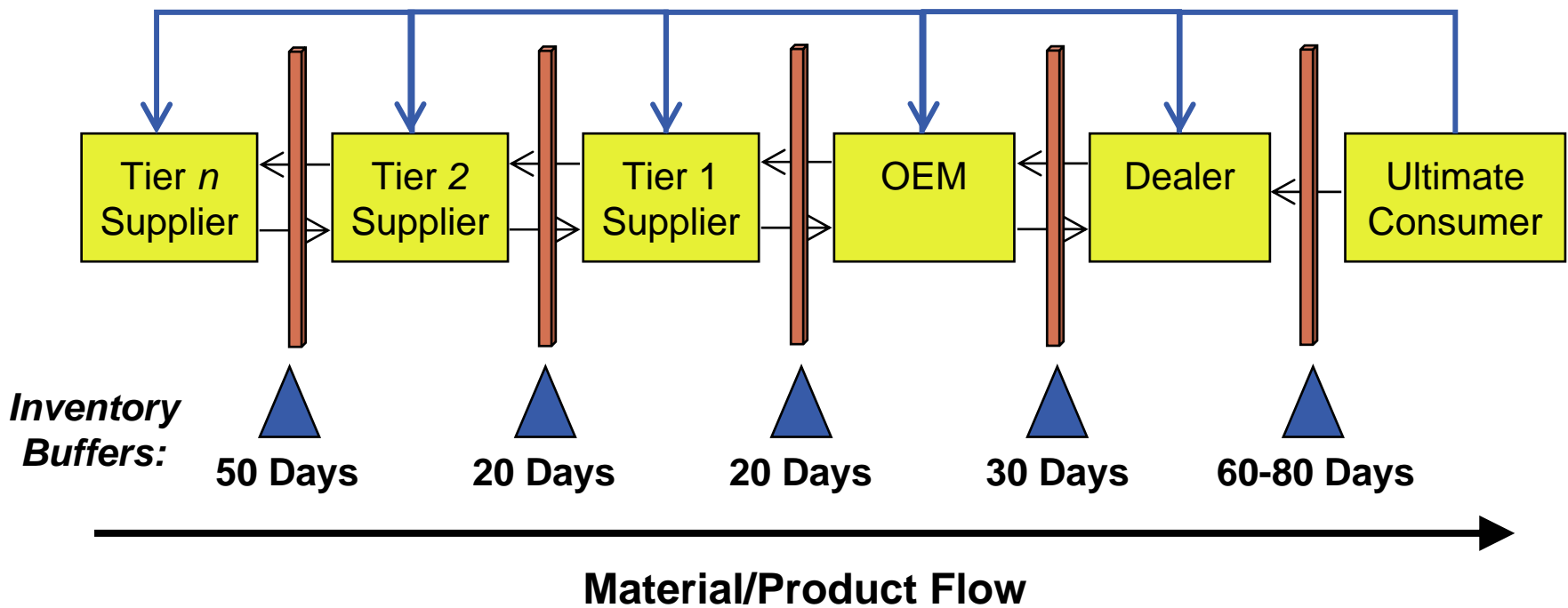
- Evaluate current and future product lines against strategic planning and business objectives
- Stay apprised of potential growth segments within the industry & broaden customer base
- Establish OEM Partnerships versus Contract (Japanese/German model)
- Further up-stream integration in OEM program development process
- Utilize relationships with suppliers to gain competitive advantage in areas of new product and process technology

- “Challenge Everything” about your organization
- Get the Entire Organization focused on “Clearly Defined and Easily Measured Objectives”
- Install, manage and communicate through a “Daily Metrics” reporting system
- Manage the business in a “War Room Environment”
- Improve structural cost base (operations, quality, cost, etc.), “Enterprise Operations Excellence”
- Chart, understand, manage and challenge the “Entire Supply Chain”

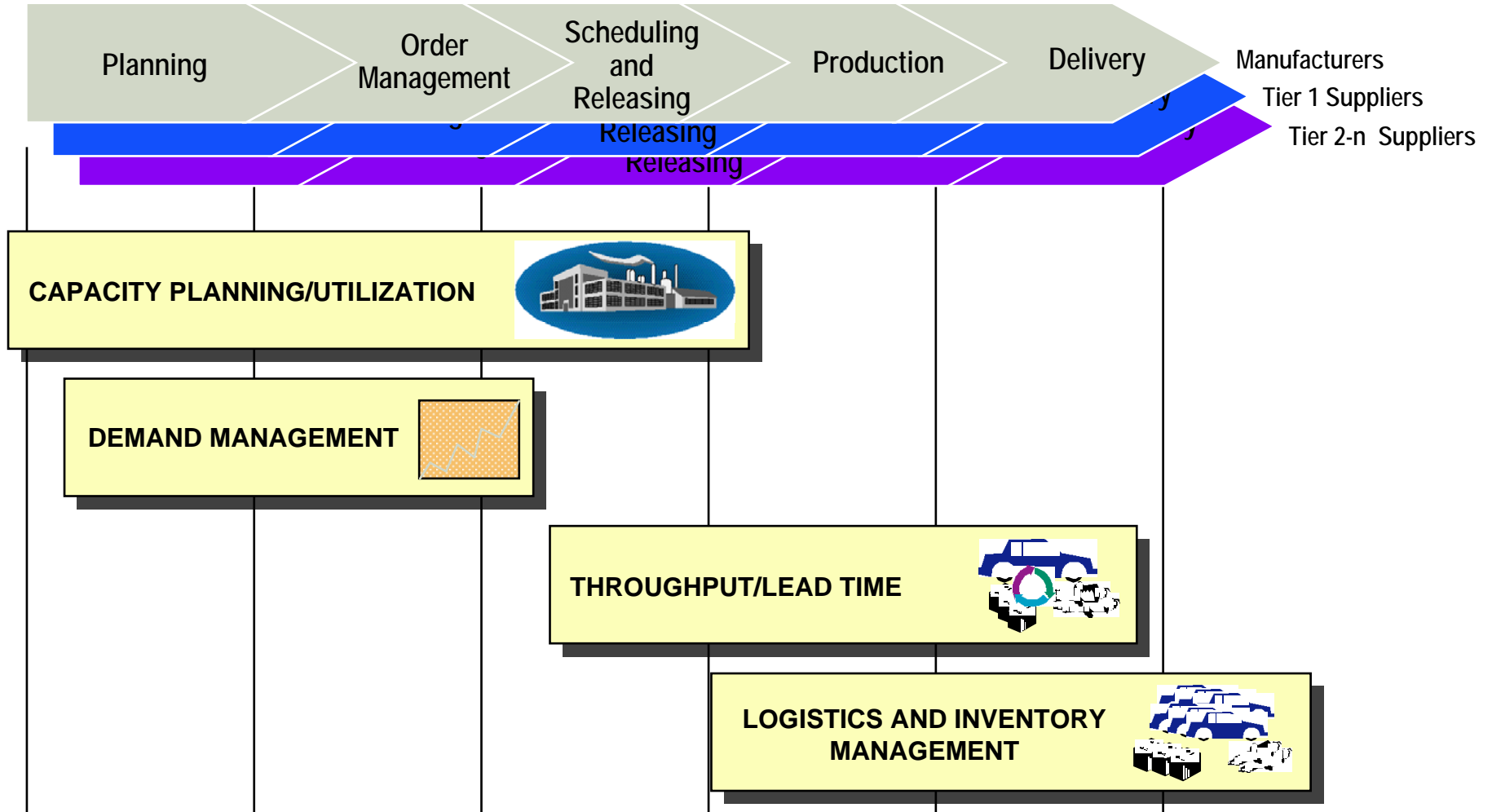
Supply Chain Inventory – From Raw Material to Ultimate Consumer

