Boston Scientific Corporation (BSC) Supplier Risk Management Program

Northeast Supply Chain Conference

October 1, 2007

Agenda

- Overview of Boston Scientific Corporation (BSC)
- Creation of Supplier Risk Management Program
  - Scope
  - Goals
  - Program Migration
- Program Approach evolution
  - 4-Step Risk Management Process
  - Tool
  - Example
  - Benefits/Metrics
  - Risk Alert and Communication System
- Next Steps

Overview of Boston Scientific Corporation

Boston Scientific is a global, multi-billion dollar company focused on innovative medical devices and procedures

Boston Scientific Corporation Profile

General Facts:

- Founded in 1979 with 38 employees, $2 million in sales. Now Fortune 500 company.
- World's largest medical device company dedicated to less-invasive therapies
- Portfolio of approx. 15,000 products, many with market leading positions
- The TAXUS® drug-eluting coronary stent has been the most successfully launched product in the history of the industry
- Acquired Guidant Corp. in April 2006 to become world's largest cardiovascular device company
- Corporate HQ: Natick, MA
- Regional HQs: Singapore, Paris, Tokyo
- Website: www.bostonscientific.com

Product Innovation:

- 9,790 Patents issued worldwide
- $1B Million invested in R&D ('05)
- $6B in new technology last five years

Financials:

- $7.8 Billion Revenue ('06)
- 29% CAGR[1] ('02-'05)
- $1.2 Billion Gross Income[2] ('06)
- NYSE: BSX

Demographics:

- 28,000 Employees
- Dedicated marketing and sales force in more than 45 countries
- 26 manufacturing, distribution and technology centers worldwide

1. Compound Annual Growth Rate
2. Excluding purchased R&D, litigation-related and other charges

Boston Scientific's mission is to improve the quality of patient care and increase health care productivity

Boston Scientific's Mission Statement

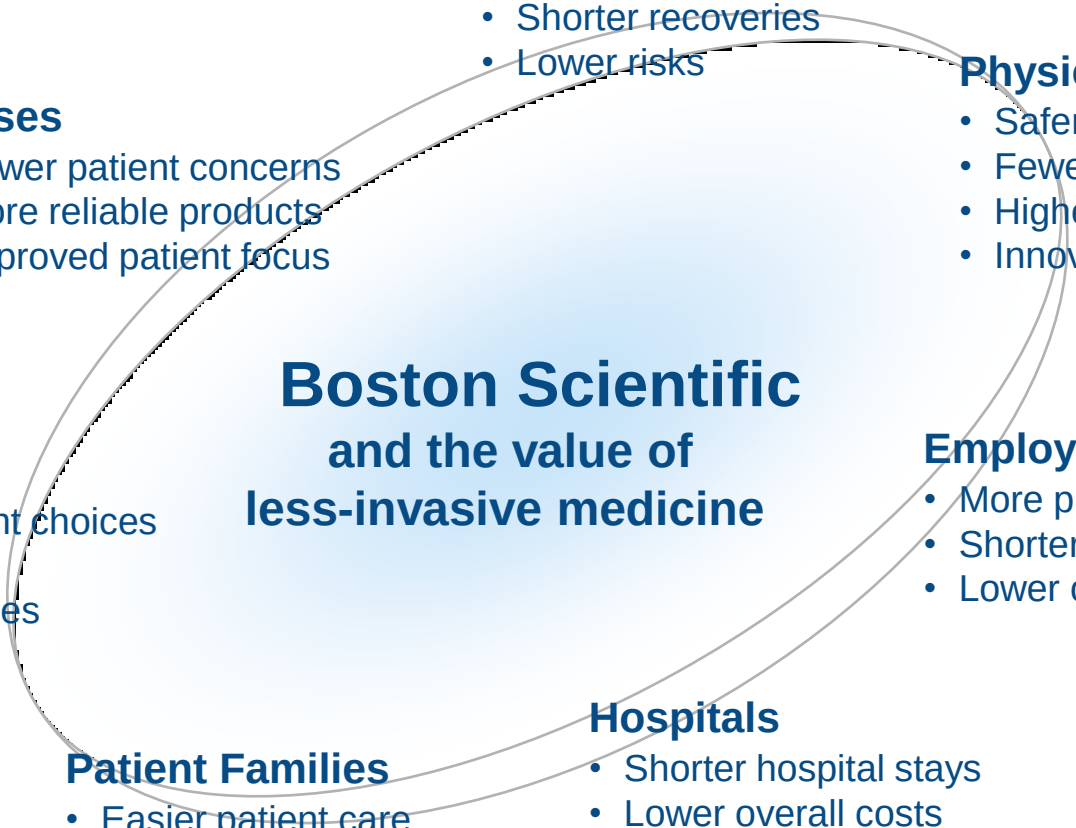
Boston Scientific's mission is to improve the quality of patient care and the productivity of health care delivery through the development and advocacy of less-invasive medical devices and procedures.

Boston Scientific's Quality Policy

"I improve the Quality of Patient Care and all things Boston Scientific."

Boston Scientific strives to provide value to patients and other stakeholders

Boston Scientific's Value



Patients
- Less trauma
- Shorter recoveries
- Lower risks

Physicians
- Safer procedures
- Fewer complications
- Higher productivity
- Innovative treatment options

Nurses
- Fewer patient concerns
- More reliable products
- Improved patient focus

