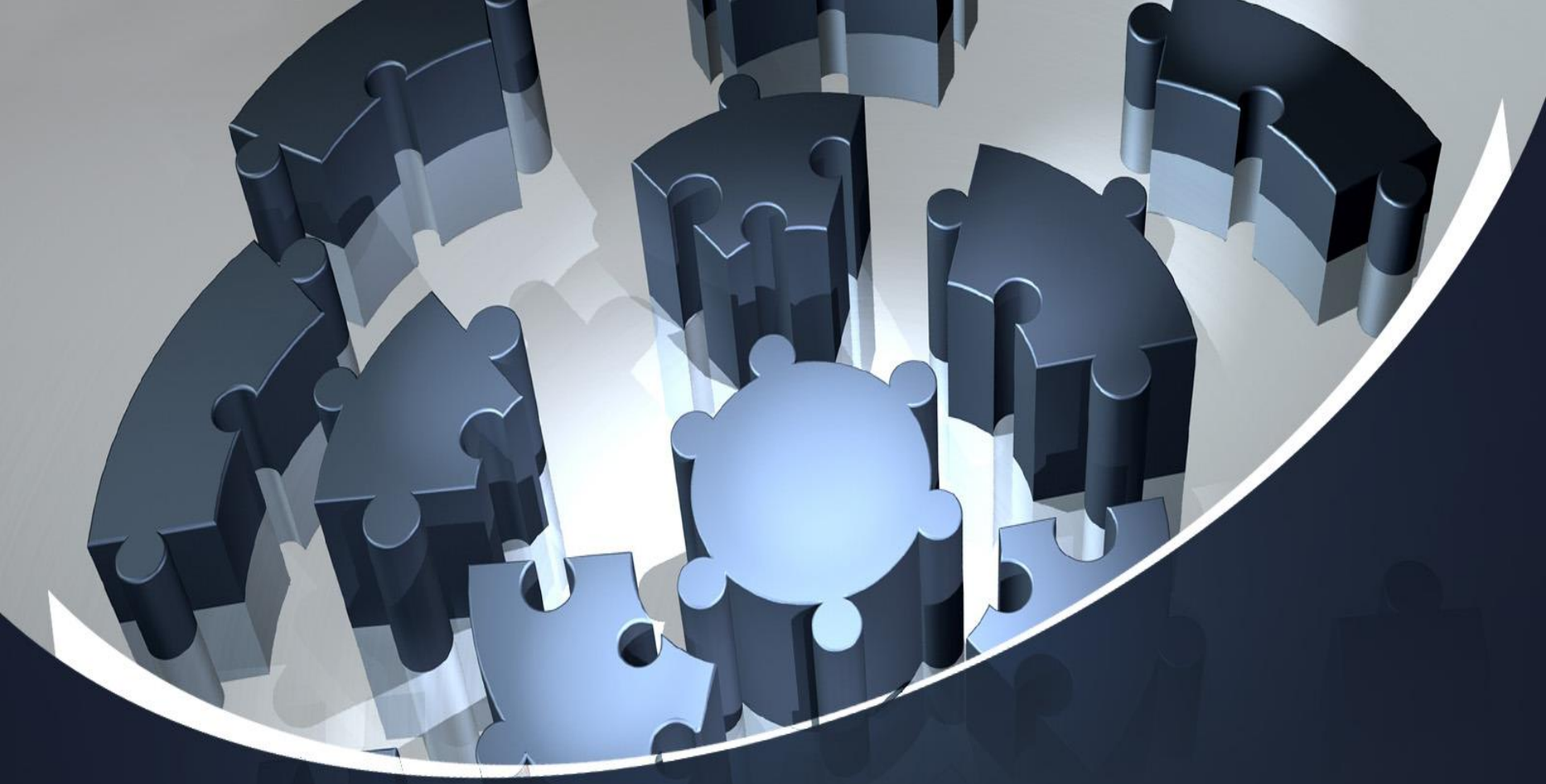
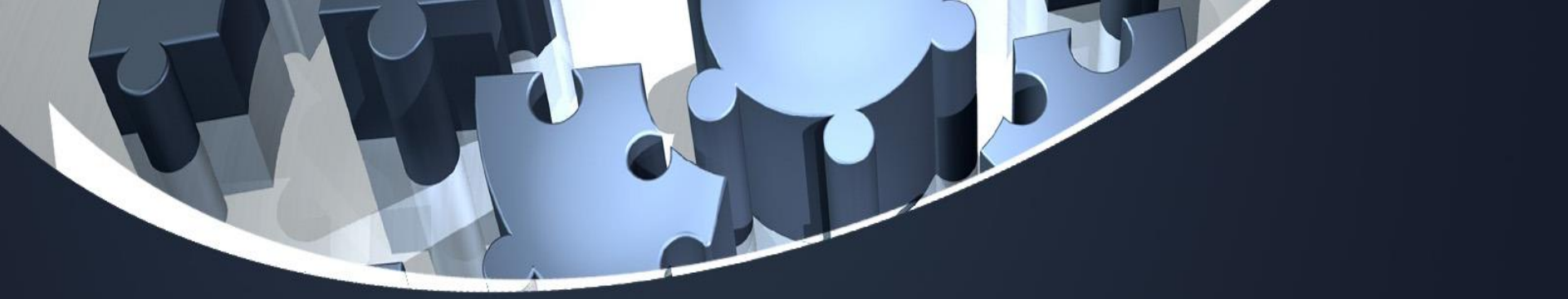