The current supply chain model features **Sequential Information Flow, Inventory Buffers, and a 180-200 Day Cycle Time** from raw material to ultimate consumer

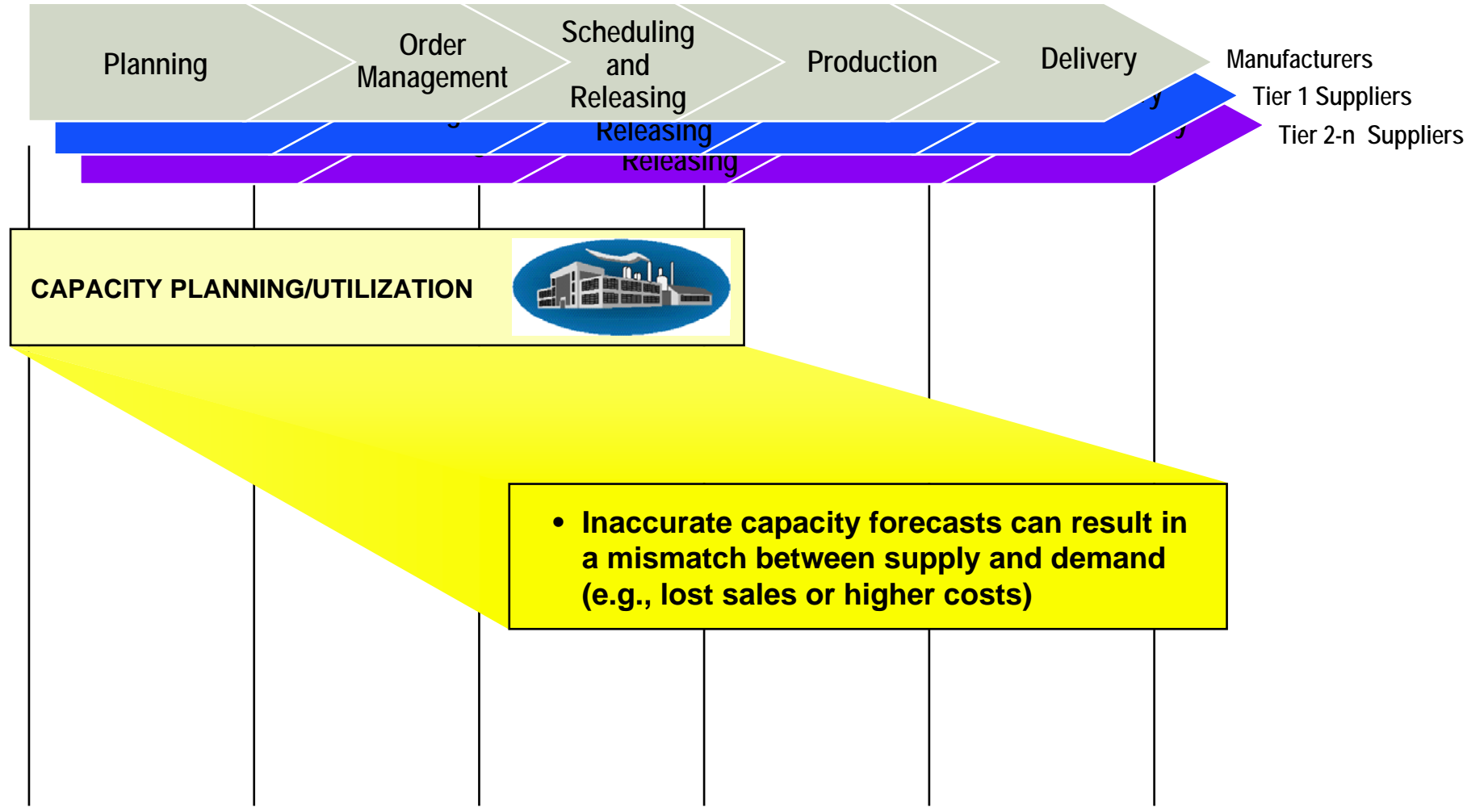
Information Flow (Demand/Forecast)



