

# 整合性協作之供應鏈 通路

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1st “Zero-Damage Wrokshop” held by NXP



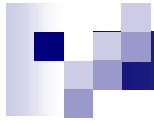
# Outline

- Definition of supply chain management
- Categories of supply chain management
- Introduction of supply chain risk management
- Typical process of risk management
- Conclusion



# 1. Definition of supply chain management

- Supply chain management is an enterprise strive to build closer working relationships with key suppliers and key customers, well-integrated logistics process are key components of successful supply chain management (UNCTAD, 1998).
- The concept of a supply-chain is about managing coordinated information and material flows, plant operations and logistics through a common set of principles, strategies, policies, and performance metrics throughout its developmental life cycle( Lee and Billington, 1993).



- A supply chain is a society( a network of members, termed a group) formed by autonomous entities( and their systems) by bonding together to solve a common problem with their collective and collaborative efforts, they sustain the progress of each member as well as the group.
- Collaboration between members requires effective communication. In a collaborative environment, a member may modify its norms of behavior to accommodate other member's perspectives. (Bond and Gasser,1988)



## 2. Characteristics of SCM

Firms have increasingly been adopting enterprise/supply-chain management techniques in order to deal with integration issues. (Chandra and Kumar, 2001)

- *Supply chain is a cooperative system.*
- *Supply chain exists on the group dynamics of its members.*
- *Negotiation and compromise are norms of operation in a supply chain.*
- *Supply-chain system solutions are optimal.*
- *Integration in supply chain is achieved through synchronization.*

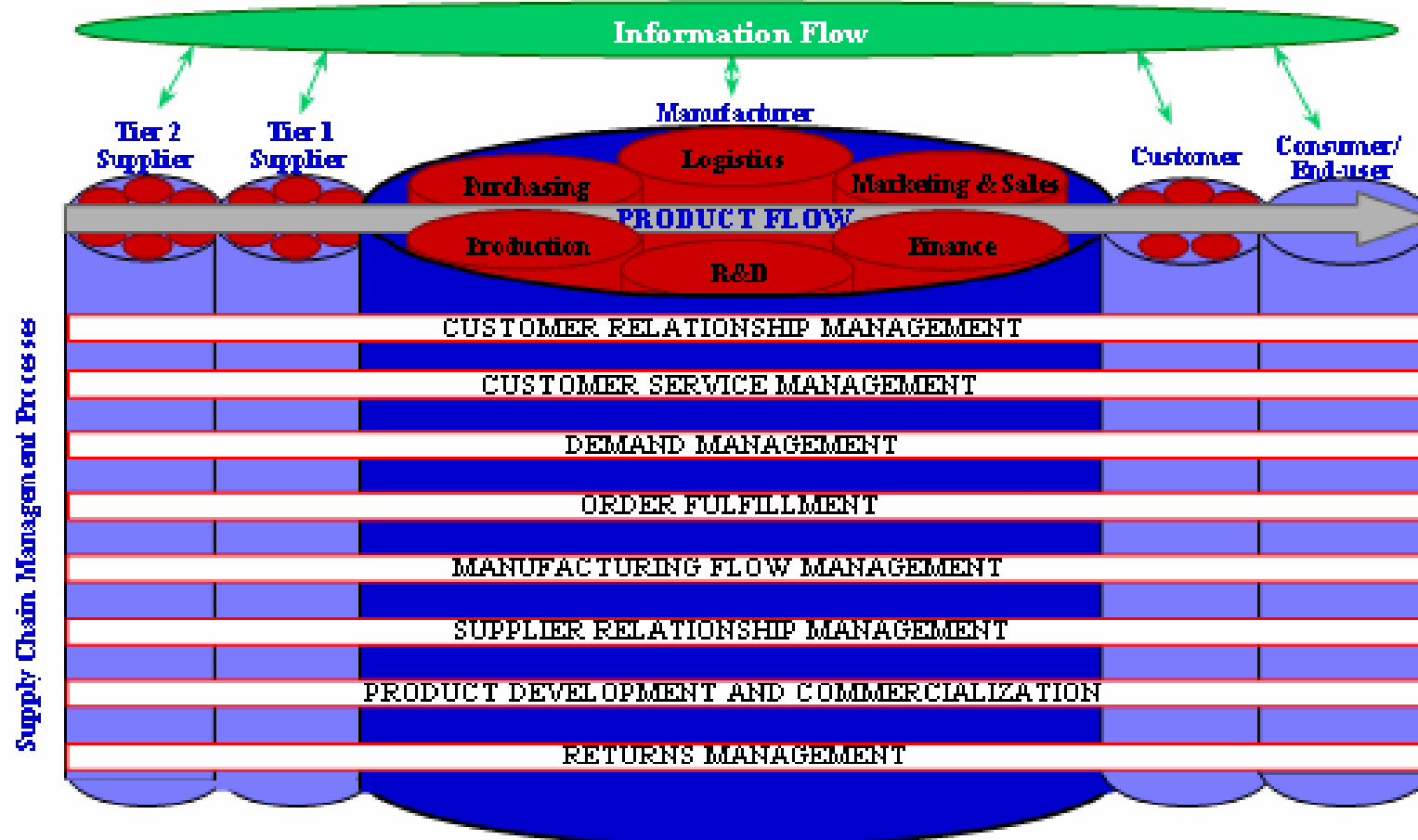


## 2.2 Eight Key SCM process

- Customer relationship management
- Customer service management
- Demand management
- Order fulfillment
- Manufacturing flow management
- Supplier relationship management
- Product development and commercialization
- Return management;