Payers
- More treatment choices
- Lower costs
- Better outcomes

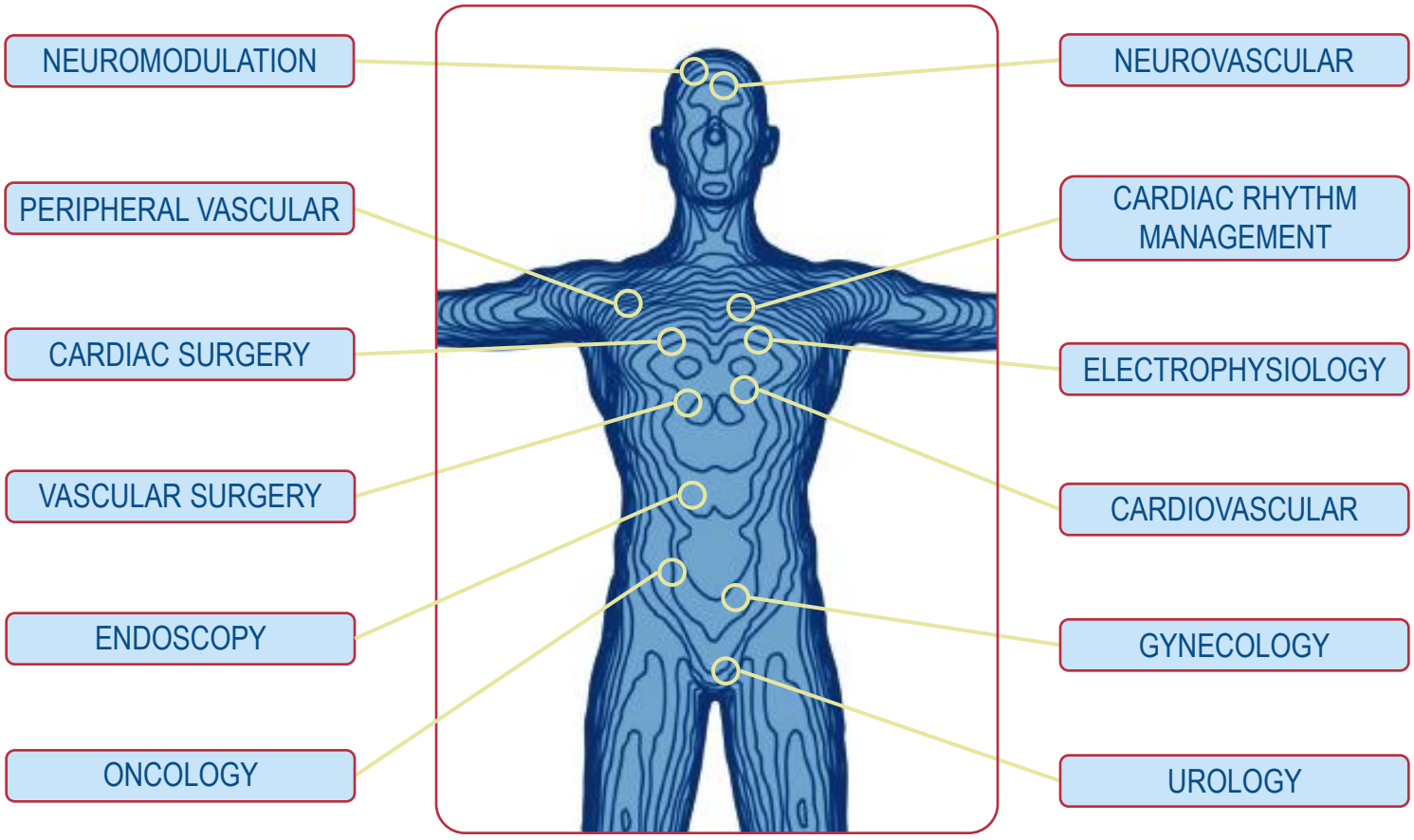
Employers
- More productive workdays
- Shorter recoveries
- Lower costs

Hospitals
- Shorter hospital stays
- Lower overall costs
- Less aftercare

Patient Families
- Easier patient care
- Shorter recoveries
- Lower stress

General claims of added-value (benefits) of less-invasive medicine as compared to standard surgical treatments and therapies.

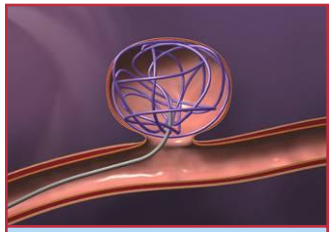
Boston Scientific products help treat a broad range of medical conditions throughout the body



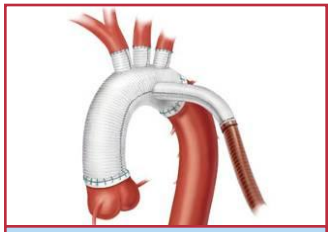
Over 25 years of Innovation has led to a broad portfolio of more than 15,000 products