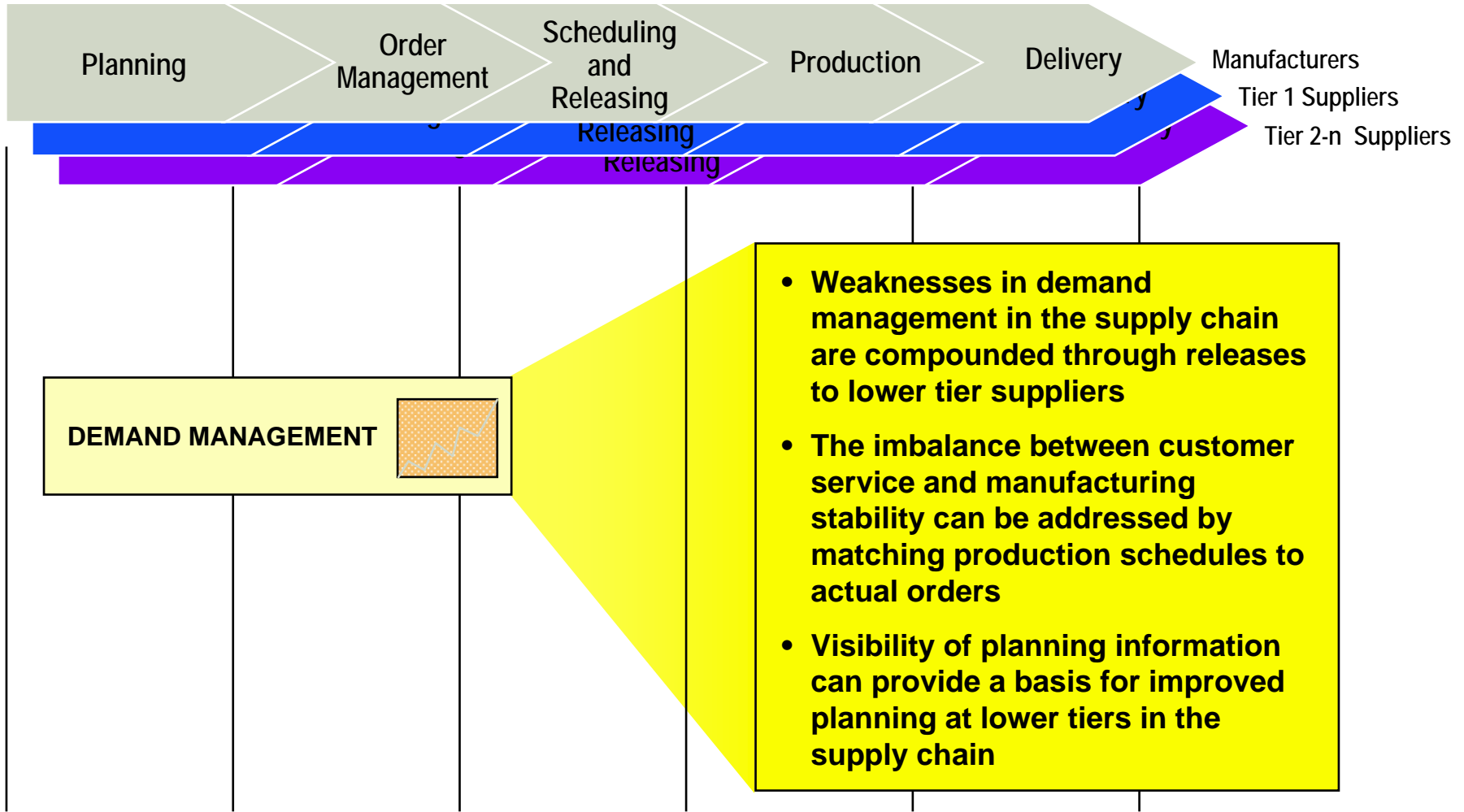
Significant Issues Span the Entire Order-to-Delivery Process



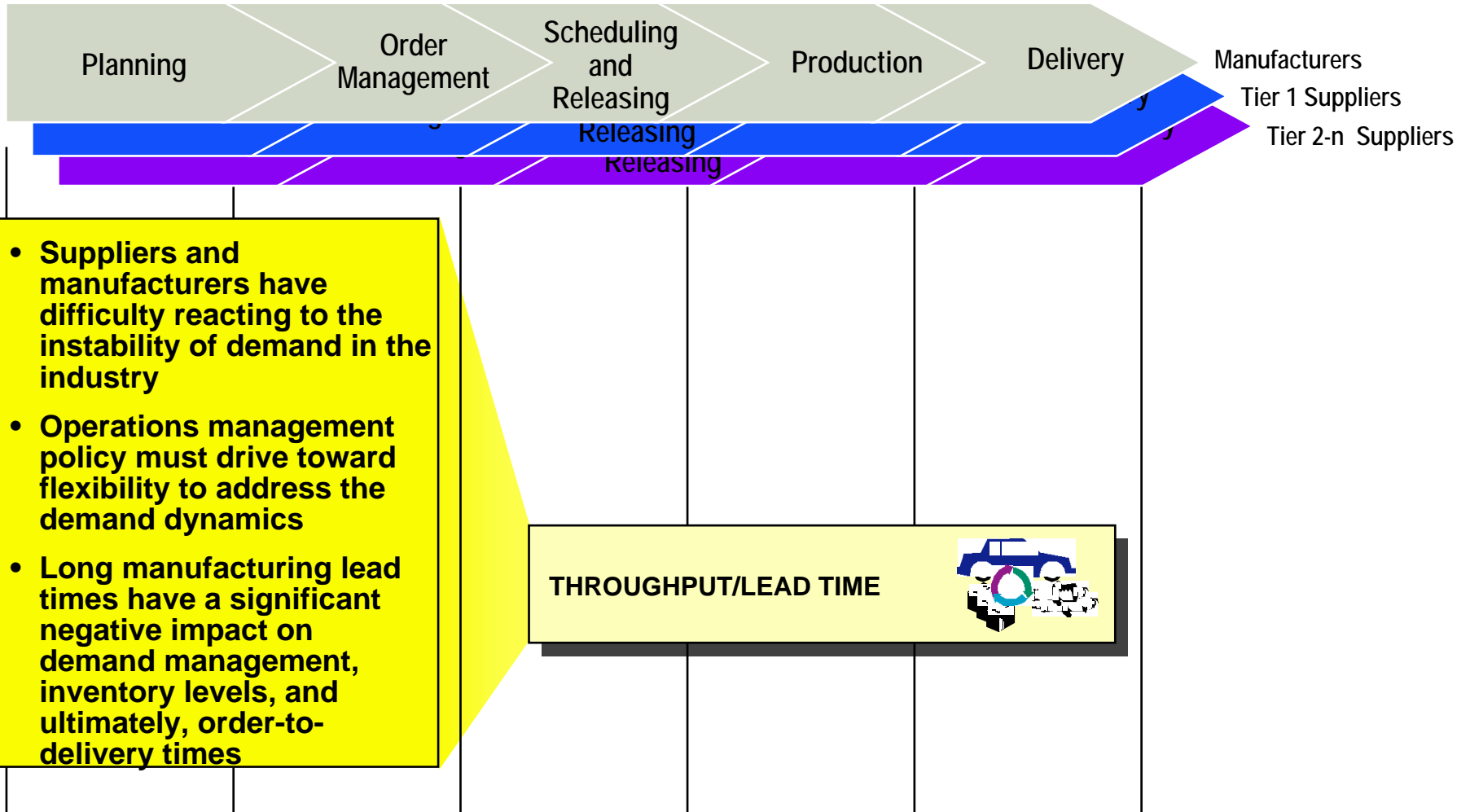
Capacity Planning & Utilization Set the Foundation for Supply Chain Management