# SUPPLY CHAIN MANAGEMENT

Integrating and Managing Business Processes Across the Supply Chain



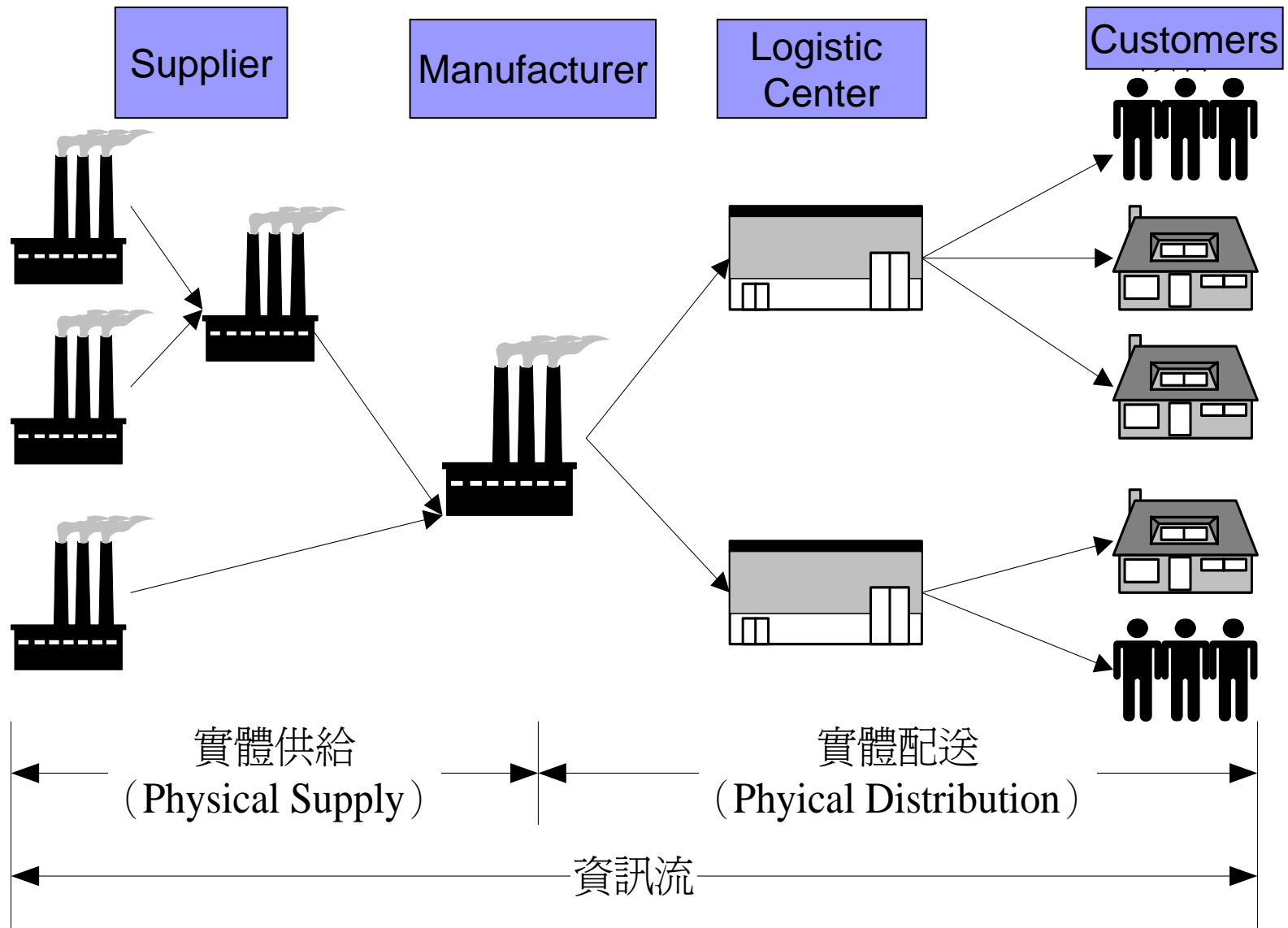
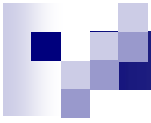
Source: Adapted from Douglas M. Lambert, Martha C. Cooper, and Janus D. Pagh, "Supply Chain Management: Implementation Issues and Research Opportunities", *The International Journal of Logistics Management*, Vol. 9, No. 2 (1998), p. 2.