Boston Scientific

Sampling of Boston Scientific's Product Portfolio

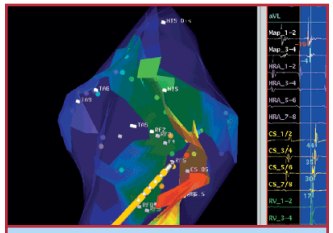

Detachable Coils


Balloons


Grafts


Enteral Feeding


Ablation


Cardiac Mapping


Pacemakers / ICDs

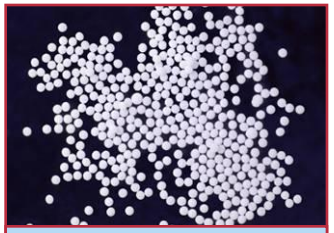

Stents

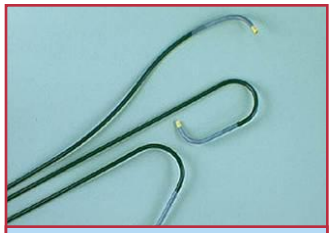

Stone Retrieval


Embolic Protection


Biopsy Systems


Peripheral Dilatation


Embolics


Catheters / Guidewires

Neurostimulation

Some risks can be anticipated…

But it's the out-of-sight risks which should be front-of-mind

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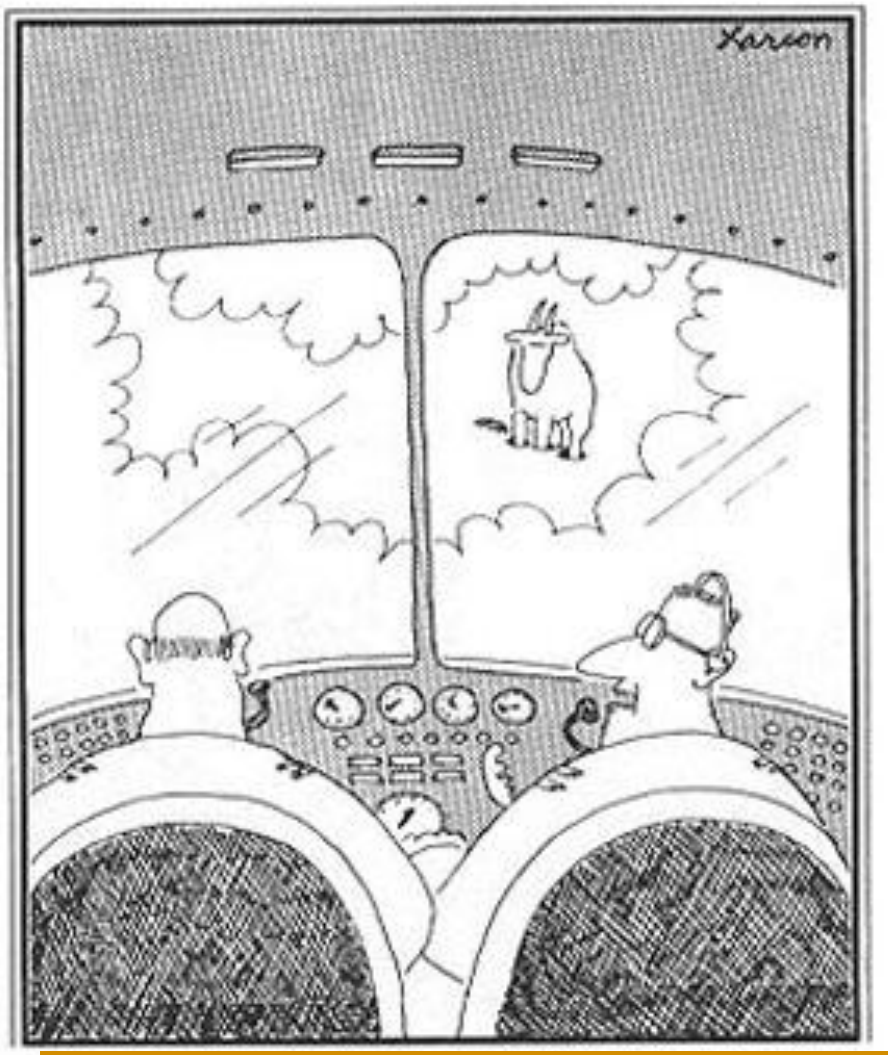
"Just stay in the cab, Vern… maybe that bear's hurt, and maybe he ain't."



"Say…What's a mountain goat doing way up here in a cloud bank?"

Definition

Supply Risk Management is a proactive and systematic process for cost-effectively identifying and reducing the frequency and severity of unwanted events in the inbound supply chain that have an adverse affect on the business.

Risk can also be the inability to capitalize on an opportunity. Risk and reward are the opposite sides of the same coin.

Creation of BSC Risk Management

Identification of Program Requirements

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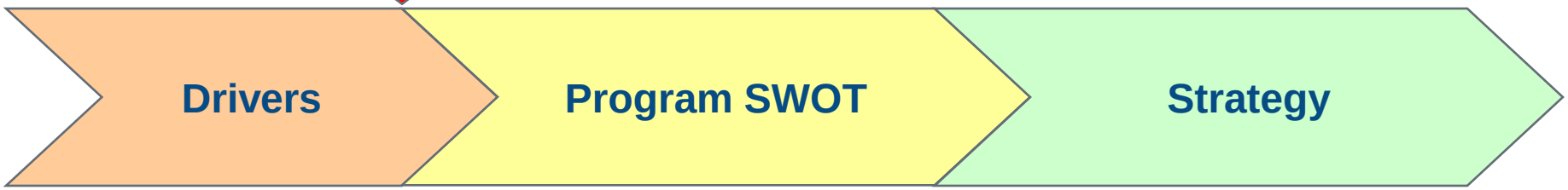
Risk Program Need



- Need to address unknown potential supplier continuity issues
- Reactive to Risk Events
- Desire for Industry best practices for Supply Chain/Global Sourcing

Strengths	Weaknesses
• Strong reactive risk management • Some disruptions averted	• Focus on quality and delivery only • Lack of coordination • No analytical rigor
Opportunities	**Threats**
• Benchmarking • Positive feedback for program creation	• Lack of resources • Unable to package risk data in a concise format

Processes/Tools

- Develop risk processes and tools to identify high risk suppliers
- Develop auto alert process to flag market trend, environmental and regulatory issues
- Manage/Coordinate Global BSC risk events, potentially impacting BSC continuity of supply

