



# Building a Smarter Supply Chain

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## Several years ago, we saw change coming

**No one envisioned it would come at the rate and speed we've seen over the last two quarters.**

- Financial markets redefined globally
- Reverberations affected every other industry
- Impact still revealing itself in markets around the world



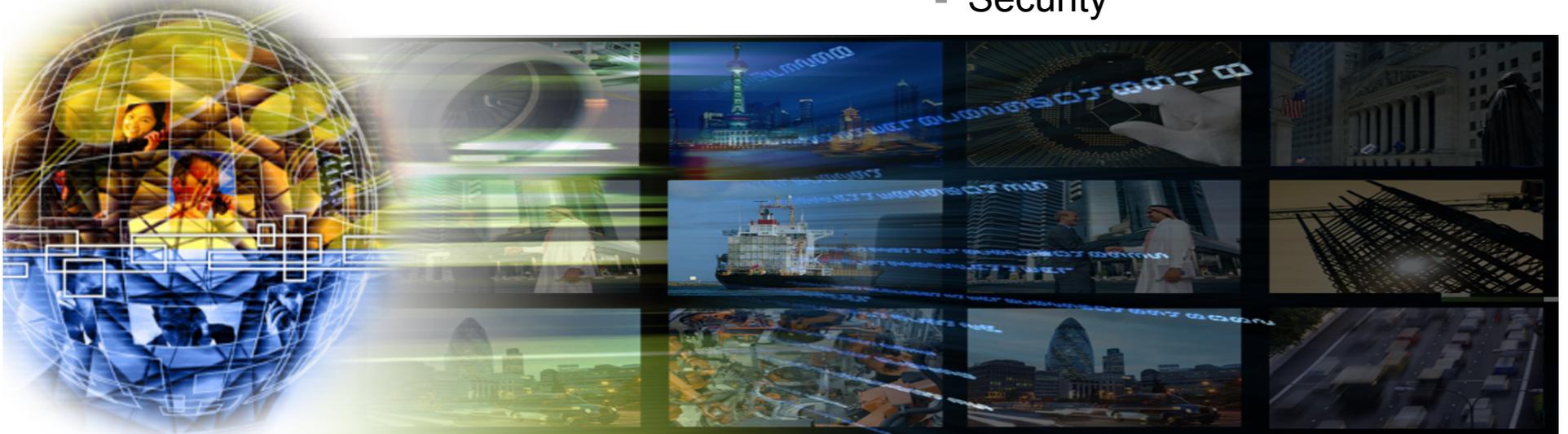
## Constant change is the reality of global integration

The world is connected

**ECONOMICALLY**  
**SOCIALLY**  
**TECHNICALLY**

A series of shocks

- Financial crisis
- Climate change
- Energy geopolitics
- Global supply chains
- Security



## Current changes in economic environment affect all global markets...

### Disruptive

- Unprecedented constraints on access to credit and capital
- Falling demand, increased price sensitivity
- Disruption in supply chains

### Transformative

- Restructuring of industries
- New regulatory regimes
- Stress on global inter-dependencies

*Typical cost management will NOT be enough*

*Firms must examine working capital & investment*

**Urgency for real change is a plus: people want it**

## ...At the same time, broader forces are at work

Our world is getting:

**Smaller &  
Flatter**



- Pervasive connections and communications
- Emerging markets
- Open trade

**Riskier**



- Systems-level complexity
- Viral spread of information
- Difficulty managing information overload

**Smarter**



- Instrumented
- Interconnected
- Intelligent

**Leaders will capitalize on new opportunities**

## Transformational leaders convert crisis into opportunity

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The key precondition for  
**REAL CHANGE**  
now exists



A period of discontinuity is  
**A PERIOD OF OPPORTUNITY**  
for those with courage and vision



**THERE WILL BE WINNERS**  
and there will be losers

# We globally integrated IBM to participate in the world's growth markets and improve productivity . . .

## Strong Geographic Growth

 Countries with IBM revenue growth greater than 10 percent in local currency in 2008