Supply Network Excellence

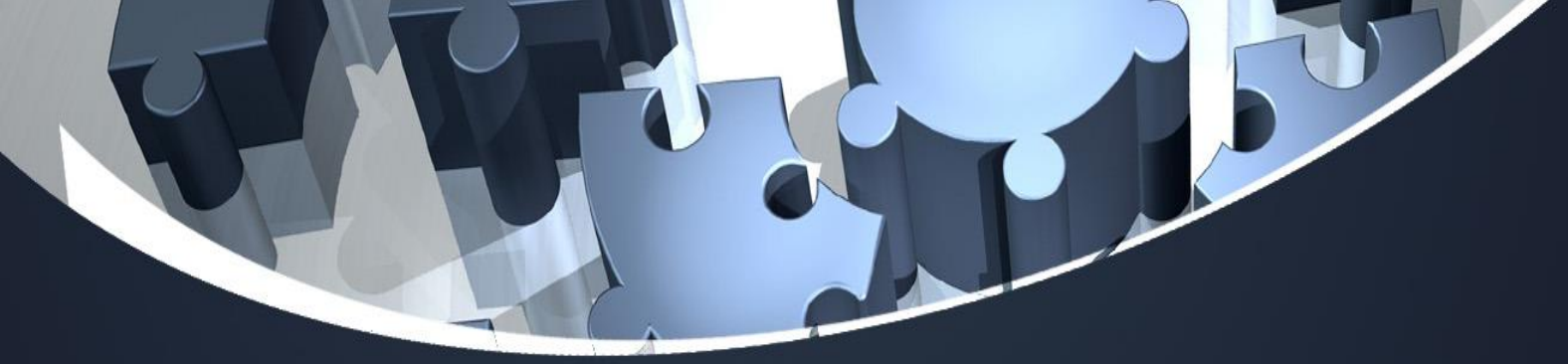


The Major Pain Point In Any Supply Network?

The major pain point in any supply chain (moving toward supply network) is variation; particularly variation in shipment delay.