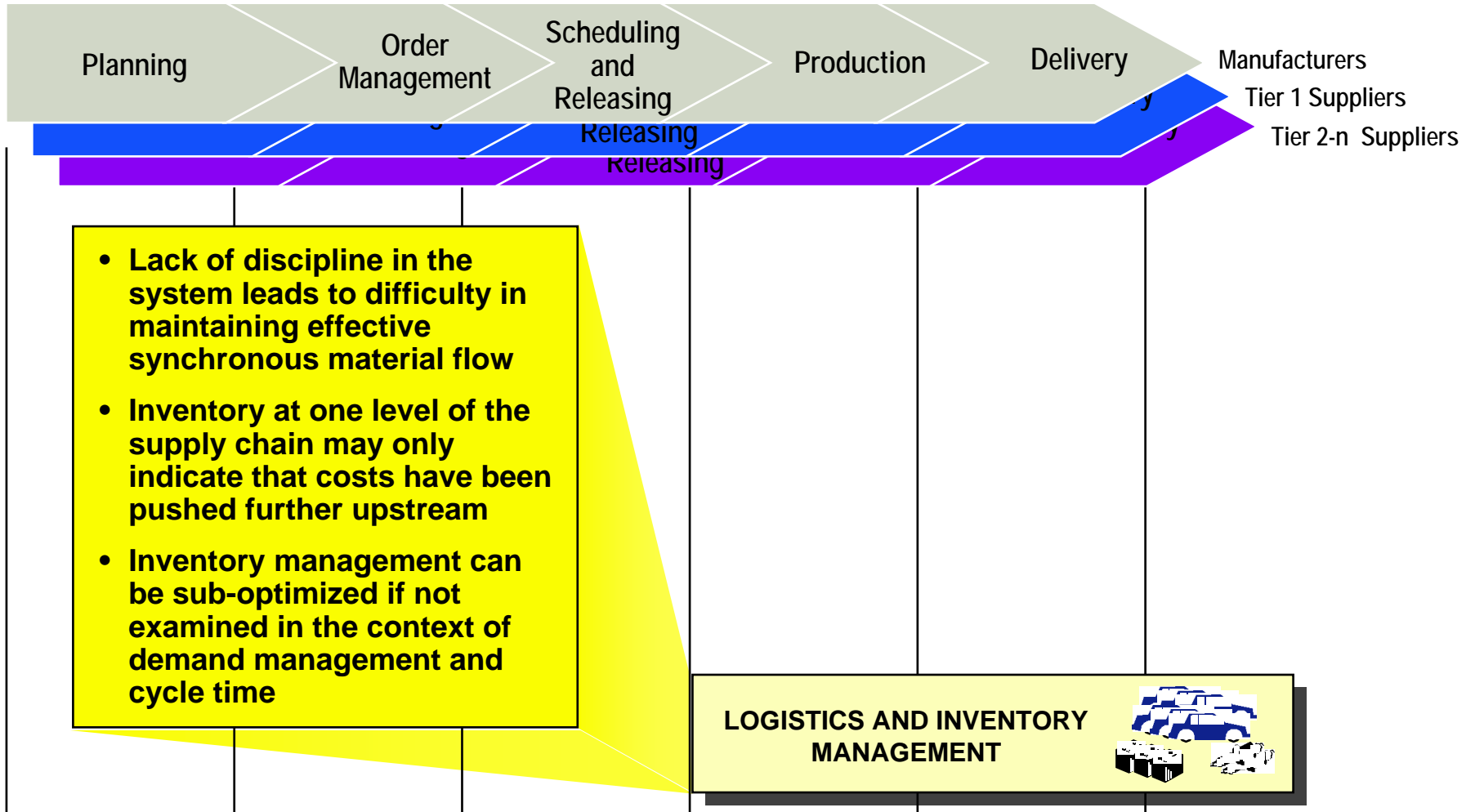
Weak Linkage in the Supply Chain Driven By Upstream Demand Management



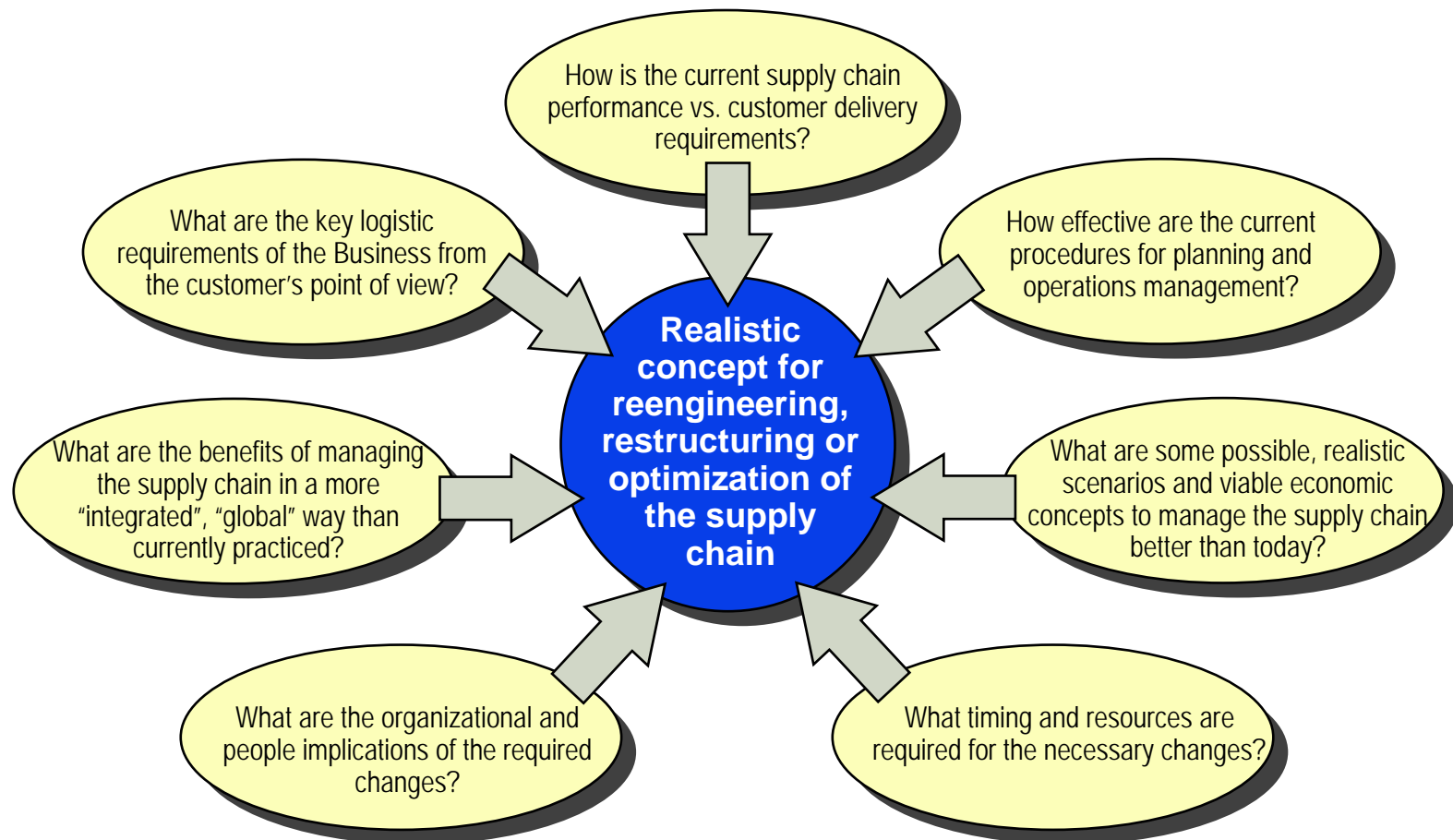
Flexibility Can Ease the Impact of Other Supply Chain Issues