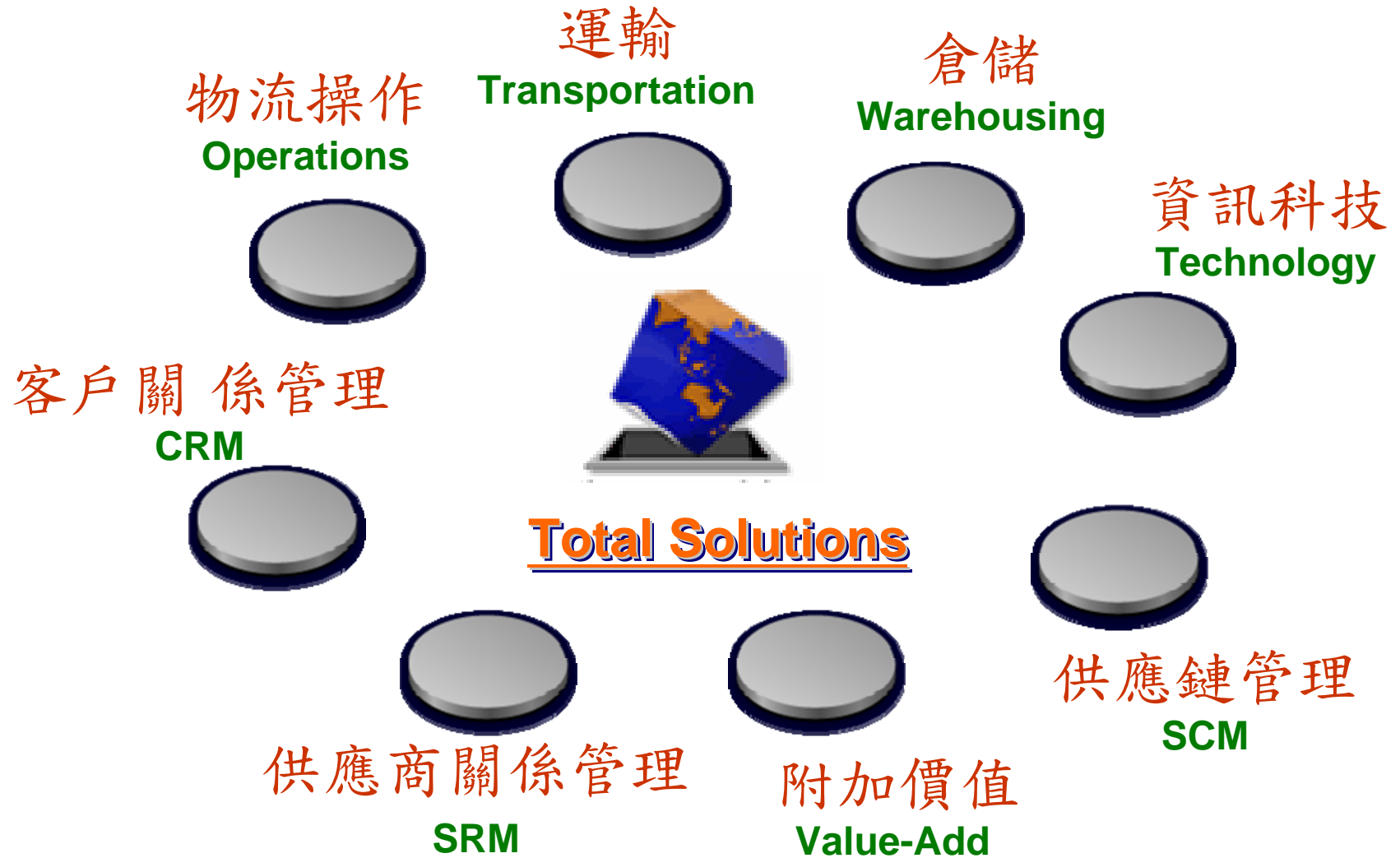
### 3. Categories of Supply Chain Management

- Logistics Operations can be divided into Inbound Logistics Operations, Production Logistics Operations, Outbound Logistics Operations.
- Global supply chain is composed of Physical Supply and Physical Distribution.