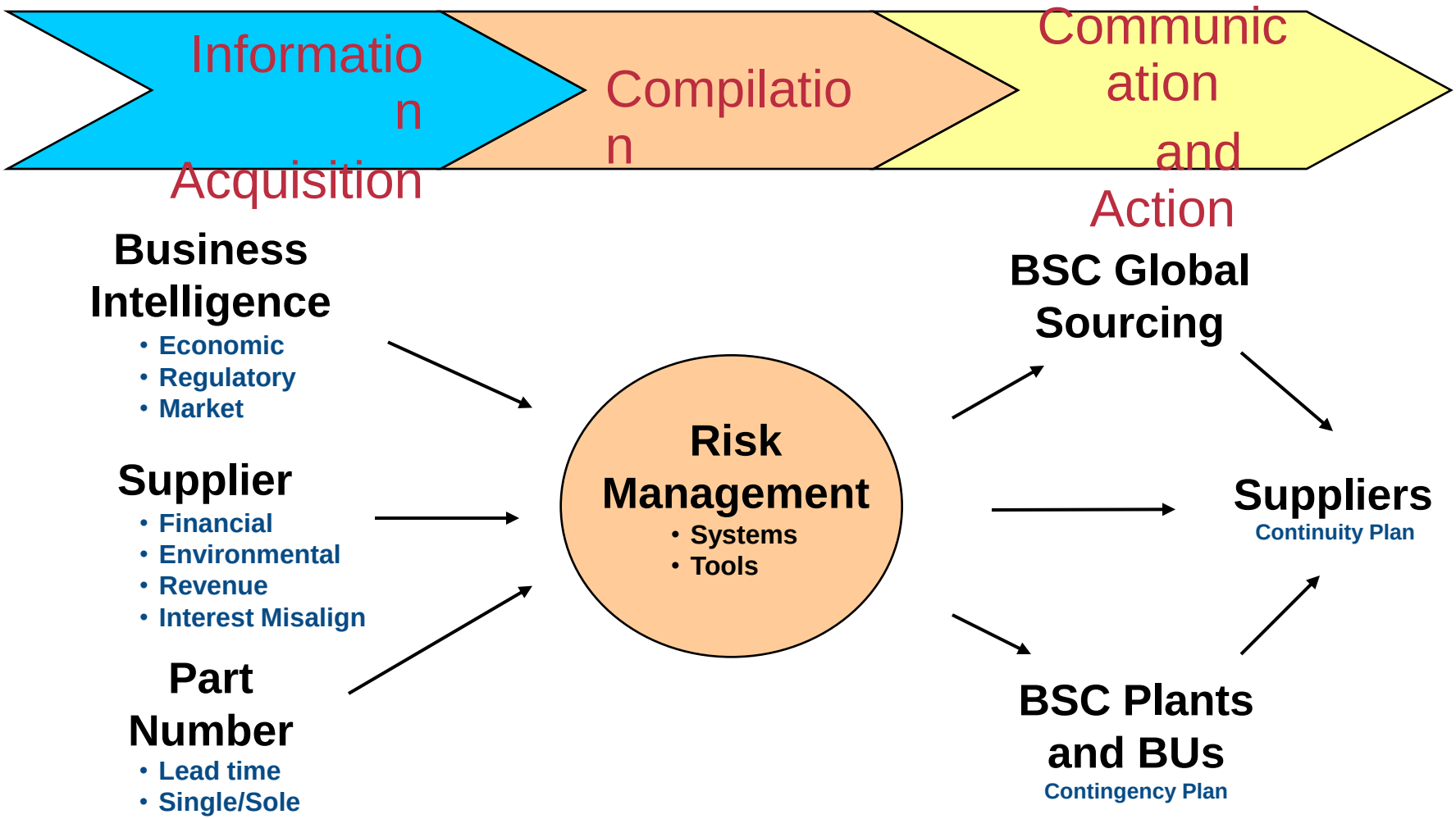
Resources

- ERP
- 3rd party providers

Organization

- Engage Plants, Global Sourcing, R&D & Corporate Business Units

Risk Program Design



Goals

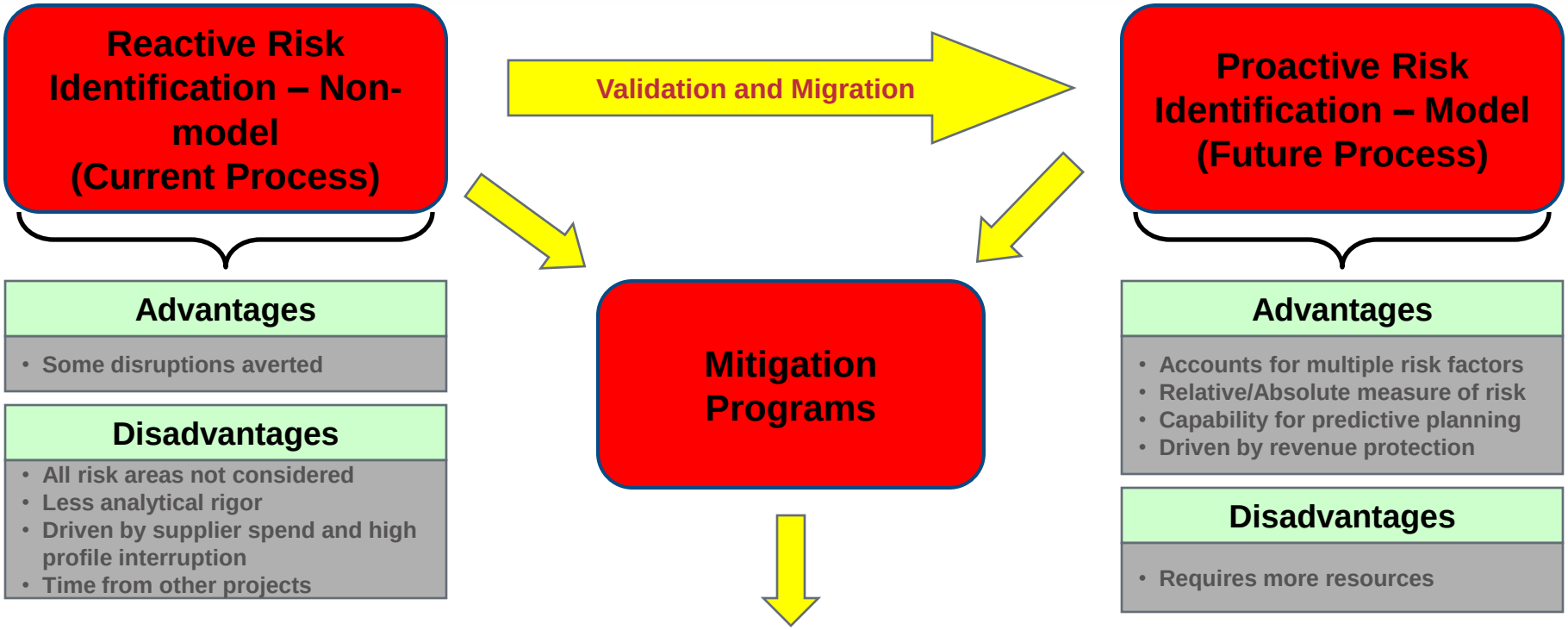
Program Goals

1. Be alerted to high risk suppliers that require attention using a variety of information and data
2. Identify and understand the specific drivers that increase supplier risk
3. Proactively manage and mitigate supply chain risk
4. Measure risk mitigation and impact