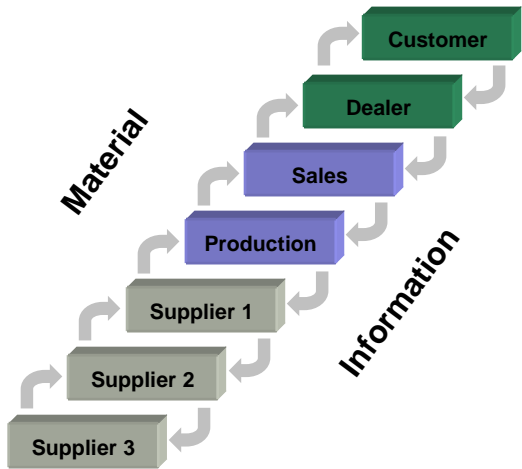
Inventory Can be a Measure for Effectiveness of the Total Supply Chain



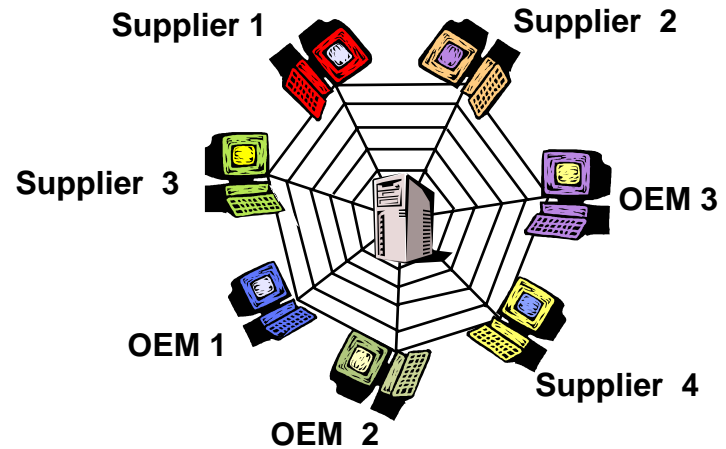
Seven key questions need to be addressed for the overall optimization of the business supply chain



Today's Supply Chain



Tomorrow's Supply Community



We see a continuing need to make the Supply Network a reality

- Over 90% of the companies surveyed believe a large opportunity lies in Supply Chain Management
- Only 10 % of the companies surveyed have a formal SCM program, metrics, goals and a management structure in place
- Best practices SCM companies have realized over 10% savings in total material and operating costs
- On average, SCM strategies have been 43% completed, with less than 20% actually implemented. Best Practice is 100%.
- 69% of participants only provide, at best, verbal encouragement to their suppliers; best practice is total participation in the SCM process with their suppliers

- Half of the participants were piloting or planning to use Covisint to support their SCM strategy
- With the demise of Covisint there is no Industry wide initiative and thus there has been fewer SCM initiatives and less coordination among OEM's and suppliers
- Participants report that a lack of funding and uncertainty of ROI are the top barriers to implementing a web-based SCM strategy
- While few of the participants have implemented Oracle, Adexa/i2 or Manugistics, 90% have implemented EDI/XML and 20% SAP
- Currently, the primary activity is browser-based access to demand information; plans exist to integrate legacy systems and build e-Hubs in the next 12-24 months

- Forrester predicted that by 2010, 21% of vehicles sold in U.S. will be Build-To-Order. Accurate demand release information is a key enabler for BTO to advance.
- Inventory levels in the system (200 days) has not changed in yrs
- Most suppliers believe Toyota is leading the race to B-T-O; Ford, BMW, and DCX are considered fast followers
- Only 1/3 of the supply base has some sort of B-T-O initiative
- Only 8% of participants are receiving demand releases in real time – the majority receive information on a daily basis
- Few participants have implemented internet based communication of demand release information through the SCN

Supply Chain Management - Self-Diagnostic Survey

Overall Supply Chain Objectives

8 Questions & 12 Metrics

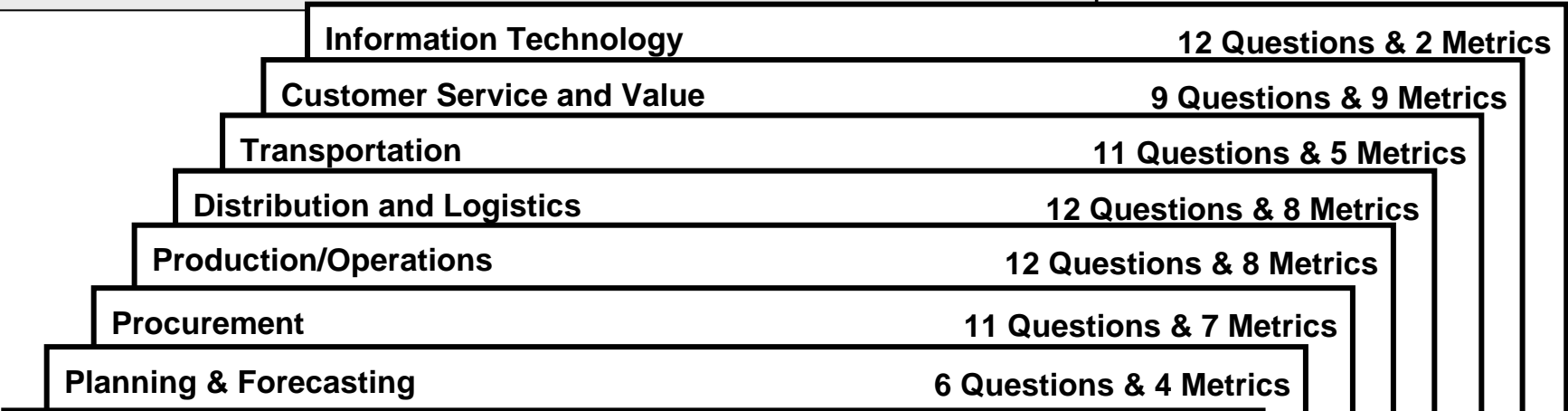
Please circle one number from the range in the column to the right of each query.