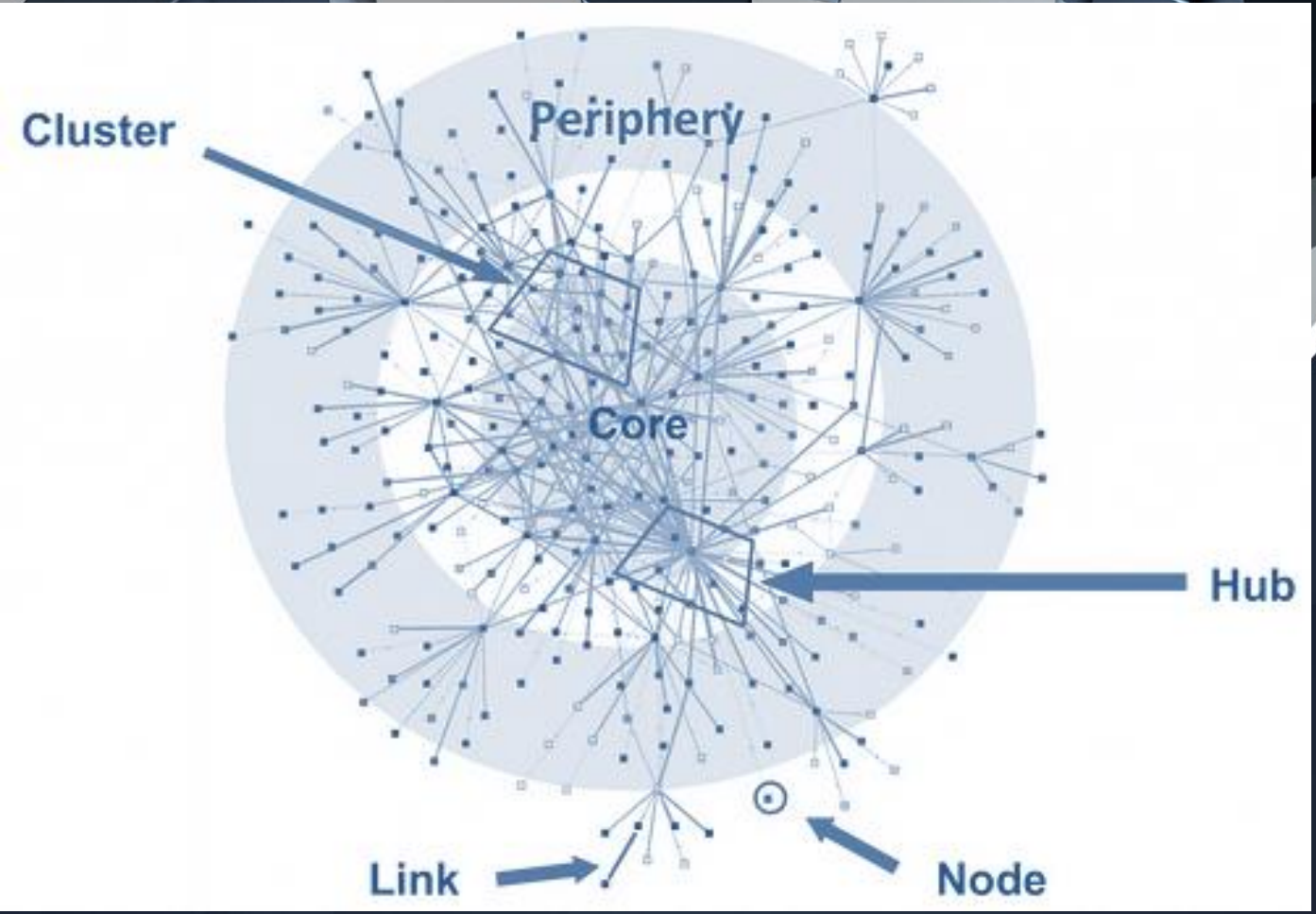
These delays, however caused, cause multiple higher order effects that ripple upstream from retailer to manufacturer to the earliest supplier.

The rest of this presentation will show how delays affect three levels of a supply network: a retailer, a wholesaler, a bottler and in a complex mode.