Scope:

- All BSC Direct Materials

BSC Risk Management Migration



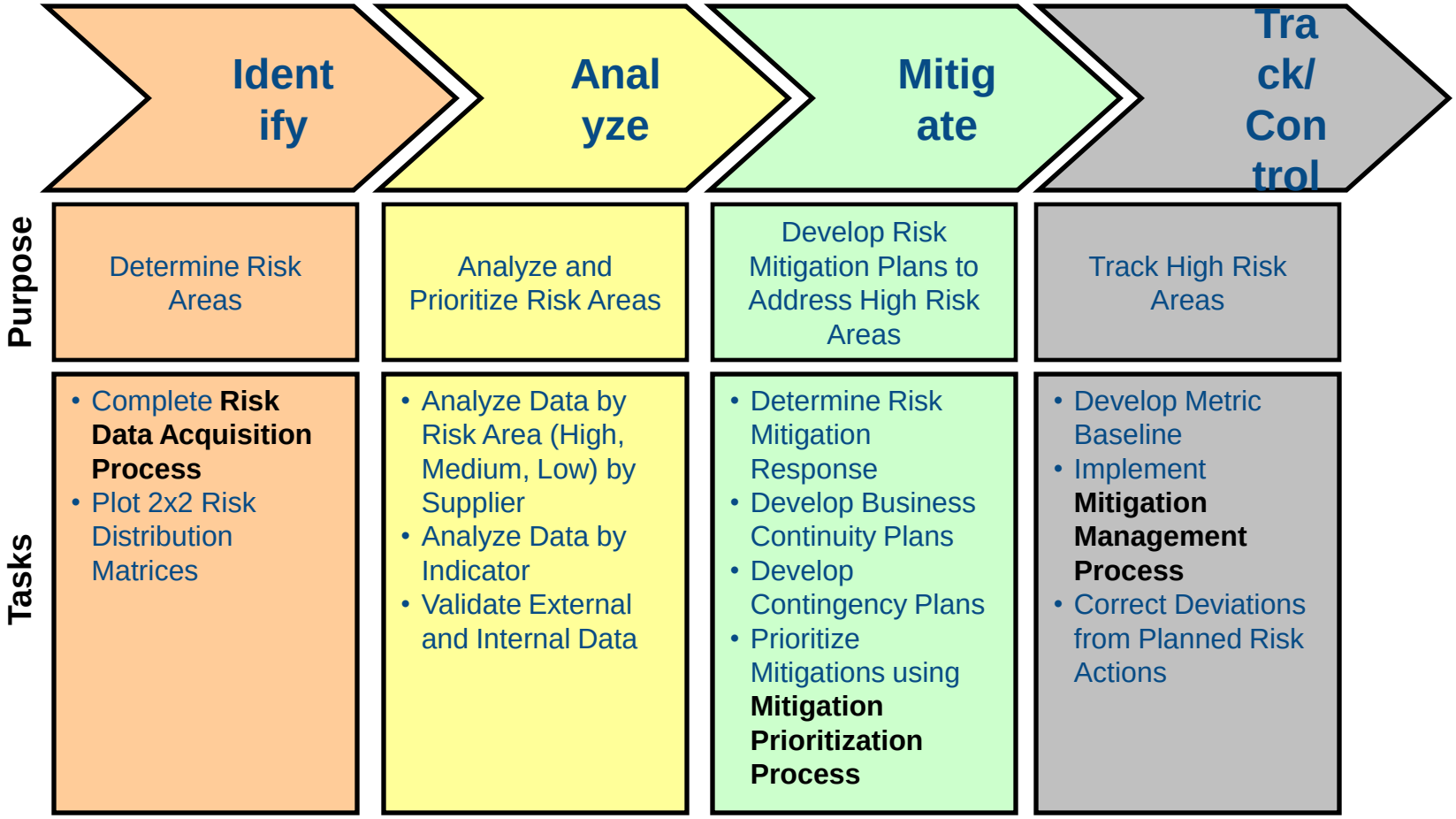
Risk Reduction: Competitive Edge

Program Goals	Current	Future
Be alerted to high risk suppliers that require attention using data		√
Identify and understand the specific drivers that increase supplier risk		√
Proactively manage and mitigate supply chain risk	√	√
Measure risk mitigation and impact		√

Program Approach

Risk Management Process

A formalized process is used to manage supplier risk.



Risk Tools

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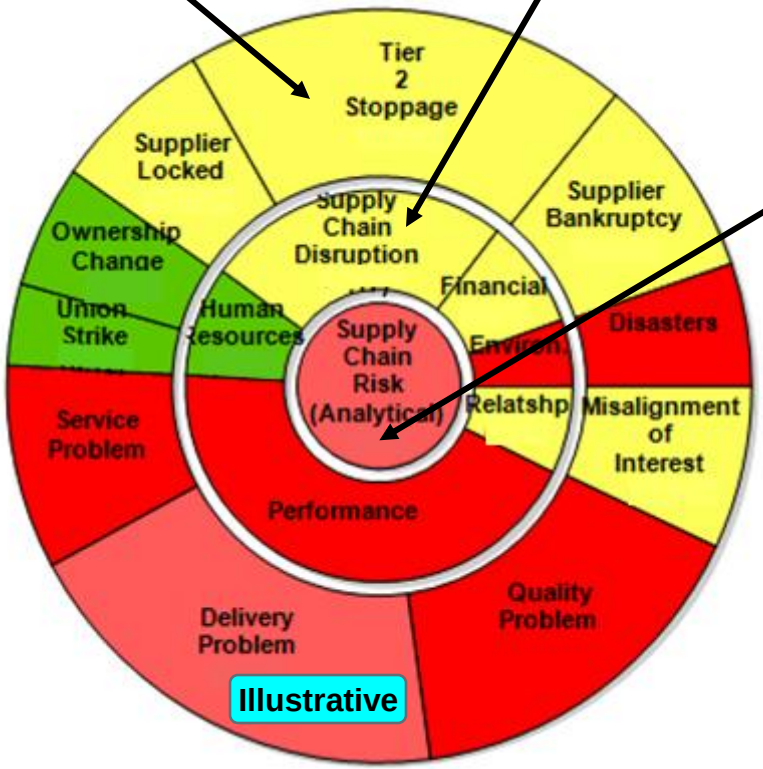
Data / Survey Inputs → Calculates → Risk Event → Calculates → Risk Category → Calculates → Overall Supplier Risk Probability Index (RPI)