## 2008 Revenue by Geographic Region (excludes OEM)

**21%**  
Asia Pacific

**37%**  
Europe, Middle East and Africa

**43%**  
Americas

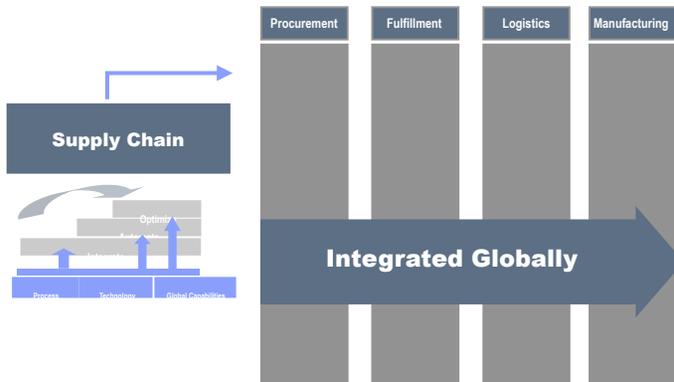
# IBM's Integrated Supply Chain – At a Glance

## Why?

- The ISC is accountable for \$40 billion, or roughly 50 percent, of IBM's total cost and expense
- ISC was a fragmented cost center and not mission critical
- Distributed and hard-wired to business units
- Pockets of integration in functional silos but no enterprise-wide common processes

## What we've done

- Established online links to suppliers, partners and clients, cutting processing time for average PO from a month to less than a day
- 95% of business partner orders now "touchless"
- In 2002, formed the Integrated Supply Chain as a single business unit
- Manage entire ISC – from procurement and logistics to strategy and planning -- on a global basis (moved procurement HQ from Westchester to Shenzhen, China)
- Consolidated transaction processing in global delivery centers in Malaysia, Bratislava, Spain and Brazil



*" IBM has been on the forefront of globalizing the supply chain...I think the interesting thing is the strategic implications. For IBM it says we are shifting, yet again, from being a traditional manufacturing business, to a solutions business." - Kevin O'Marah, AMR Research*

## IBM's Integrated Supply Chain - At a Glance

### How we've done it

- Tied ISC together with shared measurements to support end-to-end operation
- Focused on client satisfaction along with operational results
- Leveraged global scale – nearly 20K employees at 100 locations in 62 countries, speak 80 languages, 31K suppliers connected online
- In 2005, introduced world's first supply-chain business transformation outsourcing capability
- Applied supply chain principles to services business

### Impact

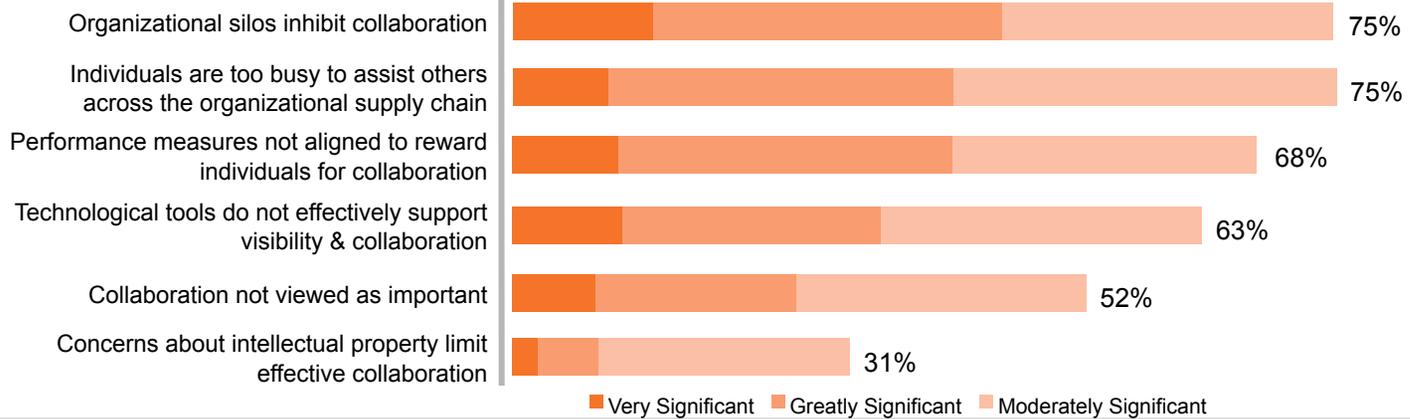
- Driving **EPS growth for 23 straight quarters**
- Averaging **\$3-5B in savings** every year for the last five years
- A 5-point improvement in margins since 2003
- Improving **sales force productivity**; now spending 38% more time with clients
- Turning orders 32% faster and **improving client satisfaction**