NOT
AT ALL

TO A VERY
GREAT EXTENT

1.	Our supply chain strategy is aligned to support our overall business strategy.	1	2	3	4	5	6	7
2.	Clear objectives have been established for our overall supply chain.	1	2	3	4	5	6	7
3.	Overall supply chain performance is measured.	1	2	3	4	5	6	7
4.	Functional barriers have been eliminated upstream to produce a seamless supply chain.	1	2	3	4	5	6	7
5.	Functional barriers have been eliminated downstream to produce a seamless supply chain.	1	2	3	4	5	6	7
6.	Alliances and partnerships have been developed with key suppliers.	1	2	3	4	5	6	7
7.	Alliances and partnerships have been developed with key customers.	1	2	3	4	5	6	7
8.	There is clear commitment from the top management to develop the supply chain.	1	2	3	4	5	6	7

Supply Chain Management - Self-Diagnostic Survey



Overall Supply Chain Objectives

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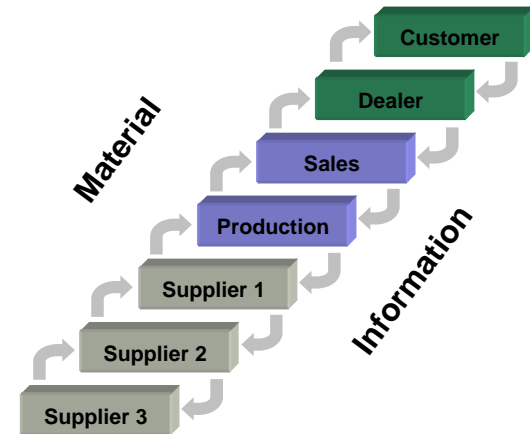
1.	Our supply chain strategy is aligned to support our overall business strategy.	1	2	3	4	5	6	7
2.	Clear objectives have been established for our overall supply chain.	1	2	3	4	5	6	7
3.	Overall supply chain objectives are clearly defined.	1	2	3	4	5	6	7
4.	Functional business processes are in place to support seamless supply chain operations.	1	2	3	4	5	6	7
5.	Functional business processes are in place to support seamless supply chain operations.	1	2	3	4	5	6	7
6.	Alliances and partnerships have been developed with key suppliers.	1	2	3	4	5	6	7
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81 Questions and 55 Metrics in Entire SCM Self-Diagnostic Survey

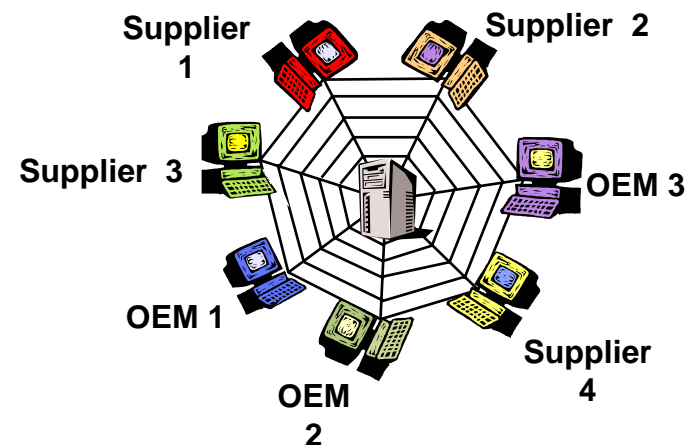
Supply Chain Management – Status Quo vs. Enabling Success

- Over Capacity vs. Commitment
- Price vs. Total Cost
- Targets vs. Metrics
- Suppliers vs. Supply Chain Management
- Releases vs. Real Time Data
- Inventory vs. JIT
- Assumptions vs. Knowledge
- Silence vs. Dialogue
- Legal vs. Logic
- Me vs. Team

Today's Supply Chain

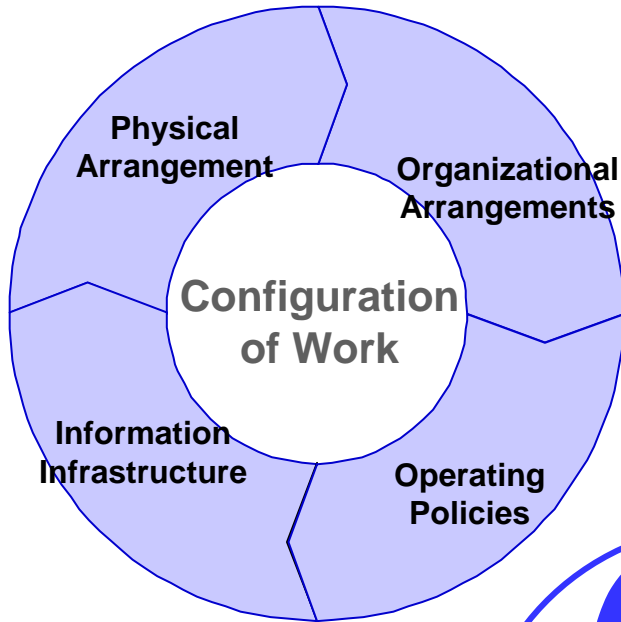


Tomorrow's Supply Community



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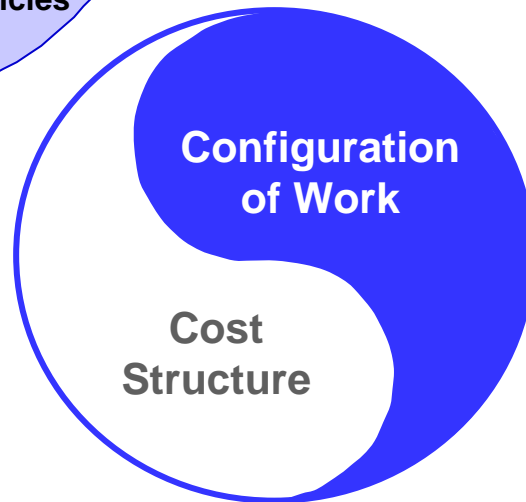
Enterprise Operations Excellence is an essential operating perspective...