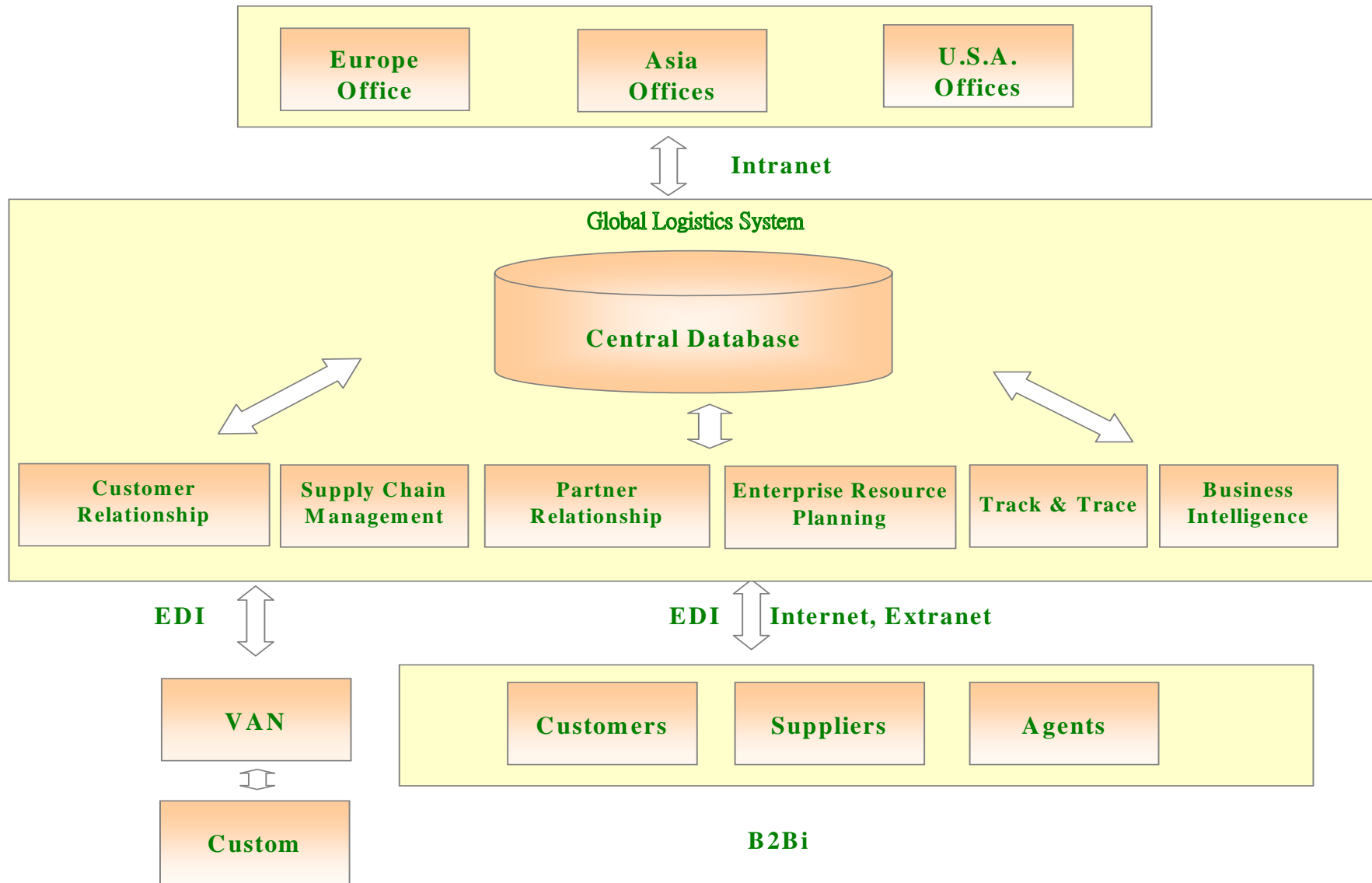




# Scope of SCM



# Framework of SCM

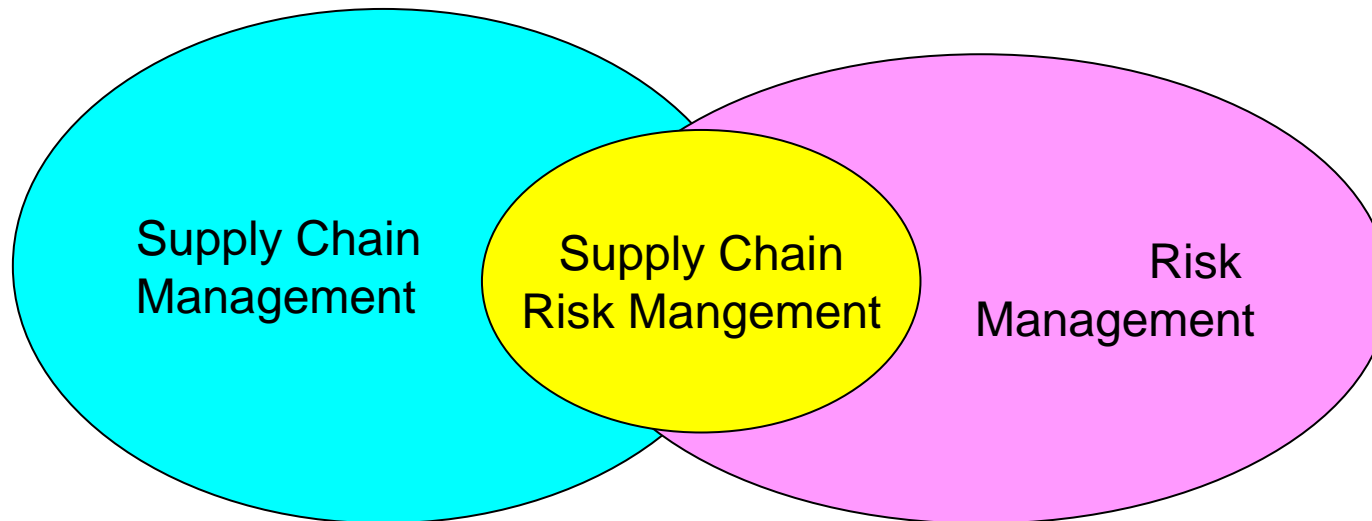




## 4. Introduction of Supply Chain Risk management

- Supply chain risk management (SCRM) is to collaboratively with partners in a supply chain apply risk management process tools to deal with risks and uncertainties caused by , or impacting on , logistics related activities or resources (Norrman and Lindroth, 2002).
- Supply chain risk management is the management of external risks and supply chain risks through a coordinated approach among the supply chain members to reduce supply chain vulnerability as whole. (Martin Schristopher,2002).