# Visibility: Supply chain visibility leads the CSCO's agenda

How significant are the following barriers to visibility & collaboration?  
(respondents answered very to moderately significant)

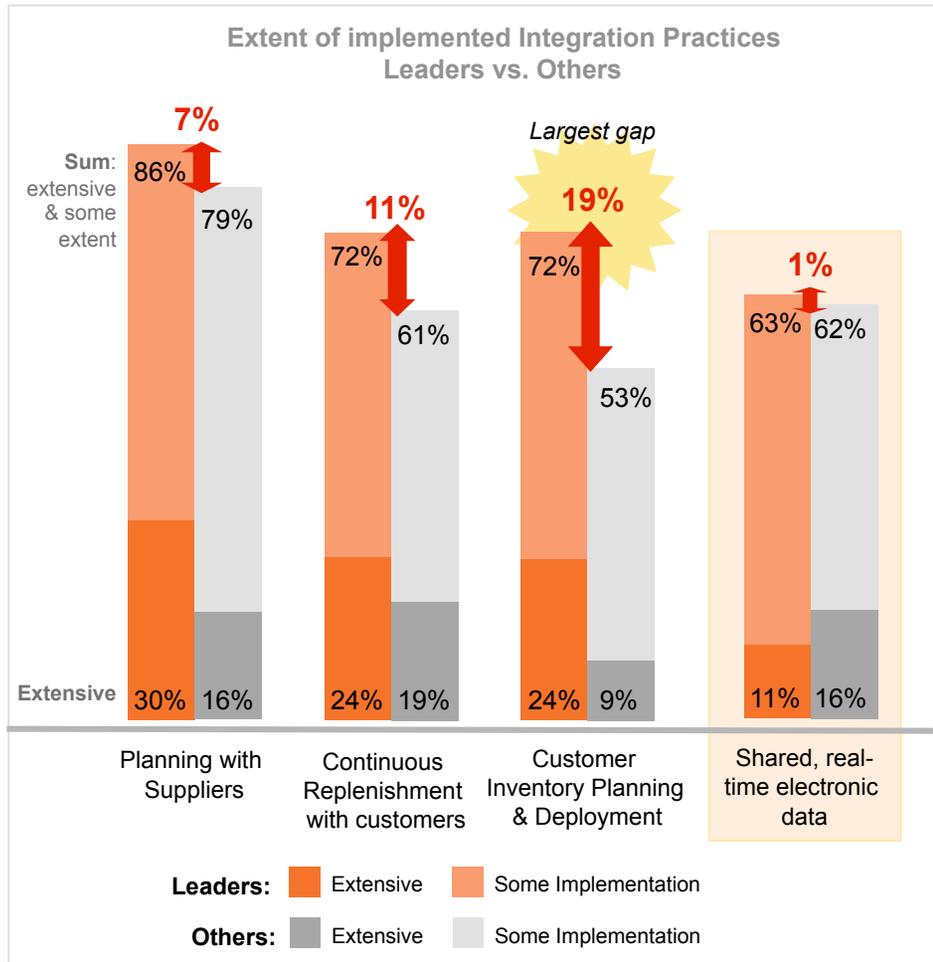


**As #1 Challenge – Why are we NOT integrating & collaborating more to increase visibility?**

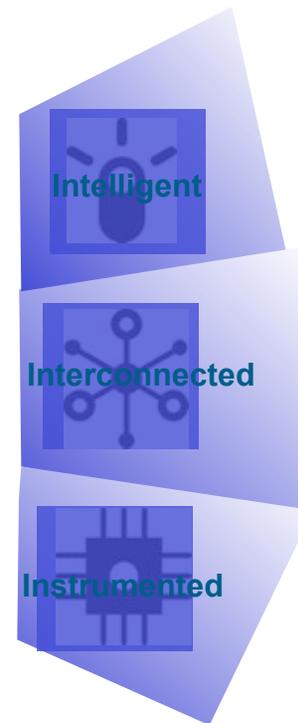
To what extent have you adopted the following practices?



