

**2006  
Northeast Supply Chain**

**Educational  
Conference & Exhibition  
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**Driving  
Supply Chain Excellence**

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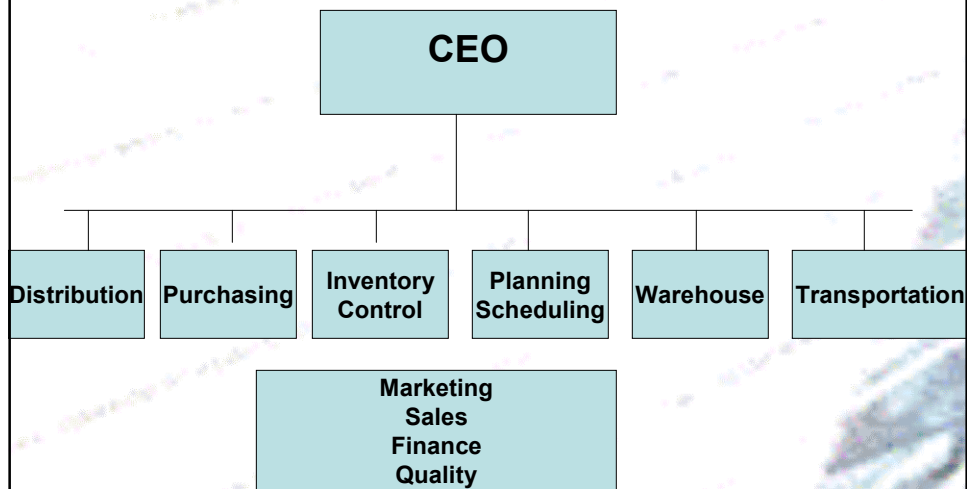
## On the Way to Supply Chain Excellence

- Before Supply Chain Management
- Materials Management
- Supply Management
- The Supply Chain
- Supply Chain Management
- The Internal Supply Chain
- Supply Chain Objectives
- The Supply Chain Going Global
- Global Sourcing
- The 21<sup>st</sup> Century Organization
- The Supply Hierarchy
- Moving to a Supply Chain Professional
- The Supply Chain Language
- Successful and Unsuccessful Supply Chains
- Driving Excellence
- The Adaptive, Agile, and Aligned Supply Chain
- The Basic Steps
- The Next Wave Principles
- The Top Ten Excellence Busters
- The Top Ten Driving Excellence

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## Before Supply Chain Management



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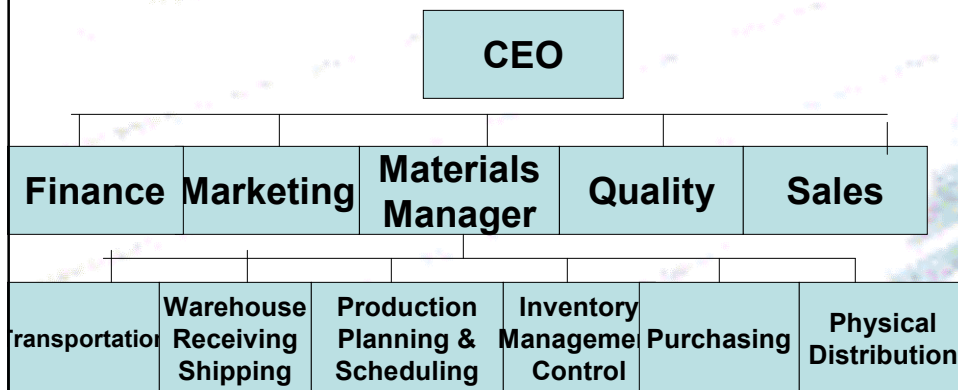
# Materials Management

- **Integrated approach to managing materials, resources, and people**
- **Integration of**
  - Purchasing,
  - Transportation
  - Inventory management and control
  - Warehouse including receiving and shipping
  - Forecasting
  - Production planning and scheduling
  - Physical distribution
  - Customer service
- **Materials manager**
- **Responsible for overseeing all of the materials functions**
- **Supply, transportation, inventory, etc. decisions made to minimize overall materials costs not to minimize a function's costs or enhance the performance of any particular department or function**

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# Materials Management



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## Supply Management

- **The forecasting, planning, sourcing, acquisition, storing, managing, and disposing of materials used or for potential use to support the organization's production, distribution, and customer service**
- **Institute For Supply Management (ISM)**
  - **Formerly the National Association of Purchasing Management (NAPM)**