# 4.1 Intersection of supply chain management and Risk management





## 4.2 Feature of Supply chain risk management

- Risk can be managed especially by developing a common network strategy, best practices modes of action and contract policies.
- Supply chain risk management process can be carried out together with the business partners
- Effective information sharing among network partners can help in cost management and pricing, shorten lead-times, lower inventories and reduce failures caused by wrong and missing information

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## 5. Typical process of risk management

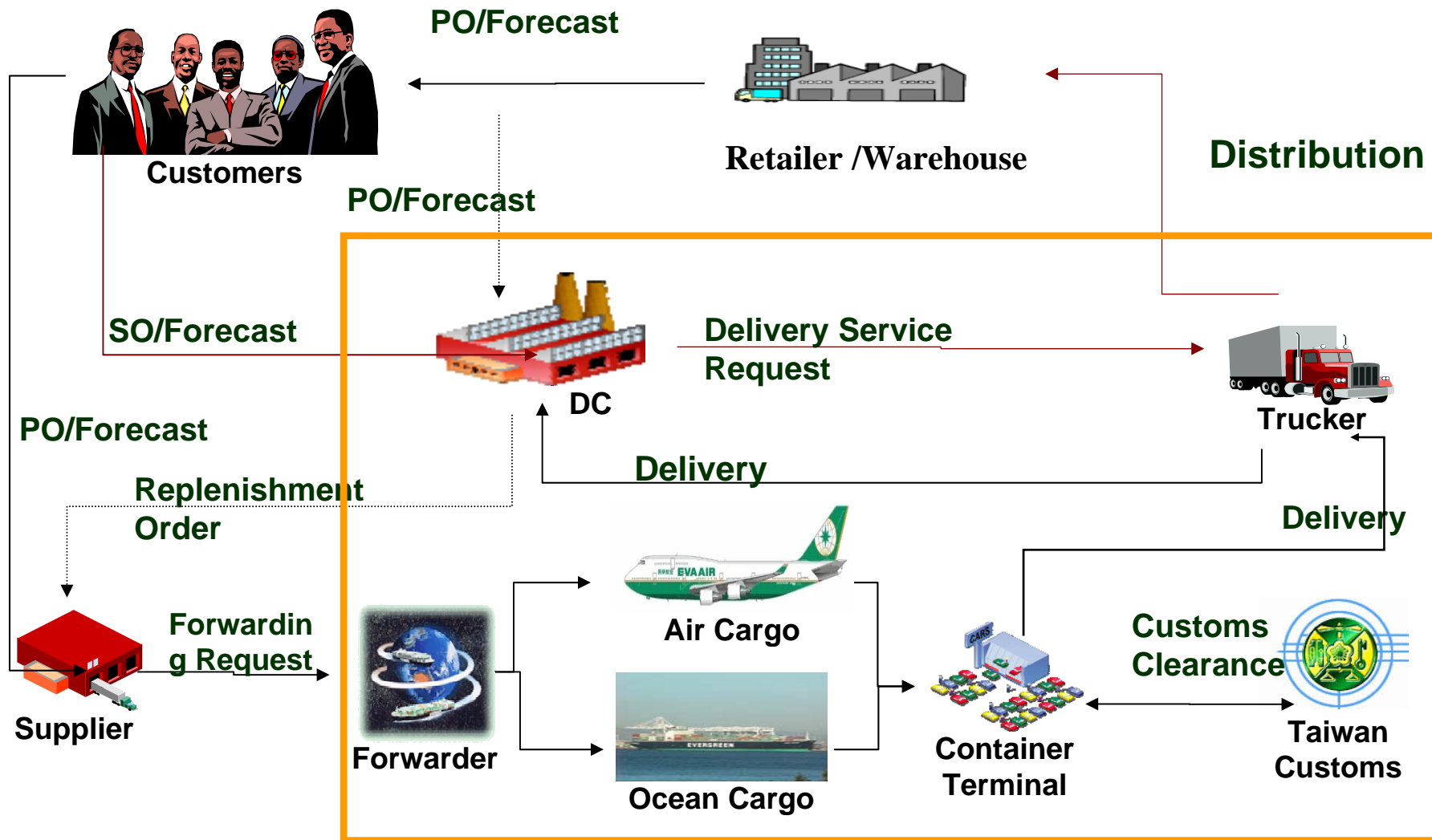
- Risk identification
- Risk assessment
- Identification and implementation
- Risk monitoring
- Risk prevention