Supply Network Excellence

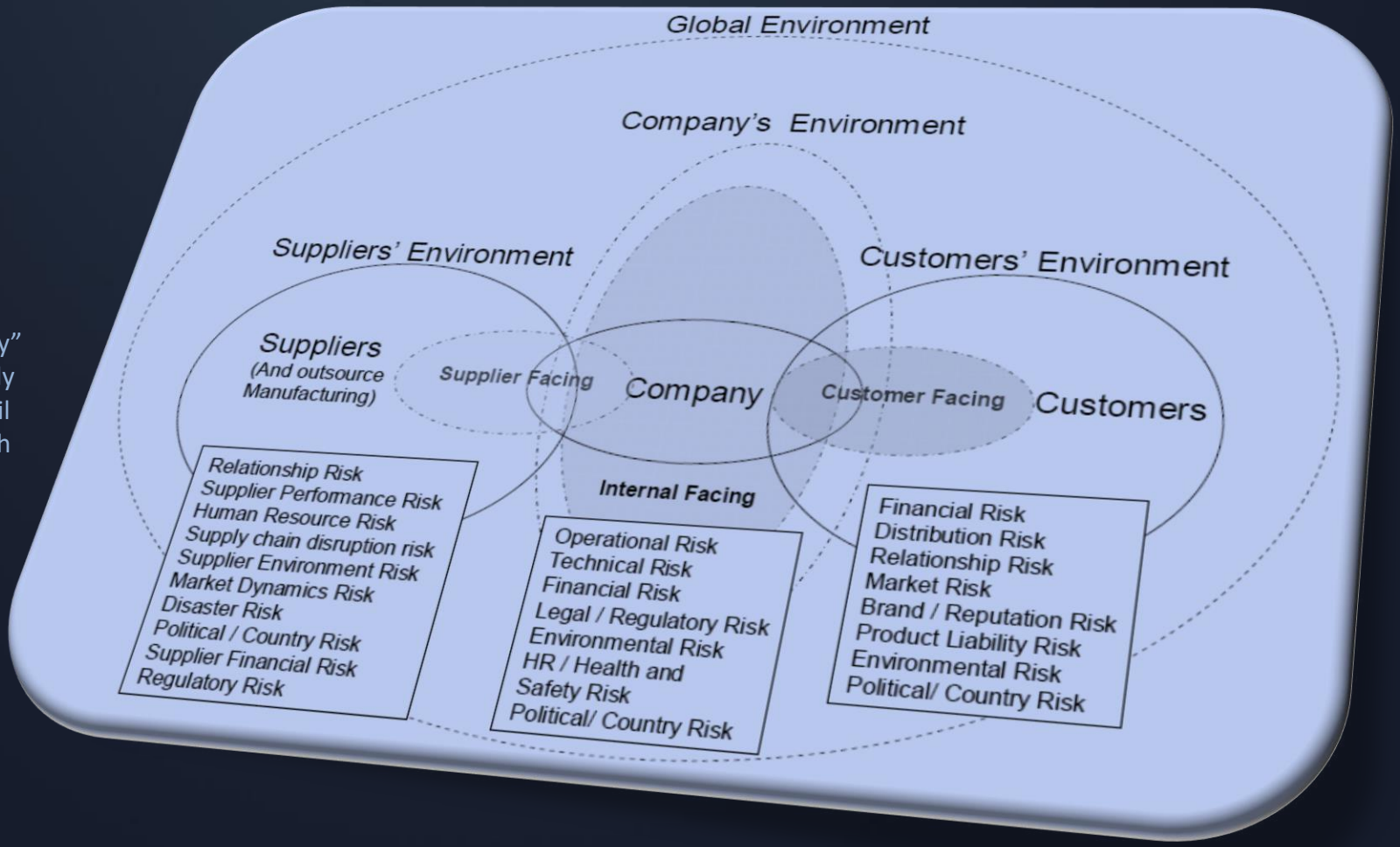
- The purpose is to introduce progressive strategies for improving Lean Supply Network Management (LSNM) and Supply Network Excellence (SNE)
- Current practitioners of Lean Supply Network:
  - ✓ Are agile, flexible, integrated, and customer-focused
  - ✓ Provide information, material, and services with minimum practicable infrastructure, manpower, and expense
  - ✓ Move information and assets seamlessly between suppliers and customers in all operational environments