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## The Supply Chain

- **The supply chain is a series of organizations that jointly create value for ultimate customers**

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## Supply Chain Management

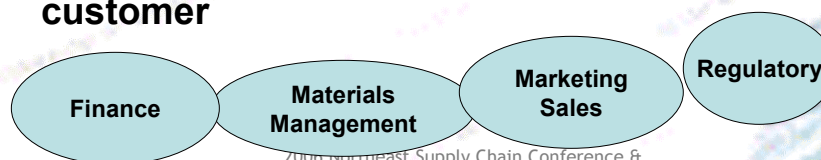
- **Supply chain management is the proactive management of supply chain links that are critical to an organization's operations**
- **A systems approach to managing flows of information, materials, and services from raw materials suppliers through factories and warehouses to the end-customer**

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## The Internal Supply Chain

- **A cross-functional team focusing on the design, implementation, and management of a series of activities that provide the ultimate customer with what they want**
- **The design and management of seamless, value-added processes across departmental boundaries to meet the real needs of the end customer**



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# Supply Chain Management

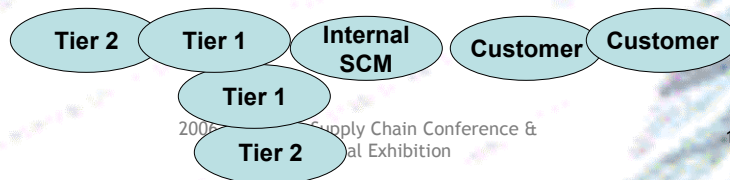
- **SCM encompasses all activities associated with the flow and transformation of goods from the raw materials stage through to end users, as well as the associated information flows**
- **The networks, or chains of suppliers, producers, and customers involved in producing and marketing particular products**

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# Supply Chain Management

- **Includes systems management, operations and assembly, purchasing, production scheduling, order processing, inventory management, transportation, warehousing, and customer service.**
- **AT EVERY TIER OF THE SUPPLY CHAIN**



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## **Supply Chain Management**

- **Identify the processes necessary to meet customer expectations**
- **Engineer SCM processes as the core of the business**
- **Move from a silo to a team philosophy**
- **Integrate internal processes**
- **Define metrics**
- **Operate the internal supply chain**
- **Measure performance**
- **Integrate the internal supply chain with the supply chains of other organizations**

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## **Supply Chain Objectives**

- **Improve customer service/satisfaction**
- **Reduce or share risks**
- **Improve performance**
- **Reduce cycle time**
- **Reduce costs**

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## The Supply Chain Going Global

- Expands to include upstream suppliers anywhere in the world
- Expands to include downstream customers anywhere in the world
- Expands to an internal supply chain that may produce in global sites owned by the organization
- Benchmark
- Planning: Putting strategy before technology
- Managing risk
- Take advantage of technology – correct technology
- Control costs
- Work with suppliers
- Look for hidden costs – lost sales, restocking, returns, wasted hours, customer problems
- Improve visibility, product development cycles, and velocity
- 
- 



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## Global Sourcing

- **The ability of an organization anywhere in the world**
  - To purchase materials anywhere in the world
  - To produce anywhere in the world
  - To transport materials anywhere in the world
  - To store anywhere in the world
  - To sell anywhere in the world

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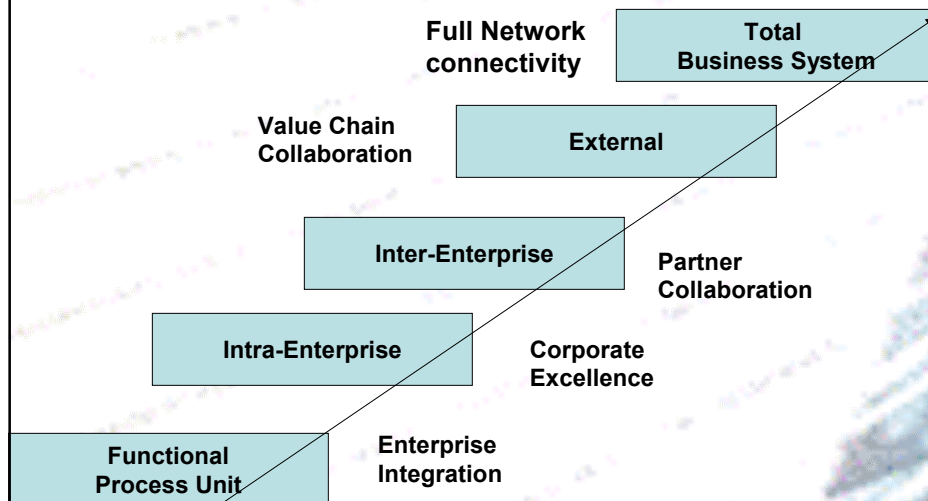
# The 21<sup>st</sup> Century Organization