# 5.1 Category of Supply Chain Risk

Category of Risk	Drivers of Risk
<b>Disruptions</b>	<ul style="list-style-type: none"> <li>■ Natural disaster</li> <li>■ Labor dispute</li> <li>■ Supplier bankruptcy</li> <li>■ War and terrorism</li> <li>■ Dependency on a single source of supply as well as the capacity and responsiveness of alternative suppliers</li> </ul>
<b>Delays</b>	<ul style="list-style-type: none"> <li>■ High capacity utilization at supply source</li> <li>■ Inflexibility of supply source</li> <li>■ Poor quality or yield at supply source</li> <li>■ Excessive handling due to border crossings or to change in transportation modes</li> </ul>
<b>Systems</b>	<ul style="list-style-type: none"> <li>■ Information infrastructure breakdown</li> <li>■ System integration or extensive systems networking</li> <li>■ E-commerce</li> </ul>
<b>Forecast</b>	<ul style="list-style-type: none"> <li>■ Inaccurate forecasts due to long lead times, seasonality, product variety, short life cycles, small customer base</li> <li>■ "Bullwhip effect" or information distortion due to sales promotions, incentives, lack of supply-chain visibility and exaggeration of demand in times of product shortage</li> </ul>
<b>Intellectual Property</b>	<ul style="list-style-type: none"> <li>■ Vertical integration of supply chain</li> <li>■ Global outsourcing and markets</li> </ul>
<b>Procurement</b>	<ul style="list-style-type: none"> <li>■ Exchange rate risk</li> <li>■ Percentage of a key component or raw material procured from a single source</li> <li>■ Industrywide capacity utilization</li> <li>■ Long-term versus short-term contracts</li> </ul>
<b>Receivables</b>	<ul style="list-style-type: none"> <li>■ Number of customers</li> <li>■ Financial strength of customers</li> </ul>
<b>Inventory</b>	<ul style="list-style-type: none"> <li>■ Rate of product obsolescence</li> <li>■ Inventory holding cost</li> <li>■ Product value</li> <li>■ Demand and supply uncertainty</li> </ul>
<b>Capacity</b>	<ul style="list-style-type: none"> <li>■ Cost of capacity</li> <li>■ Capacity flexibility</li> </ul>