All work has a “configuration” comprised of four dimensions

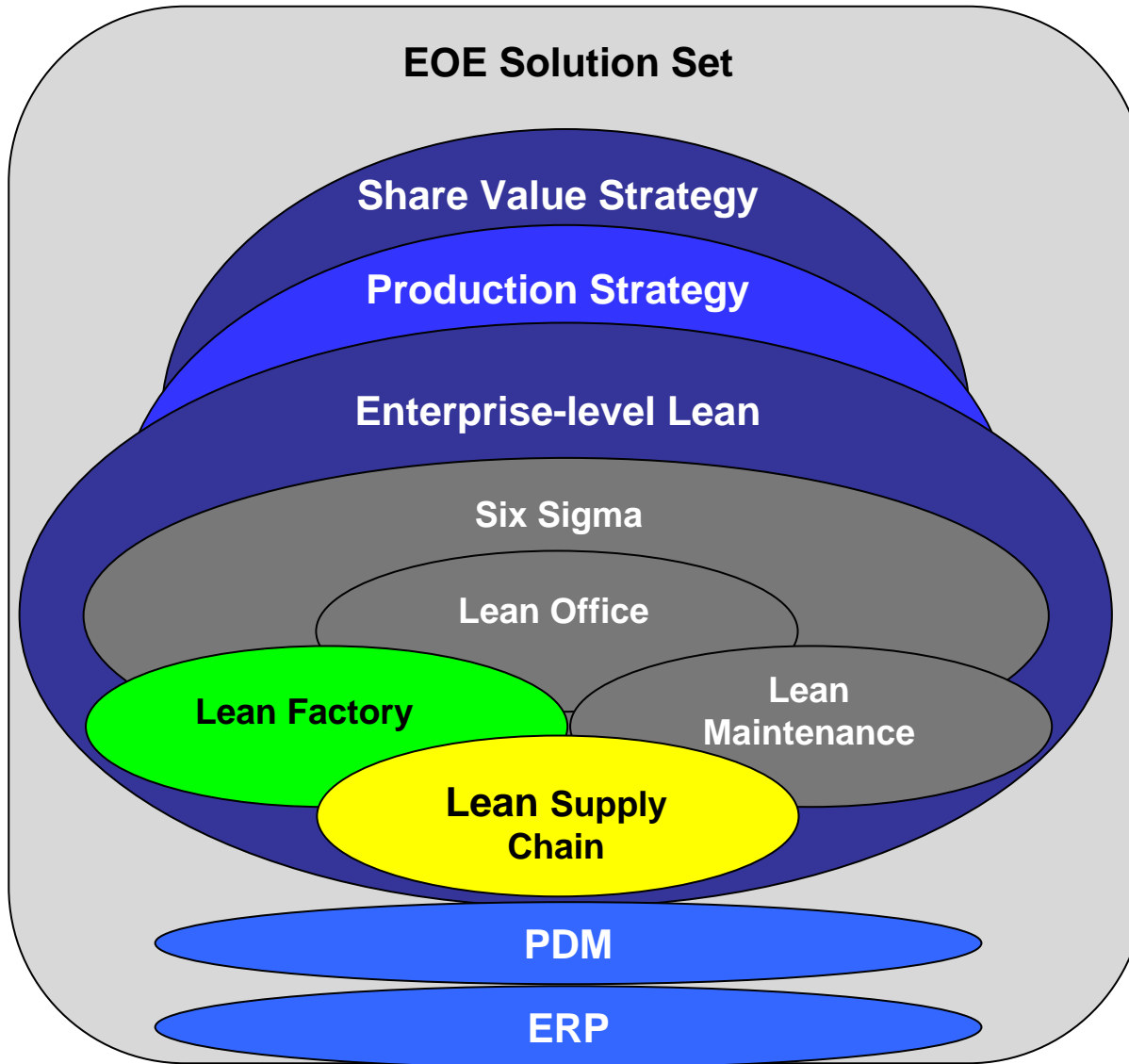
- On the nature of work
- On the relationship between work and cost
- On the best way to improve productivity
- On improving profitability
- On increasing share value

Configuration of Work is the primary determinant of cost structure



It follows that the most potent way to reduce costs is by improving the configuration of work

The Enterprise Operations Excellence Framework

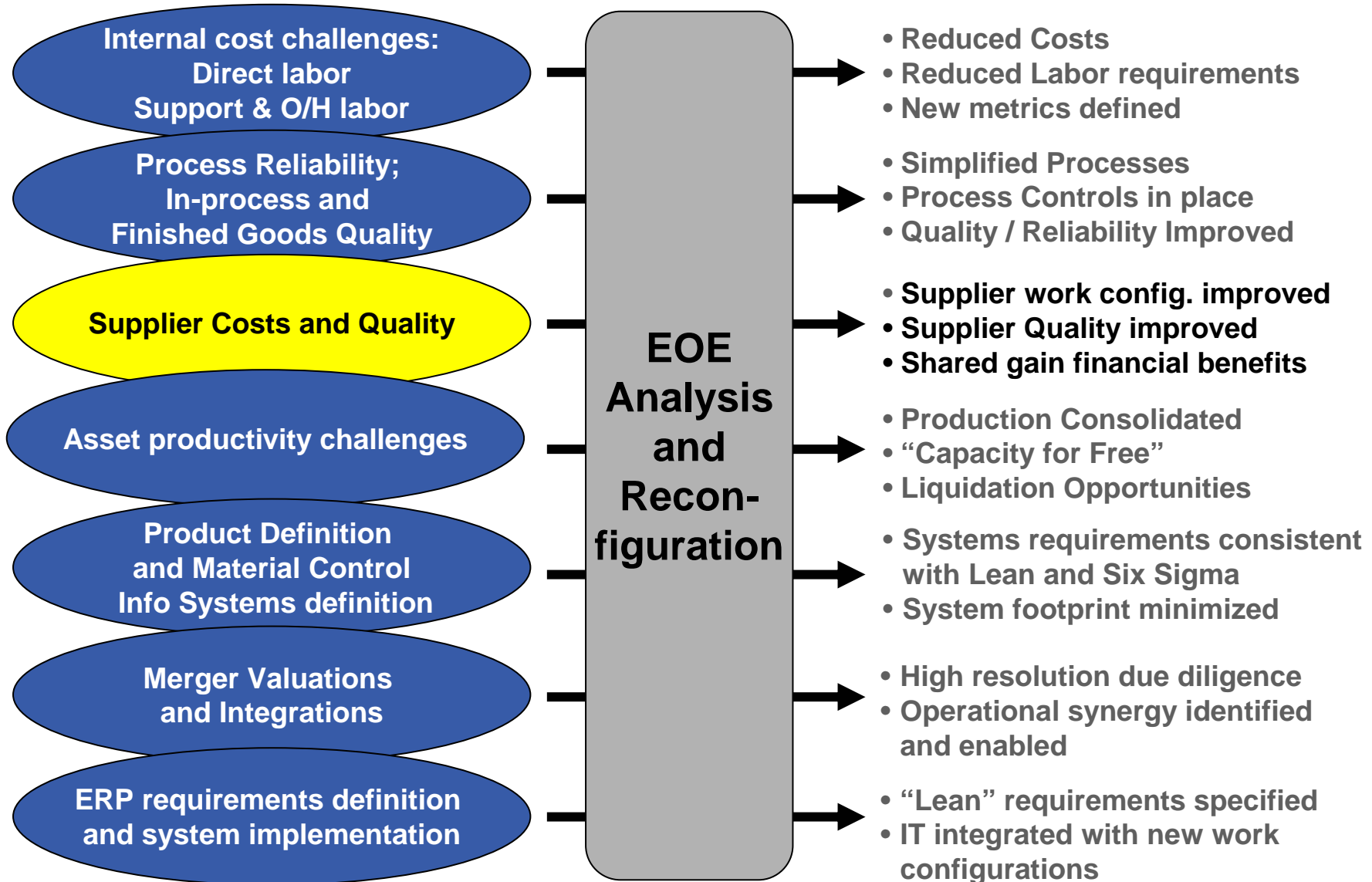


- Founded on the principles of Lean Thinking
- Enhanced with Six Sigma concepts and techniques
- Supported with info technology, when appropriate
- **Applicable throughout the Enterprise, including suppliers**
- Oriented toward business performance improvement