- Continuous improvement
- Speed and responsiveness
- Leadership for everyone
- Virtual organizations
- Information sharing
- Creativity and intuition
- Proactive
- Interdependence
- Collaborative advantage
- International focus
- Learning organization
- Green and eco-friendly

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# Supply Chain Hierarchy



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## Moving to a Supply Chain Professional

- **Supply Management**
    - Materials management functions
    - Communication
    - Conflict management
    - Project management
    - E-commerce
    - Tactical manager not doer
    - Strategic thinker
    - Human relations manager
  - **Supply Chain Professional**
    - Collaborative mindset
    - Team orientation
    - Facilitation of teams
    - Manager of diverse relationships
    - Subject expert
    - Financial expert
    - Risk manager
    - Trade-off manager
    - Total cost perspective
    - Global expert
    - End-to-end thinking
    - Change management
- 

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## The Supply Chain Language

- **Core competencies**
- **Stakeholders**
- **Enterprise**
- **Downstream and upstream channel members**
- **Best tiering**
- **Best shoring**
- **Tier management**
- **Off shoring**
- **Low cost country sourcing**
- **The bullwhip effect**

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## **The Successful Global Supply Chain?**

- All stakeholders are focused on the ultimate customer.
- On-demand, real-time data as to exactly what is happening anywhere in the supply chain available to all stakeholders
- Total trust between channel members
- A supply chain that produces just what and how much is needed, when it is needed, and where it is needed
- Metrics that align with business and supply chain priorities
- Strategies are put before technology.
- Risk management portfolio for the entire supply chain
- Collaborative internal, supplier, and customer relationships
- Flexibility built into the supply chain.
- Inventory in the right format at the right location in the supply chain
- An end-to-end focus by all channel members
- A cross-functional supply chain mindset

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## **The Unsuccessful Global Supply Chain?**

- Lack of understanding at all levels
- Lack of senior management buy-in
- Silo mentality
- Too many measurements and focus on the wrong measurements
- Lack of alignment between business, supply chain, and internal functions
- Inventory held at every tier
- Transactional activities
- Lack of tier management

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## Driving Excellence

Adaptive	Agile	Aligned
<p><b>A supply chain that has structures in place that are flexible and anticipate change</b></p>	<p><b>A supply chain that can quickly execute actions and initiatives based on rapid decision making and tight performance monitoring</b></p>	<p><b>A supply chain with supply network partners synchronized in their business efforts, collaborating and addressing any supply network issues</b></p>

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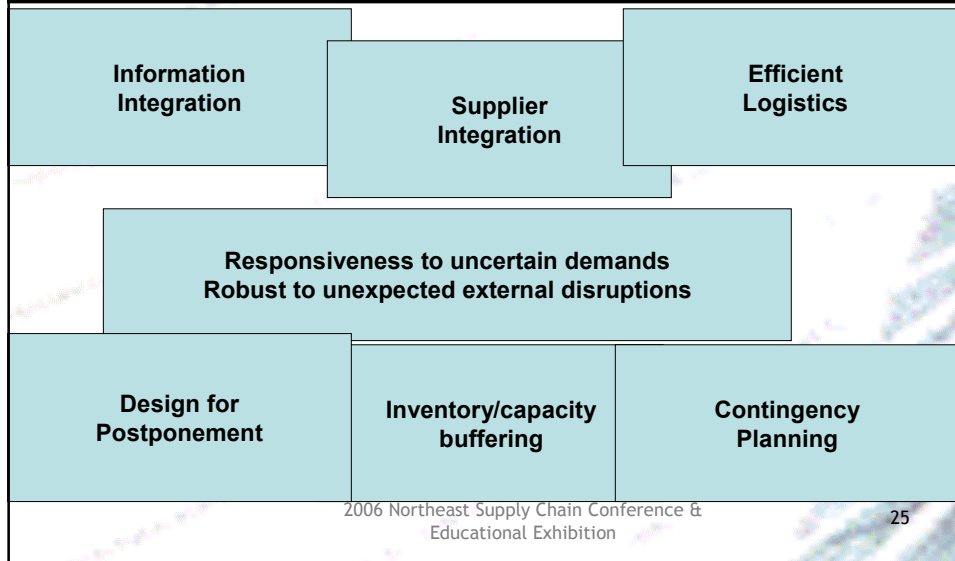
## The Adaptive Supply Chain