**Future Outlook:** The Smart Supply Chain will require more connectivity, collaboration, and integrated processes to improve visibility among network partners as demonstrated by leaders

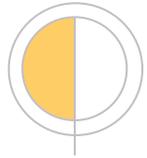


**Key Capabilities**

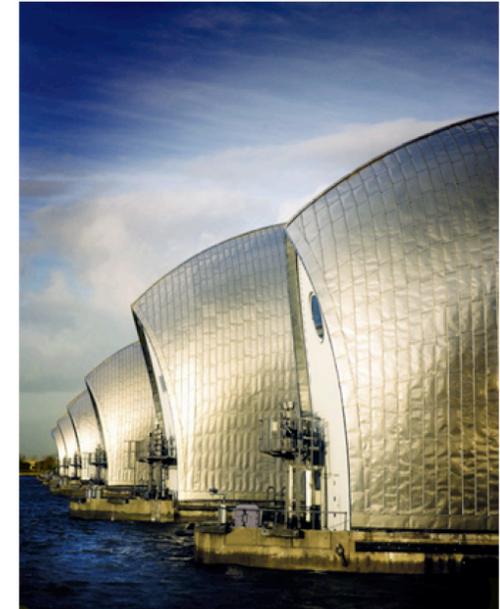
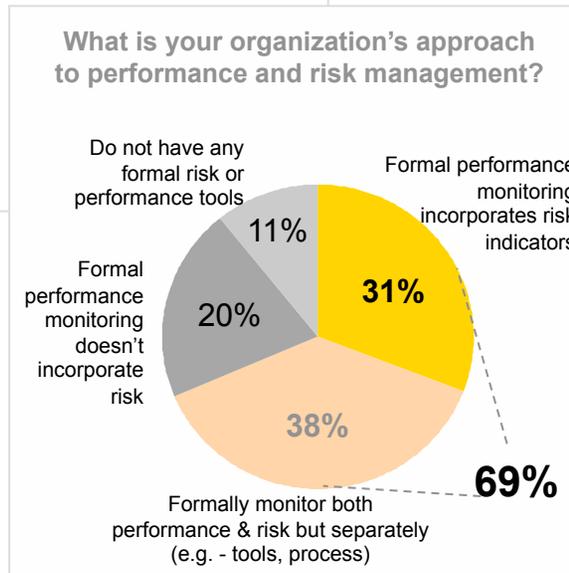
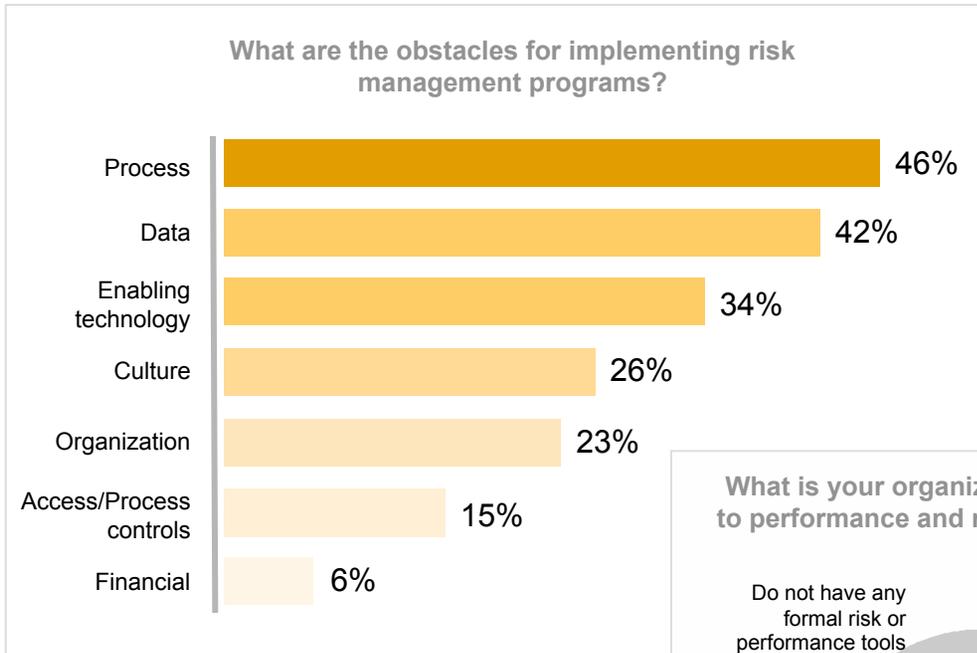