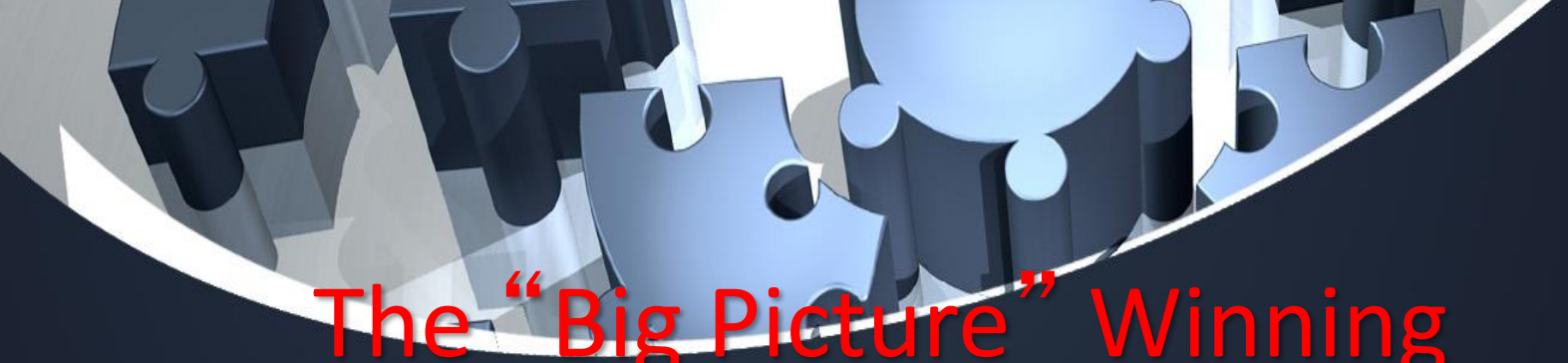


Supply Network Complexity:
The Source of Variation

Perspectives in Supply Network Risk

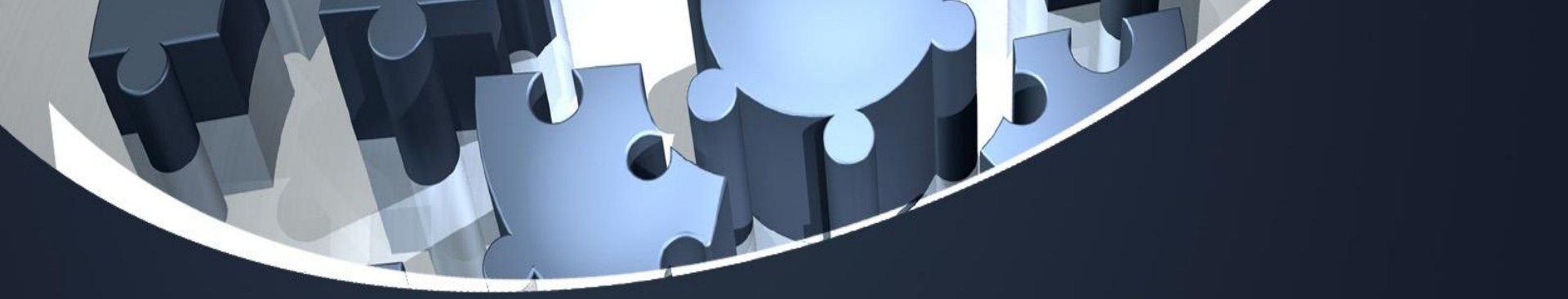
"Managing Risk in Your Organization with the SCOR© Methodology" by The Supply Chain Council Risk Research Team (June, 2008)





The "Big Picture" Winning Strategies

- Corporations must be supplier, market, and customer-focused
- The building blocks of comparative advantage are robust processes and, of course, the right products
- Companies must orient themselves to be integrated delivery systems made up of tightly coupled processes that extend across enterprises
- In other words: A Lean Supply Network



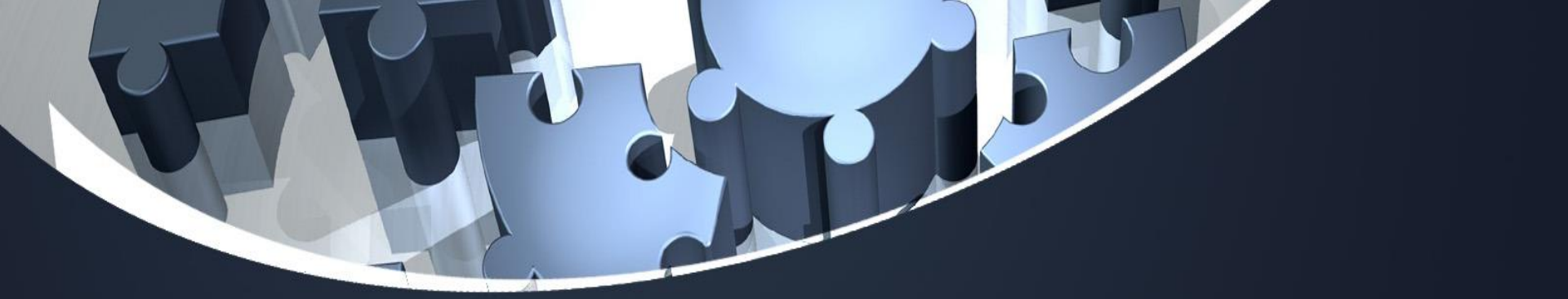
Lean Supply Network

A good definition of a Lean Supply Network:

"Delivery of enhanced customer value through synchronized management of the physical, information, and finance flows – from sourcing to consumption, and back"

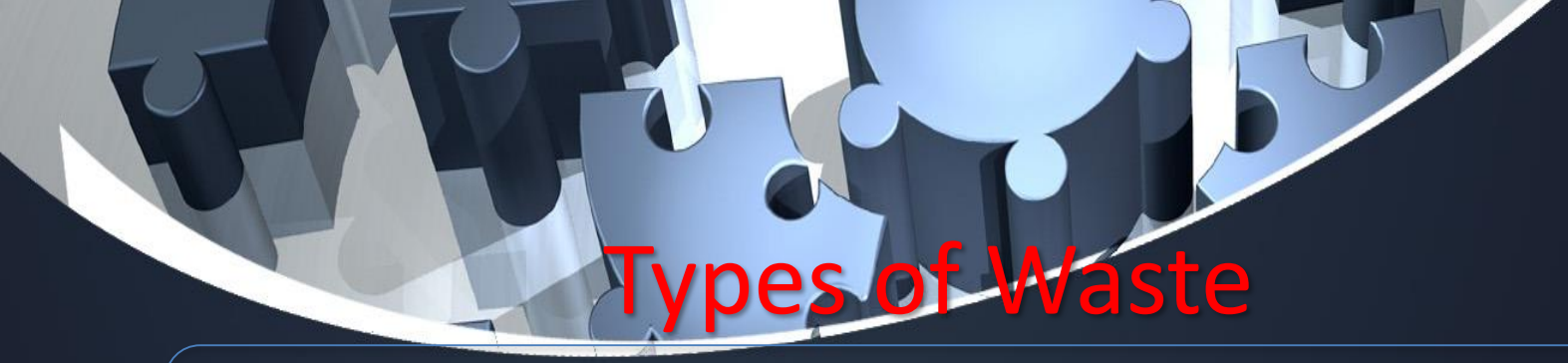
In other words:

"The right product, at the right time, at the right place, in the right quantity, in the right condition, with the right documentation... and at the right price." **The Perfect Order**



Supply Network Management Foundations In Lean

- Lean, by definition, requires the elimination of waste, or the mitigation of resource demands when it cannot be eliminated.
- Lean production is the foundation of SNM: it creates the "pull" environment for the Supplier, Internal, and Customer facing subsystems.



Types of Waste

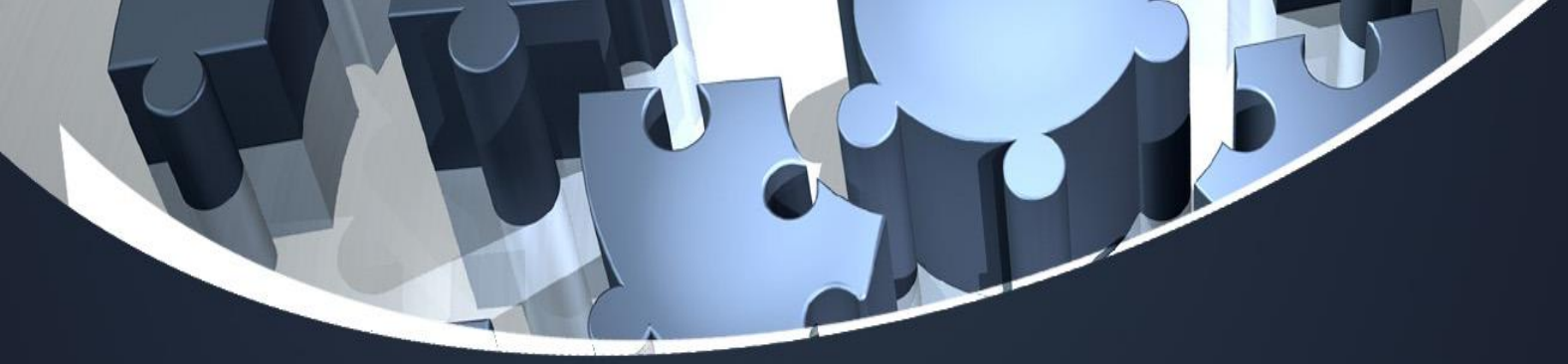
Waste:

- **Any activity that adds no value in the eyes of the Customer**
- **By-product of processes or tasks needing special control**

Type	Description
Overprocess	Taking unneeded steps in work; inefficiencies
Movement (transportation)	Moving product unnecessarily
Methods (motion)	Wasted time or efforts by operators
Product defects	Products/services that do not meet specifications
Waiting time	Queuing delays
Overproduction	Making more product than required
Excess inventory	Holding stock not required to fulfill customer orders
Underused skills	Waste of knowledge or capabilities