Pattern Recognition	Preparedness	Supply Chain Structure
<p><b>Demand Supply base Technology cycle Product life cycle</b></p>	<p><b>Market entrance Supply network development Product design flexibility Look-ahead planning</b></p>	<p><b>Supply and manufacturing bases Outsourcing relationships Distribution channels New markets and customers</b></p>

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# The Agile Supply Chain



# The Aligned Supply Chain

Dimension	Exchanges	Objectives
Information alignment	Information knowledge	Common Shared
Identity alignment	Role, work, responsibility	Efficiency Flexibility
Incentive alignment	Accountability Risks/costs/gains	Equitable and Overall performance

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## The Basic Steps

- The existing organizational culture
- Level of trust at all levels and with suppliers/customers
- A change management process
- Introduction of trust
- Focus on the internal supply chain first
- Supply chain awareness training
- Steps in undoing wrongs from the past
- A champion of change
- A strategy for moving the masses to supply chain thinking

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## Getting a Little Help From Other Concepts

- Lean thinking
  - Value
  - Value stream
  - Value stream mapping
  - Flow the value stream
  - From push to pull
  - Continuous improvement
- Six Sigma
  - A particular goal of reducing defects to near zero
  - 3.4 errors in a million tries

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## Driving Supply Chain Excellence

- **The Next Wave Principles**
  - Visibility
  - Collaboration
  - Connectivity
  - Scalability
  - Leverage
  - Technology
  - Supply Base Management
  - Synchronization
  - Risk identification
  - Business continuity planning
  - Portfolio design
  - Inventory considerations
  - Information/knowledge management
  - Business continuity planning
  - Event management

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## The Next Wave Principles

- **Visibility**
  - The ability to see activities throughout the supply chain virtually or near-virtually
    - Internet
    - Supply chain software
    - Full integration of all legacy and new software programs
- **Collaboration**
  - An integration of planning and decision making across organizational boundaries
    - All stakeholders understand their roles in the supply chain, business processes, expectations
    - Everyone is focused on serving the ultimate customer

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## The Next Wave Principles

- **Connectivity**
  - Strategic, tactical, and operational connections between all supply chain organizations through open communication, technology, and architecture of the supply chains
- **Scalability**
  - The ability to develop a set of supply chain business processes that can be duplicated with additional customers and third-party relationships

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## The Next Wave Principles

- **Leverage**
  - Core competency focus
  - Leverage the core competencies of other organizations
  - Core customer focus
  - Customer relationship management
- **Technology**
  - Customer relationship management
  - Supplier relationship management
  - ERP
  - Demand/Supply
  - RFID
  - E-procurement
  - Warehouse management
  - Collaborative software
    - Sales and Operating
    - Collaborative Planning Forecasting and Replenishment

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## The Next Wave Principles

- **Supply base management**
  - A documented total supplier program
    - Selection criteria
    - Evaluation
    - Management
    - Development
- **Revisions of criteria**
  - Security
  - Long-term growth
  - Electronic expansion
- **Revisions of evaluation criteria**
- **Performance management**
- **Tier sourcing**
- **Tier management**

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## The Next Wave Principles

- **Synchronization**
  - Theory of constraints – the slowest link in the supply chain will impact all other links
  - All links should produce exactly what is needed at every level, at the right time, at the right place, at the right volume, etc.
  - No inventory build-up anywhere in the supply chain

Supply Chain Links



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# Next Wave Principles

- **Risk Identification**
  - **Internal**
    - Disruptions of internal operations
    - Business risks
    - Planning and control risks
    - Mitigation and contingency risks
  - **External**
    - Demand
    - Supply
    - Environment
    - Business
    - Physical plant

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# Next Wave Principles

1. **Profile supply base**
  - Identify each raw material or component
  - Identify strategic materials
  - Understand supplier's organization
2. **Assess vulnerability**
  - Supply risks
  - Demand risks
  - Environmental risks
  - Process and plant risks
  - Business risks
- 3. **Evaluate implications**
- 4. **Identify mitigation and contingency actions**
- 5. **Complete cost/benefit analysis**