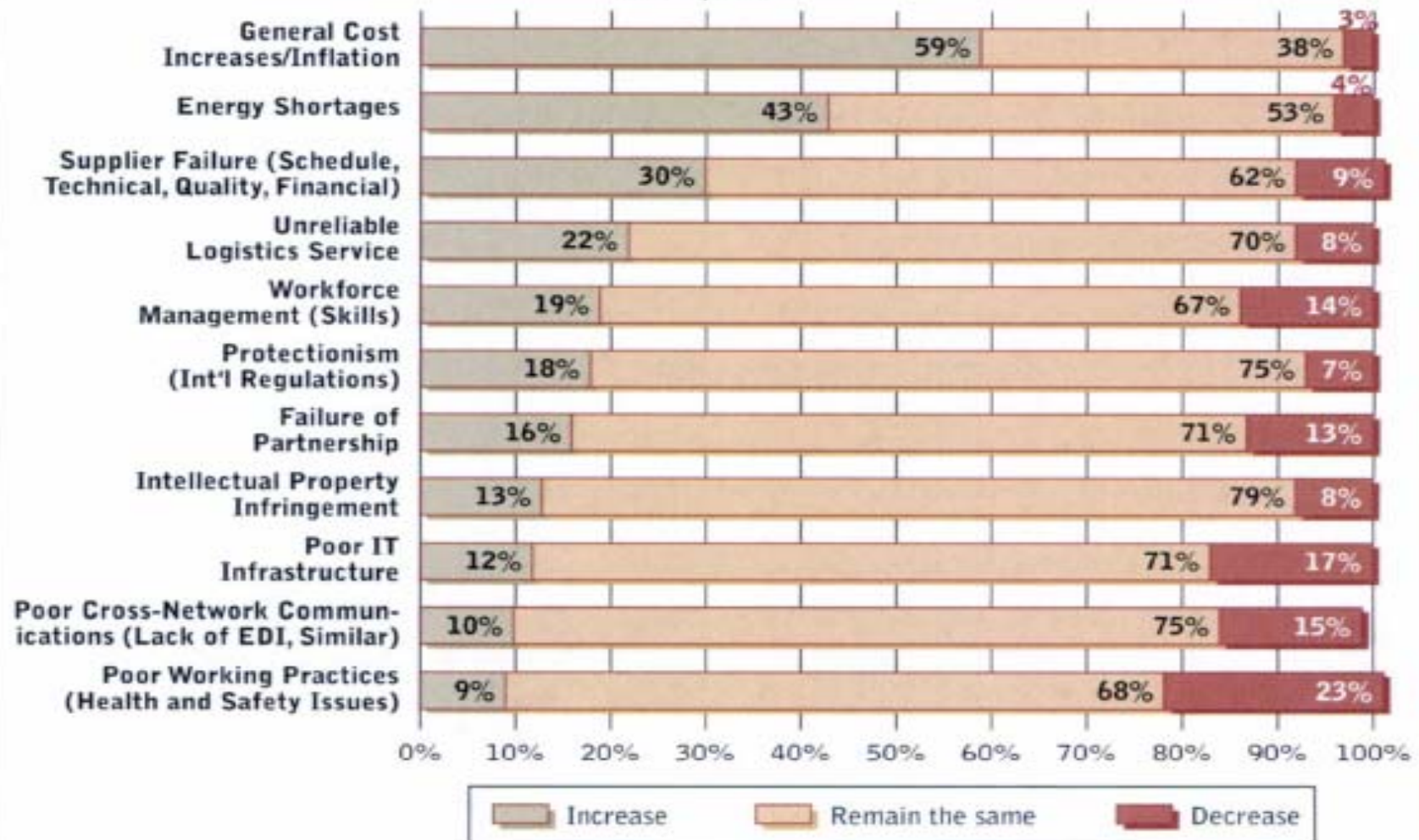
# SCRM total Solutions



## Key Supply Chain Risk Areas

Over the next 12 months, is the level of supply chain risk increasing, staying the same, or decreasing in each of the following areas?