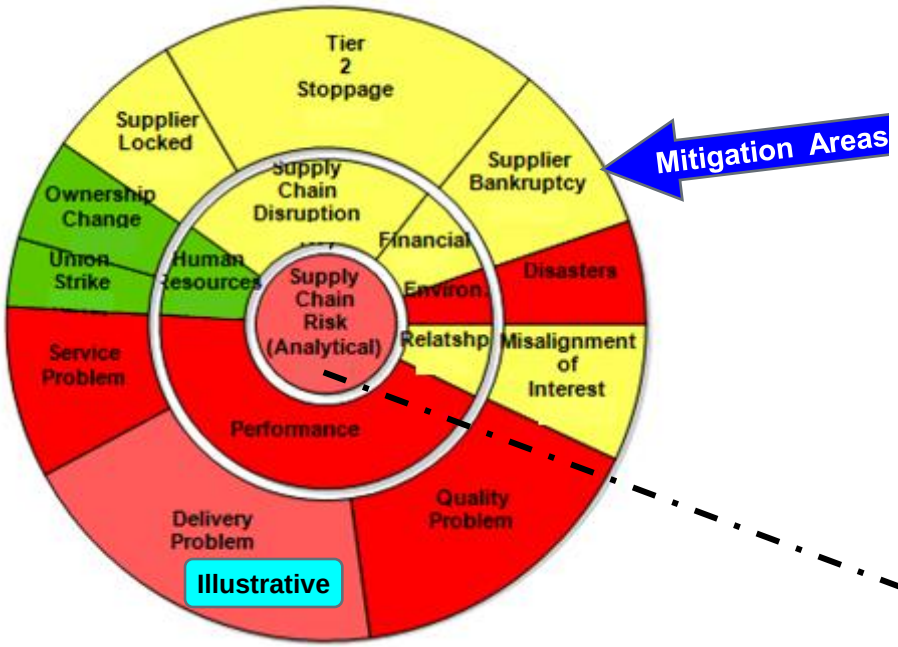


Supplier Risk Wheel

	Very High Risk
	High Risk
	Medium Risk
	Low Risk
	Very Low Risk

Risk Tools

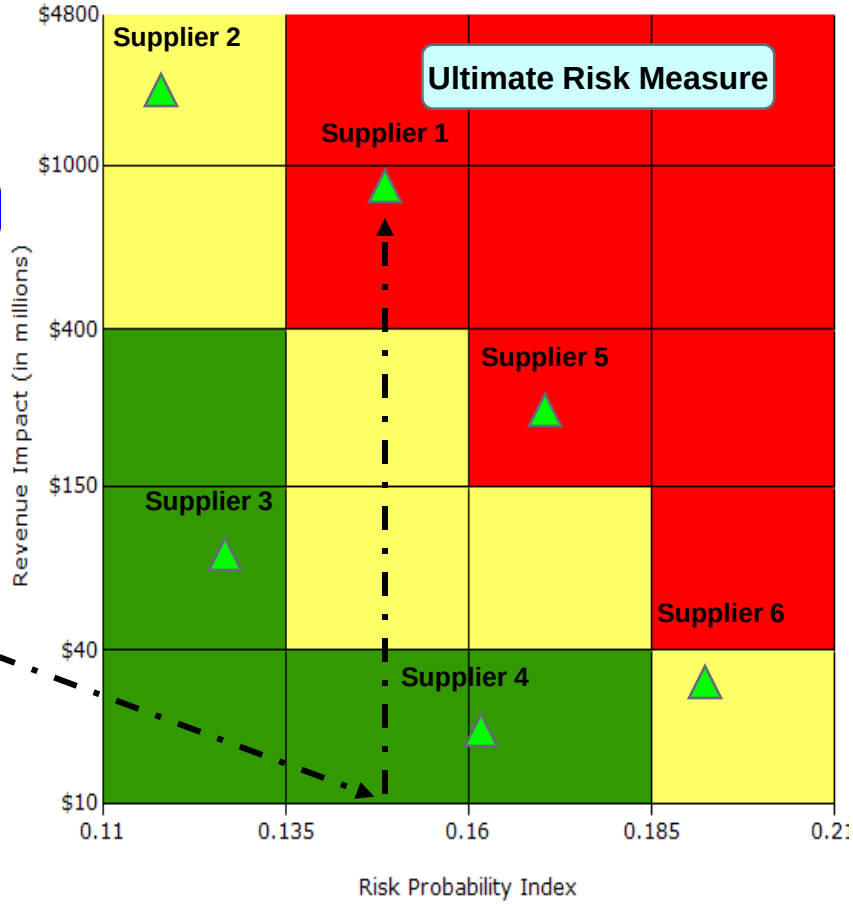
Supplier Risk Wheel



Note: Colors in the Risk Wheel do not correlate to the colors in the Risk Distribution Matrix