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## Next Wave Principles

### Business Continuity Planning

Awareness	Prevention	Remediation	Knowledge Management
Internal External	Identification Assessment Treatment Monitoring	Plan Measure Impact Duration Resources Execution	Track results Things gone wrong Things gone right Future action list

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## Next Wave Principles

- **Portfolio Management**

- An organization's analysis and cost structure for buying, producing, transporting, storing, and selling their products at various locations including transportation costs
- A cost matrix implemented and maintained so that decisions can easily be made on how best to manage the entire physical chain of products in the face of potential or real risk disruptions

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## Next Wave Principles

- **Portfolio Design**
  - Multiple supply sources
  - Multiple manufacturing locations
  - Transportation modes
  - Transportation channels
  - Special conditions
  - Costs for each possible source
  - Create various supply chain scenarios
  - System will provide total cost per example

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## Next Wave Principles

- **Inventory Considerations**
  - Postponement
  - Reduction of inventory at every level of the supply chain
  - Forms of inventory
  - Location of inventory within the supply chain

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# Next Wave Principles

- **Information/Knowledge Management**
  - What information is needed?
  - How will the organization get that information?
  - How will the organization get that information virtually?
  - What systems and processes are in place to move that information within the supply chain quickly?
  - How quickly can the supply chain act on the information
  - Product Information
  - Customer information

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# Next Wave Principles

- **Event Management**
  - A supply chain event
    - Any individual outcome or non-outcome of a supply chain cycle, (sub) process, activity, or task
  - Supply chain event management
    - The application of statistical process and technology identification and control solutions to standard and non-standard supply chain events
  - Event category
    - A logical grouping of supply chain events
- **Event Management**
  - Event probability Index (EPI)
    - The statistical measure, on a scale of 0 to 1, of the tendency of an event to occur within the supply chain (1=always occurs, and 0 = never occurs) over a given time interval
  - Standard event
    - An event that tends to occur within the supply chain, that is, has an EPI of .50x or higher
  - Non-standard event
    - An event that tends not to occur within the supply chain, that is, has an EPI of .49x or lower

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## Next Wave Principles

- **Event Management**
  - **Event management plan**
    - A documented process that outlines the steps taken to control or react to an event.
  - **Planned event**
    - An event for which a documented EMP exists
  - **Unplanned event**
    - An event for which a documented EMP does not exist

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## The Top Ten Success Busters

1. Managing a chain
2. Not altering the organizational culture
3. Focusing on vertical Integration focus
4. Thinking technology is the answer
5. Not synchronizing supply and demand
6. Real time visibility without considering costs
7. Misreading the skill set of employees
8. Confusing globalization with global brands and cross-border trade
9. Mono-supply chain – one size fits all
10. Thinking this is easy

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## The Top Ten Driving Excellence

- **1. Be visible- real-time, on-demand data as to exactly what is happening in the supply chain**
- **2. Let's get lean – the lean supply chain produces just what and how much is needed, when it is needed and where it is needed**
- **3. The Metric Reloaded – measure the right things**
  - Match metrics to your business and customize those that need tweaking
  - Prioritize these metrics based upon your supply chain and business priorities
- **4. Select metrics that matter**
  - Forecast error
  - Order fulfillment
  - Revenue and profit
  - Cost of manufacture, transportation, warehousing
  - Customer retention
  - Excess inventory
  - Obsolete product
  - On-time delivery
  - Returns
- **5. Manage the measure**
  - Define it
  - Information resources
  - Collect data
  - Decision support tools
  - Monitor

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## The Top Ten Driving Excellence

- **6. Benchmark**
- **7. Planning: Putting strategy before technology**
- **8. Managing risk**
- **9. Take advantage of technology – correct technology**
- **10. Control costs**
  - Work with suppliers
  - Look for hidden costs – lost sales, restocking, returns, wasted hours, customer problems
  - Improve visibility, product development cycles, and velocity

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## Take-Aways

- **Let's talk**
- **What three ideas can you take away?**
  
- **Thank you**
- **Marilyn Gettinger, C.P.M.**
- **New Directions Consulting Group**
- **908-709-0656, [mgettinger@aol.com](mailto:mgettinger@aol.com)**

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