- **Decision-support based advanced analytics and optimization to automate and self-actuate supply chain transactions.**
- **Multi-partner collaborative platform**
- **Sense-and-respond demand & supply signal notification**
- **Smart devices & sensors (RFID) to capture real-time visibility:**
  - **Shelf-level replenishment**
  - **forecasts/orders**
  - **schedules/commitments**
  - **pipeline inventory**
  - **shipment lifecycle status**

\* Leaders determined based on respondents' ranking in AMR Research Supply Chain Top 25 for 2008



# Risk Management: Managing risks, both operational and financial, is a top concern of supply chain executives world-wide

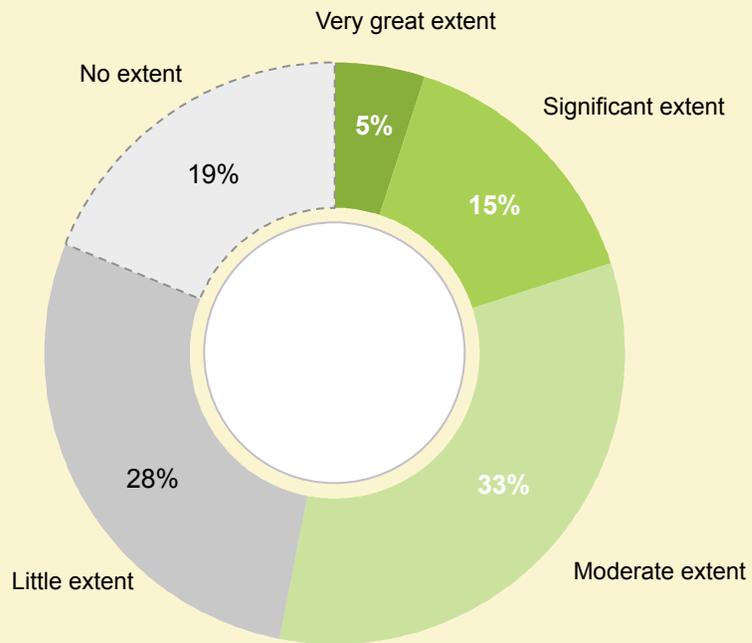


**69% manage risk in some fashion**



# Customer intimacy: Rising customer demands ranks as the third highest supply chain challenge

Extent of external demand collaboration with customers

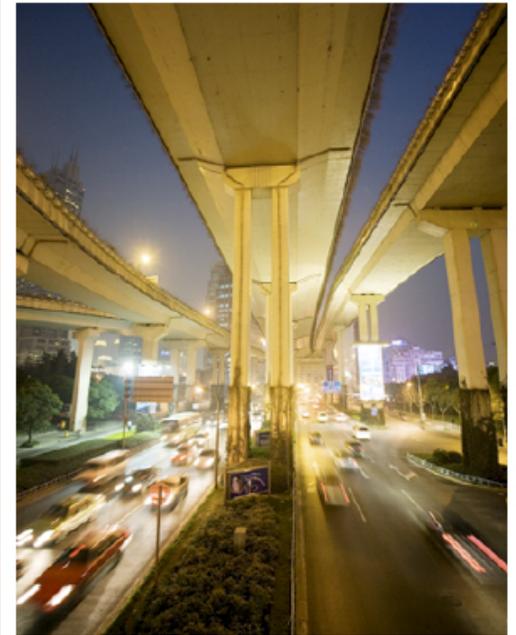


**Almost Half (47%) FAIL to Collaborate with Customers!**

What are the most significant challenges in bringing new products and services to market?