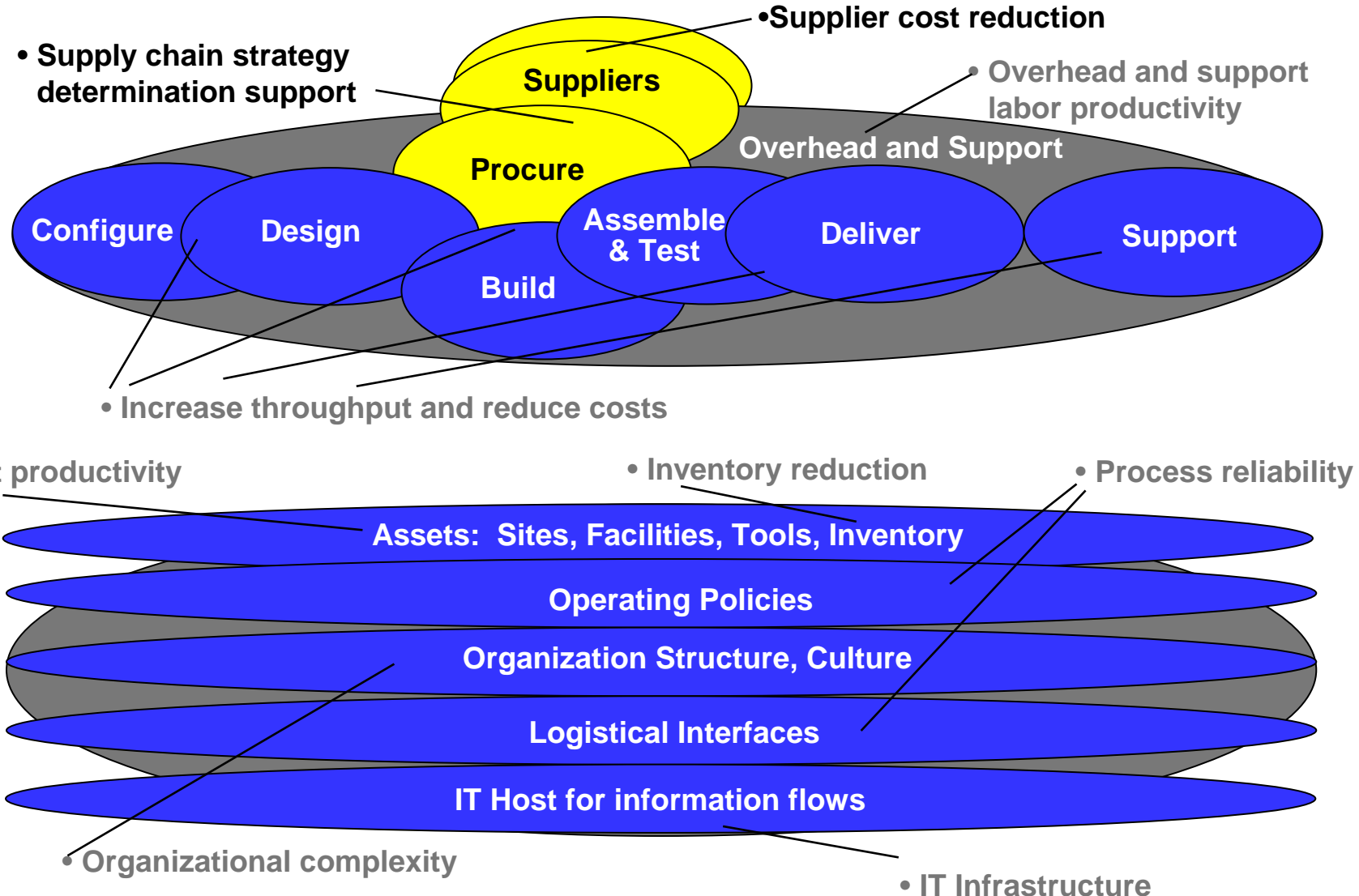
Enterprise Operations Excellence drives the financial fundamentals

Key Configuration of Work Elements	Range of Potential Improvement	<u>Conceptual Income Statement</u>		
			Pre-EOE	Post- EOE
		Revenue	100	100
		COGS		
		Direct Labor	(4)	(3)
		Support / OH Labor	(24)	(12)
Direct Labor	- 30-70%	Material	(52)	-20% (42)
		Earnings from Operations	20	+115% 43
Support / Overhead labor	- 40-80%	Taxes (.34)	(7)	(15)
Direct Material	- 20-60%	Net Income	13	+115% 28
		<u>Conceptual Balance Sheet</u>		
			Pre-EOE	Post -EOE
		Assets	100	100
Defects	- 30-80%	Cash	6	+383% 29
Inventory	- 50-80%	Accounts Receivable	30	30
Capital Equipment	- 20-60%	Inventory	20	-50% 10
Facilities	- 30-70%	PP&E	44	-29% 31
		Liabilities	100	100
		Accounts Payable	26	-50% 13
		Debt	16	16
		Owners Equity	58	+22% 71

Enterprise Operations Excellence applies to many challenges...



Setting your sights – EOE applies to a wide array of business challenges



- **EOE reduces cost and cycle time throughout the supply chain**

- EOE is effective on non-recurring, information intense activity
- EOE eases the burden of excessive Corporate overhead and SG&A
- EOE gives operational substance production strategy deliberations
- Enterprise Operations Excellence is a fact-based, accurate, and robust method for truly understanding the Configuration of Work
- Value stream analysis enables characterization of the Configuration of Work and identification of “friction” in the value stream
- Special issues analyses provide deep insight into the policies and practices that impact the Configuration of Work
- Collective analysis of value streams, and special issues, reveals the enterprise’s Configuration of Work and associated penalties

- Principal, The Whitehall Group - over 25 years experience as senior operations management in automotive and manufacturing industries
- Expertise in the areas of restructuring, reengineering, continuous improvement and supply chain management; interim CEO/President of many Tier 1's during transition to return them to profitability
- Interim COO of a \$2B Tier 1 automotive integrator in Chapter 11; Direct responsibility for all NA operations (12 plants with complete P/L, corporate staff, quality & engineering)
- Served as Managing Director at BearingPoint & Partner at Deloitte Consulting; Global Lead Partner for DCX, led global e-business supply chain initiative, leading to formation of Covisint
- VP & General Manager at Johnson Controls, Inc.
- BA Business Management & MBA from Gannon University
- Certifications from CPM (Purchasing Management), CPIM (Production Control & Inventory Management), TMA (Turnaround Management Association)