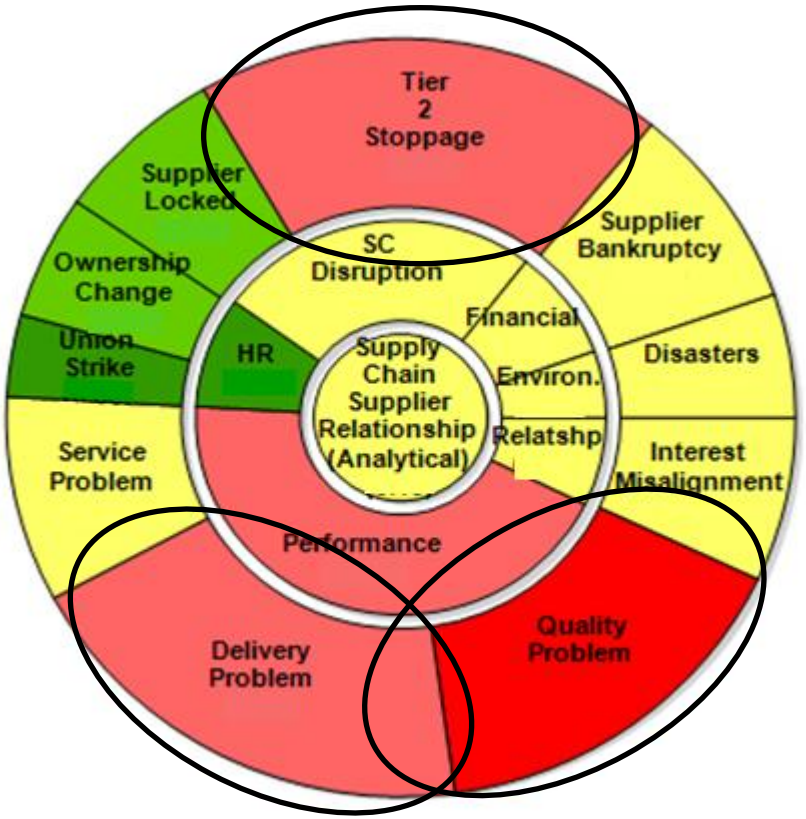
Purpose: Identifies High Risk Events and Risk Categories for Action

Risk Distribution Matrix



Purpose: Factors in Supplier Revenue to Measure Overall Supplier Risk

Output Example – By Supplier



Site	Rev @ Risk	Spend	# of Parts
Site 1	$180M	$23K	1
Site 2	$40M	$212K	4
Site 3	$36M	$11K	4
Totals:	$256M	$246K	9

Wheel Information	Buyer Validation
Quality • High likelihood of disruption based on process change • High # of SCARs	**Quality** • Site 1: 2 issues SCARs, RTV. Poor response • Site 2: No issues • Site 3: No issues
Service & Delivery • Low Eng support • Slow to respond • Low # of employees • Near capacity	**Service & Delivery** • Site 1: Capacity issue (extend LT); poor communication issue around delivery status • Site 2 and 3: None
Tier 2 Stoppage High likelihood of: • Sole source • Miscommunication • Raw material shortages	**Revenue at Risk** • Site 3: Surprised to learn the magnitude of revenue associated with this supplier

Summary – Organization does not fit the BSC supplier profile.

Supplier Comparison

Provides ability for users to compare the highest / lowest indicators between suppliers and understand best practices.

Supplier Comparison Report

Illustrative

Area	Supplier 1	Supplier 2	Supplier 3	Supplier 4	Supplier 5
Supplier revenue from medical devices	2.0	1.0	2.0	3.0	3.0
Quality	3.0	4.0	5.0	4.0	5.0
Supplier/BSC Alignment	1.0	1.0	2.0	1.0	2.0
Accreditation	3.0	3.0	3.0	3.0	3.0
Delivery	2.0	3.0	4.0	5.0	4.0
Capacity utilization	1.0	1.0	2.0	5.0	1.0
% Unionized	2.0	1.0	2.0	3.0	2.0
Plant Size	2.0	1.0	1.0	1.0	1.0
Service support	2.0	3.0	4.0	1.0	4.0

Best practice

Mitigation Management

Risk Mitigation Template

Rev. 6/29/07

Supplier:	
Site:	
Buyer:	
Commodity:	
Sub - Commodity:	
Commodity Manager:	
Brief Project Description:	
Project Title (AUTOMATIC)	-
Affected Risk Event (Current):	
Overall Risk Mitigation Strategy:	
Additional Comments:	
Current RPI:	
Post Project RPI:	
Current Revenue at Risk ($):	$0
Post Project Revenue at Risk ($):	
Cost Savings ($):	

Project Information

Measurement Information

Mitigation Plan

Task Description	Start Date	Original Due Date	Revised Due Date	Details / Comments	Performed by:	Percent Complete
Overall Project Timeline	0-Jan-00	0-Jan-00	0-Jan-00	Status - Green		100.0%
Planned Project Completion Date				Project Completed?		
Project Completion Date						
Planned Project Start Date						
Project Start Date						

Project Management

Automated update of timeline.