**67%**

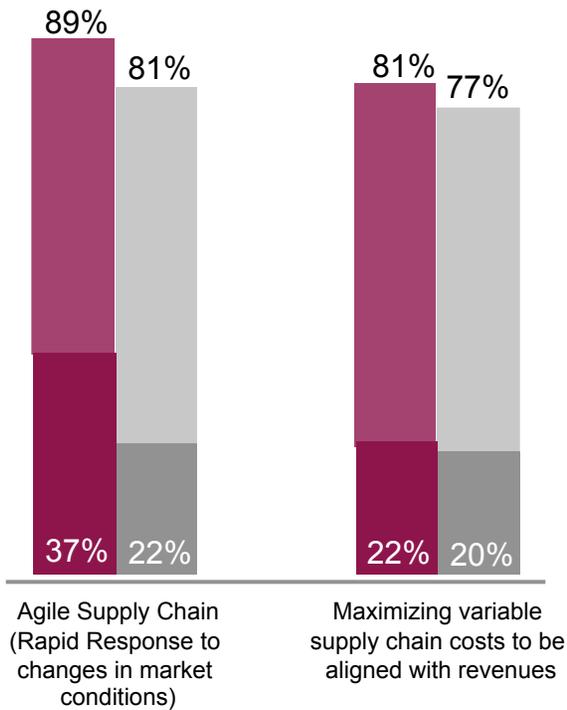
Correct identification of customer needs



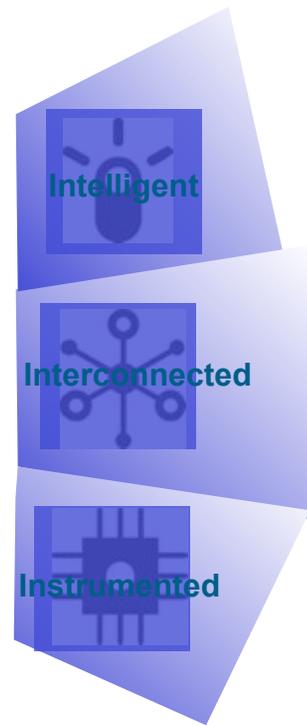
# Future Outlook: Responding to new cost pressures will always be a challenge. What will tomorrow bring?



Most have adopted these practices widely/comprehensively



**Leaders:** ■ Extensively adopted ■ Somewhat adopted  
**Others:** ■ Extensively adopted ■ Somewhat adopted



## Key Capabilities

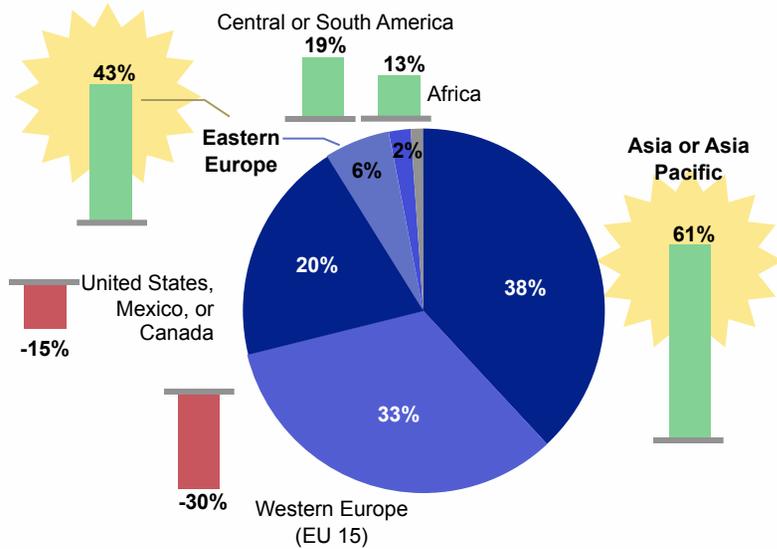
- **Simulation models and analyzers to evaluate flexibility factors: service levels, costs, time, quality w/ inventory synchronization.**
- **Variable cost structures that fluctuate with market demand**
- **Outsourcing non-differentiating functions to share risks across the global network**
- **Sensor based solutions to reduce inventory costs with increased visibility**

\* Leaders determined based on respondents' ranking in AMR Research Supply Chain Top 25 for 2008

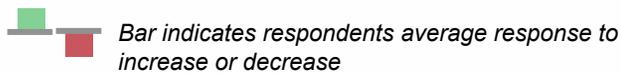


# Globalization Low cost country sourcing and operations have caused lead time, cost, quality and service level issues

Average percentage of direct materials sourced



What is the anticipated three year change in sourcing to the following regions?



The three year outlook indicates a continued increase in sourcing from low cost regions despite on-going and anticipated challenges

What are the major challenges that you have in regard to global sourcing & global operations?