Lean Supply Network Management

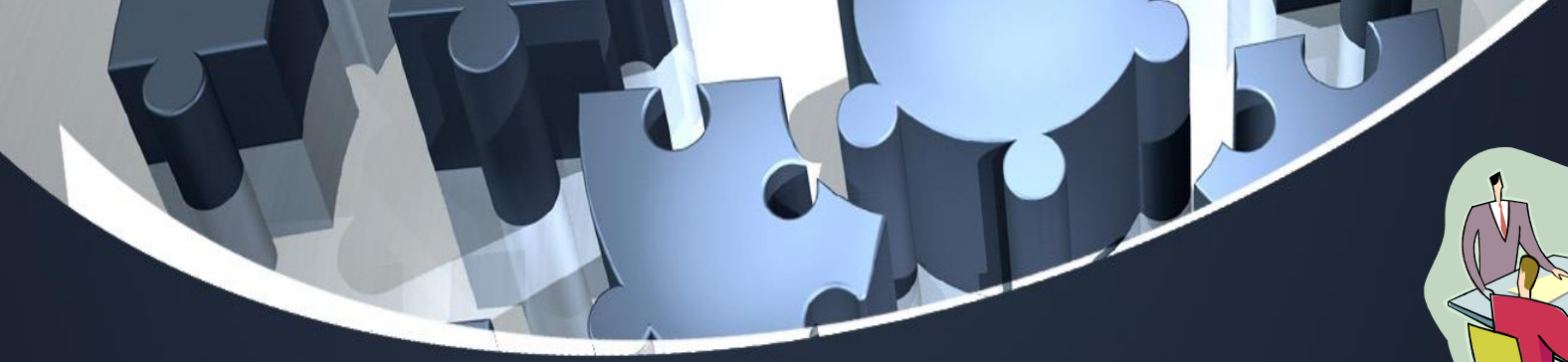
- LSNM: the process wherein companies strive to optimize their supply networks to proactively manage expense and improve profits all the while increasing customer value and experience.
- Successful LSNM depends primarily on controlling four flows within supply networks:
  - ✓ Communication
  - ✓ Robust Processes
  - ✓ Quality Product
  - ✓ Expense Management



Lean Supply Network Management

Lean supply networks offer:

- ✓ Customized products and services
- ✓ Global visibility of supply and demand
- ✓ Agility
- ✓ Flexibility
- ✓ Seamless supplier and distributor management



Lean Supply Network Design

- When looking at supply networks and deciding the appropriate strategy, the designers must understand two critical things:
  - ✓ Are your products "Functional" or "Innovative"?
  - ✓ Do your customers require a "Physically Efficient" or a "Market-Responsive" delivery process?
- The answers to these questions determine how to structure the *RIGHT* supply chain for the situation

SCOR® SC Operational Reference

Source: Adapted from APICS Supply Chain Council

Green SCOR© Model

Reliability — Correct product to customer

- Reduces product discard waste and environmental impact of returns

Responsiveness — Speed of material movement

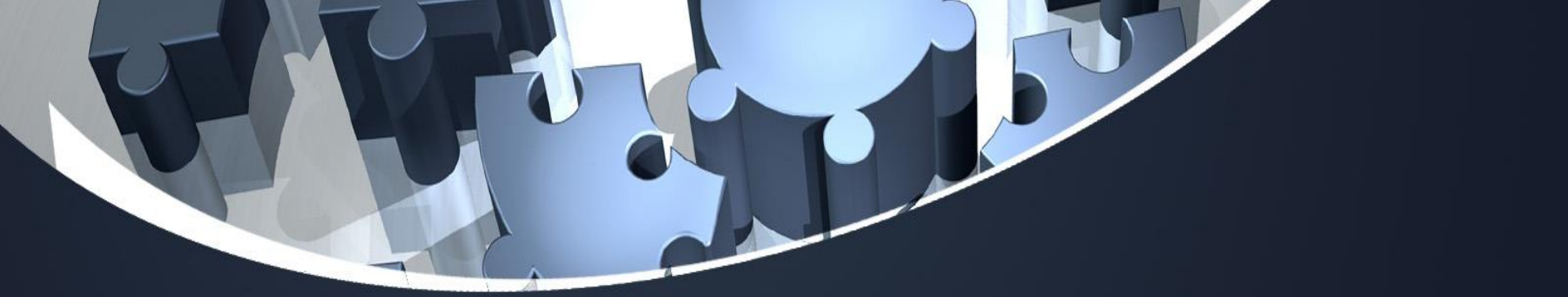
- Environmental impact of SN, including regulatory pollution control steps

Flexibility — Degree to which firm meets environmental demands

- Products and environmental impact of logistics

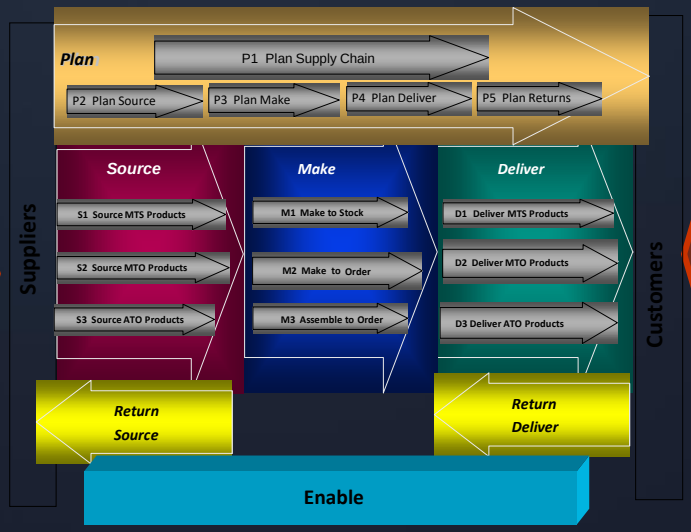
Expense — Expense of environmental compliance, cleanup, & energy use