% Responses





## 5.2 Semiconductor production process

- Wafer Fabrication
- Probe Test
- Assembly
- Final Test

# Semiconductor supply chain

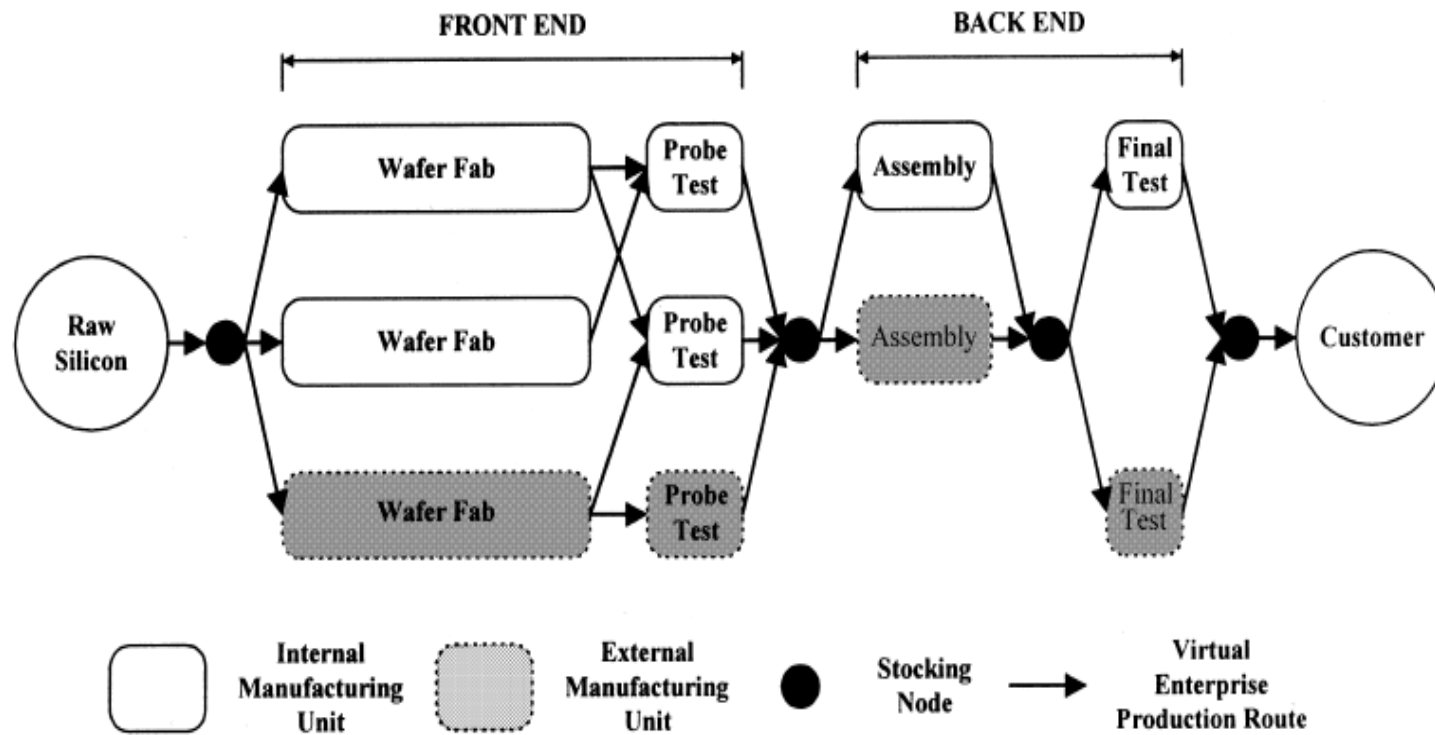


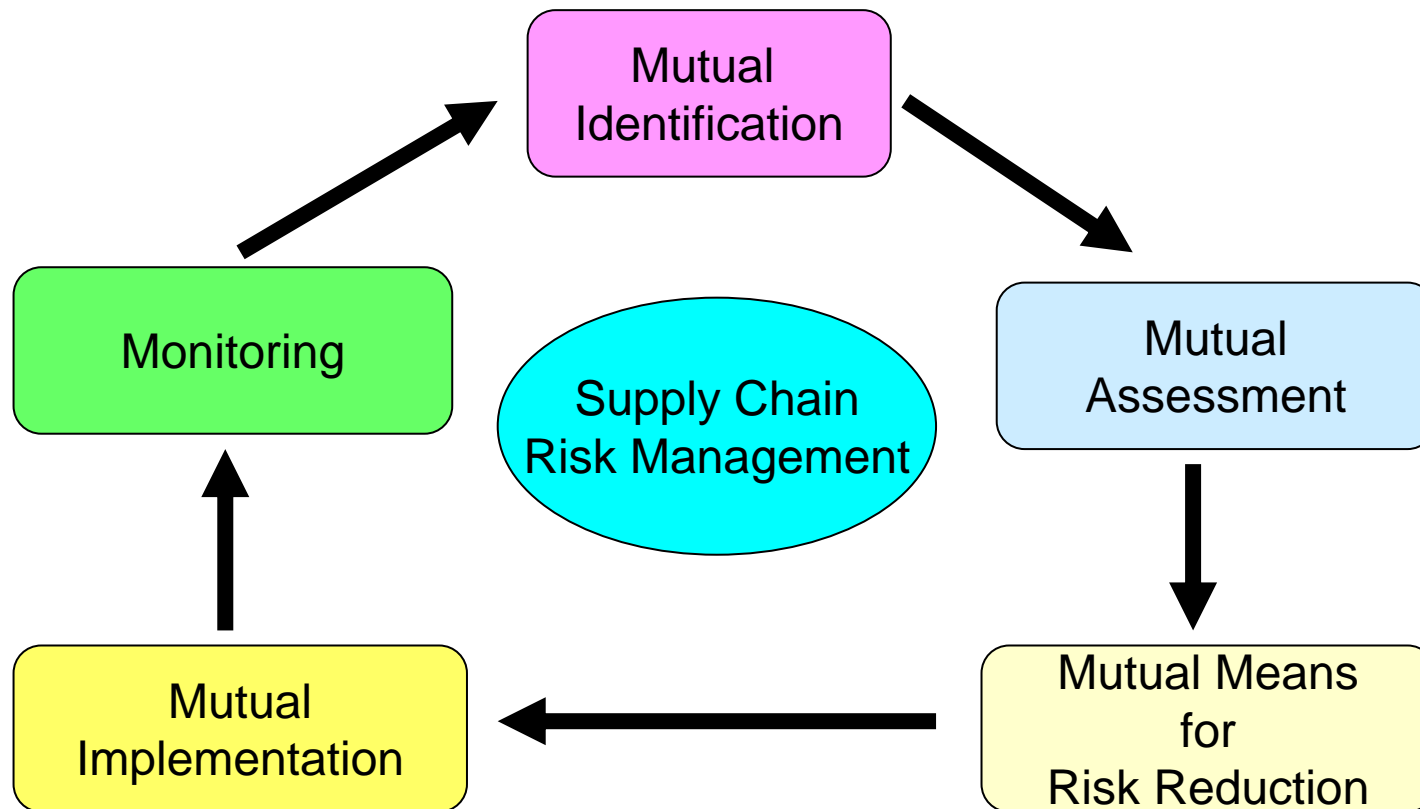
Fig. 1. Semiconductor supply chain.



## 5.3 Careful checking points of Semiconductor product during transportation route

- Vibration prevention
- Humidity inspection
- Temperature control
- Delivery safety
- JIT Principle
- TQC training program
- SOP operating mechanism

## 5.4 Operational process in SCRM



Sources: Jukka Hallikas and R. Veli-Matti Virolainen(2004), "Risk management in supplier relationships and networks", Supply chain risk, ASHGTE.



## 6. Conclusion

- Mutual coordination and communication between supply chain members is the best achievement of Zero Damage Policy.
- Strengthening safety and efficiency concept on the business flow is the best approach of upgrading employee's workforce.
- To prevent and decrease risk occurrence is the duty of everyone evolved in global supply chain.