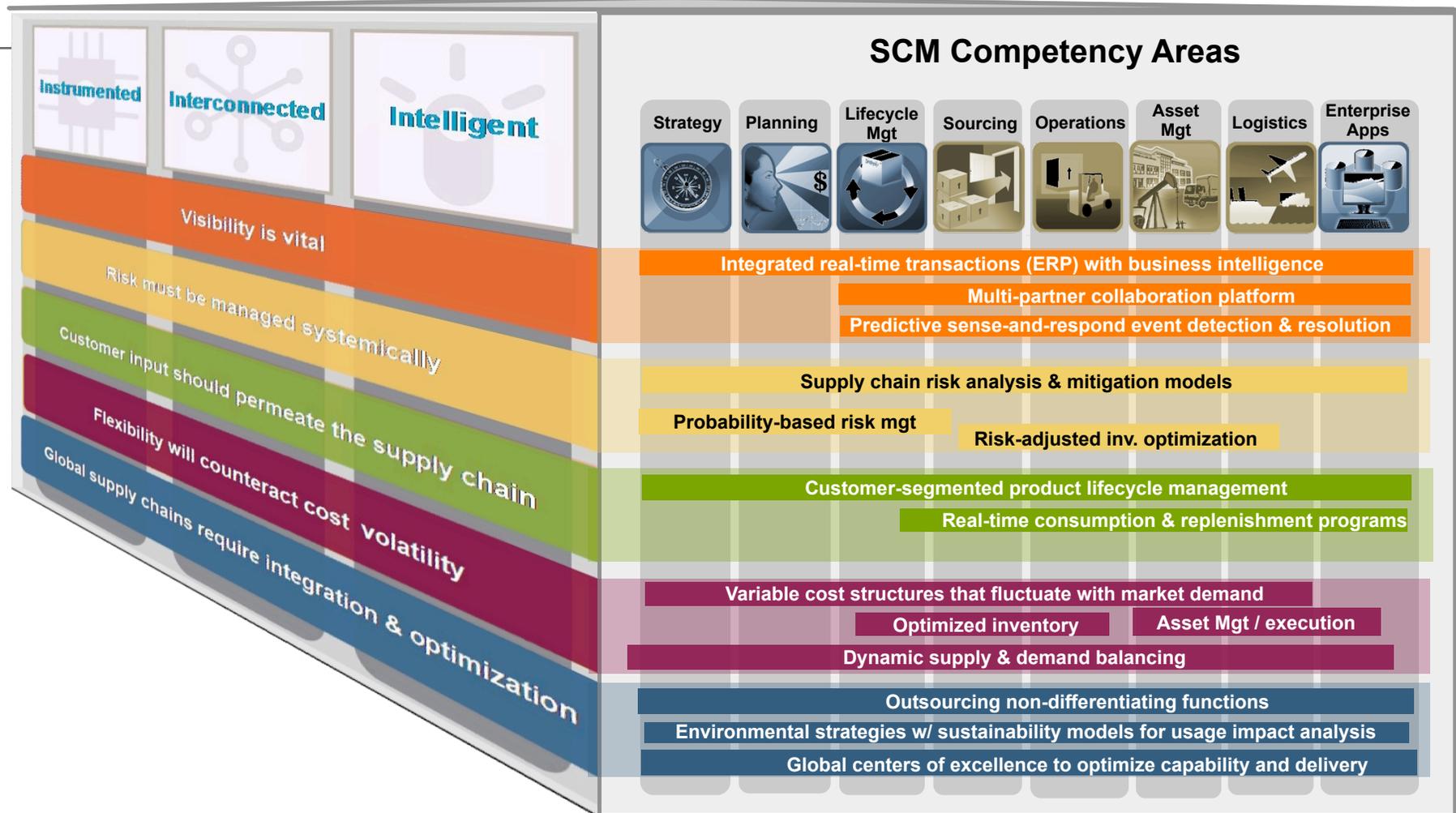


# And how does talent management fit into all of this?



**Building leadership talent was clearly the largest issue in managing world-wide talent**

# The “Smartmap” to the Supply Chain of the Future



Each company must plot their unique journey to smarter supply chain capabilities

# An Integrated Supply Chain for a Smarter Planet

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- High-performing, globally integrated enterprise that returns real value to investors



- Unparalleled integration across the entire business from customers, partners, supplier and service providers



- Flexible, sustainable supply chain practices that effectively and strategically drive growth



- Utilizing the best practices and techniques we prescribe to our clients for a smarter supply chain of the future