Asset management — Consider governance, environment, and social investments



Green Supply Network Management

Environmental Management

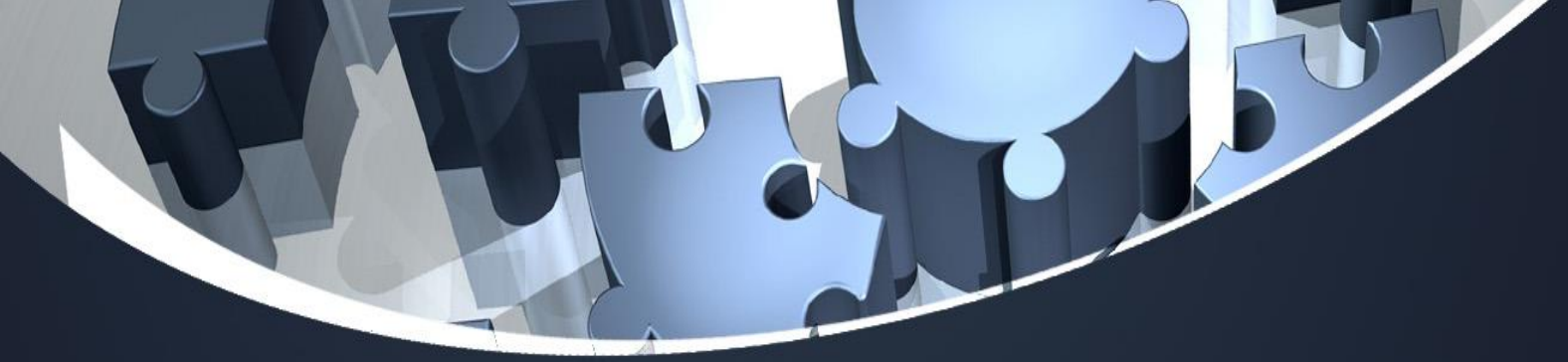


Green Supply Network Management

Supply Network Management

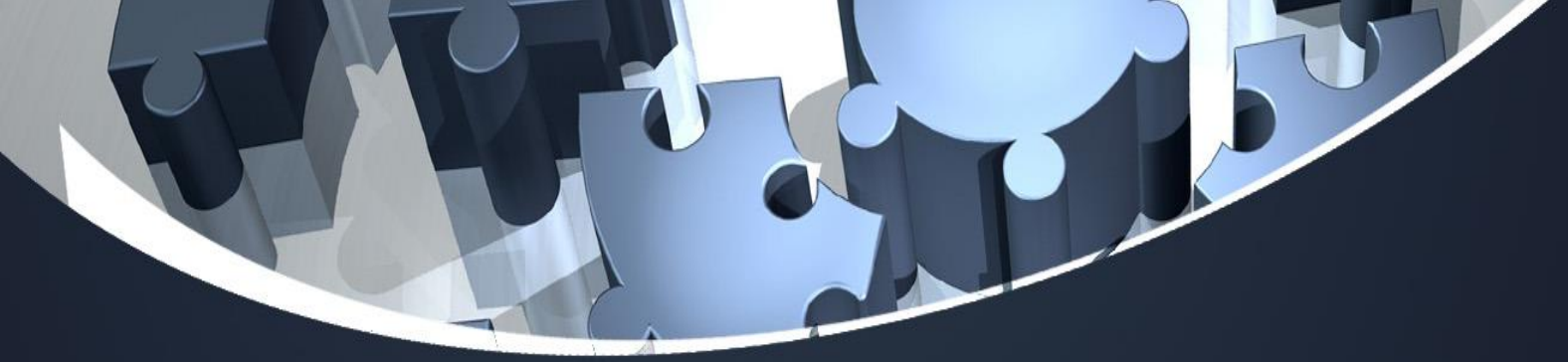
The Beer Game

Or How Variation Creates Pain In The Supply Network



So, now! To the Simulator, Batman!

http://web.mit.edu/jsterman/www/SDG/MFS/simplebeer.html



On behalf of NEQC,
Thank You for Coming!