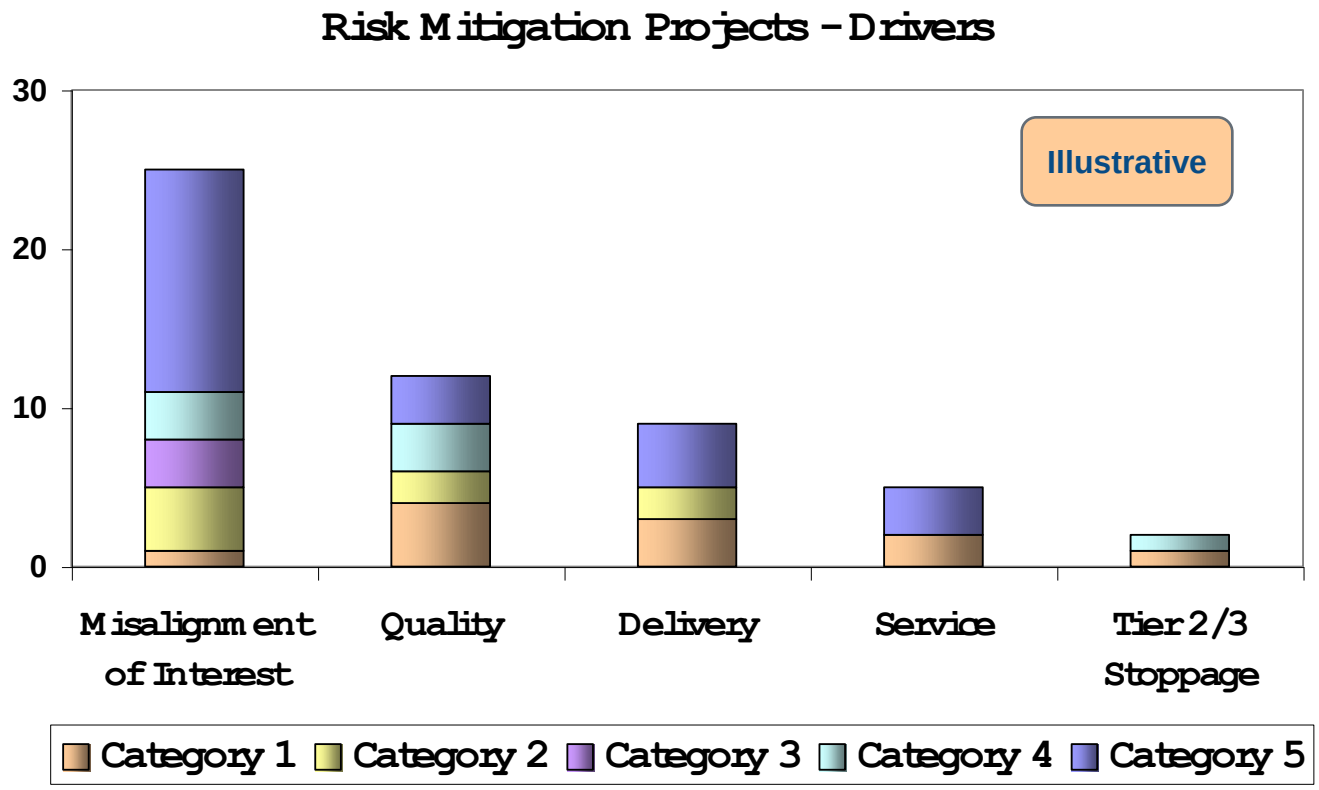
Benefits/Results

Quantitative Benefits

- Suppliers Participated
- Revenue Protected
- Parts Affected

Qualitative Benefits

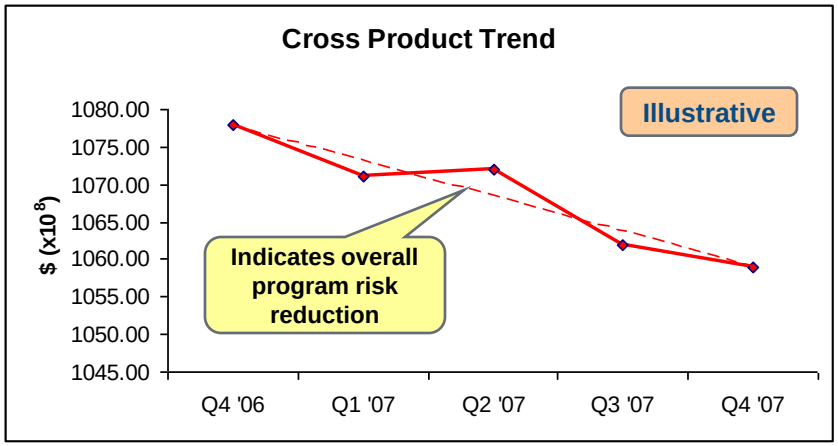
- Better Understanding of Relationships
- Less Misalignment with Suppliers
- Revenue vs. Spend Focus



Symptoms of Success

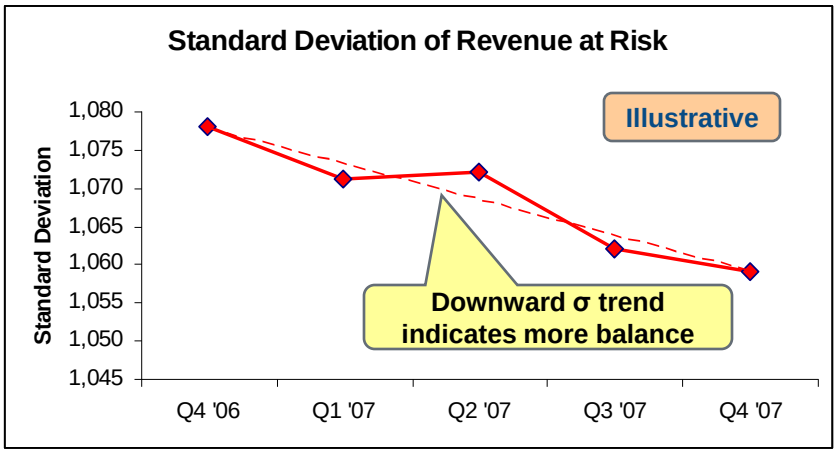
Cross Product (CP)

Measures Overall BSC Supply Risk



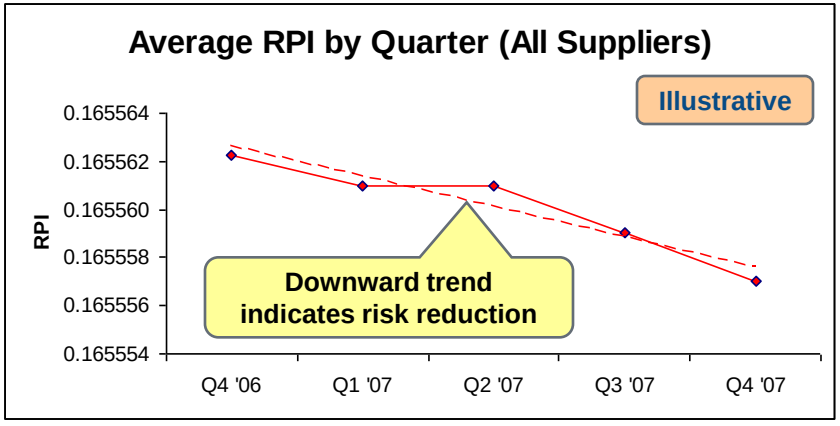
Std Dev of Revenue at Risk (σ_{RR})

Measures Impact of Multi-Sourcing



Risk Probability Index ($\overline{RPI}$)

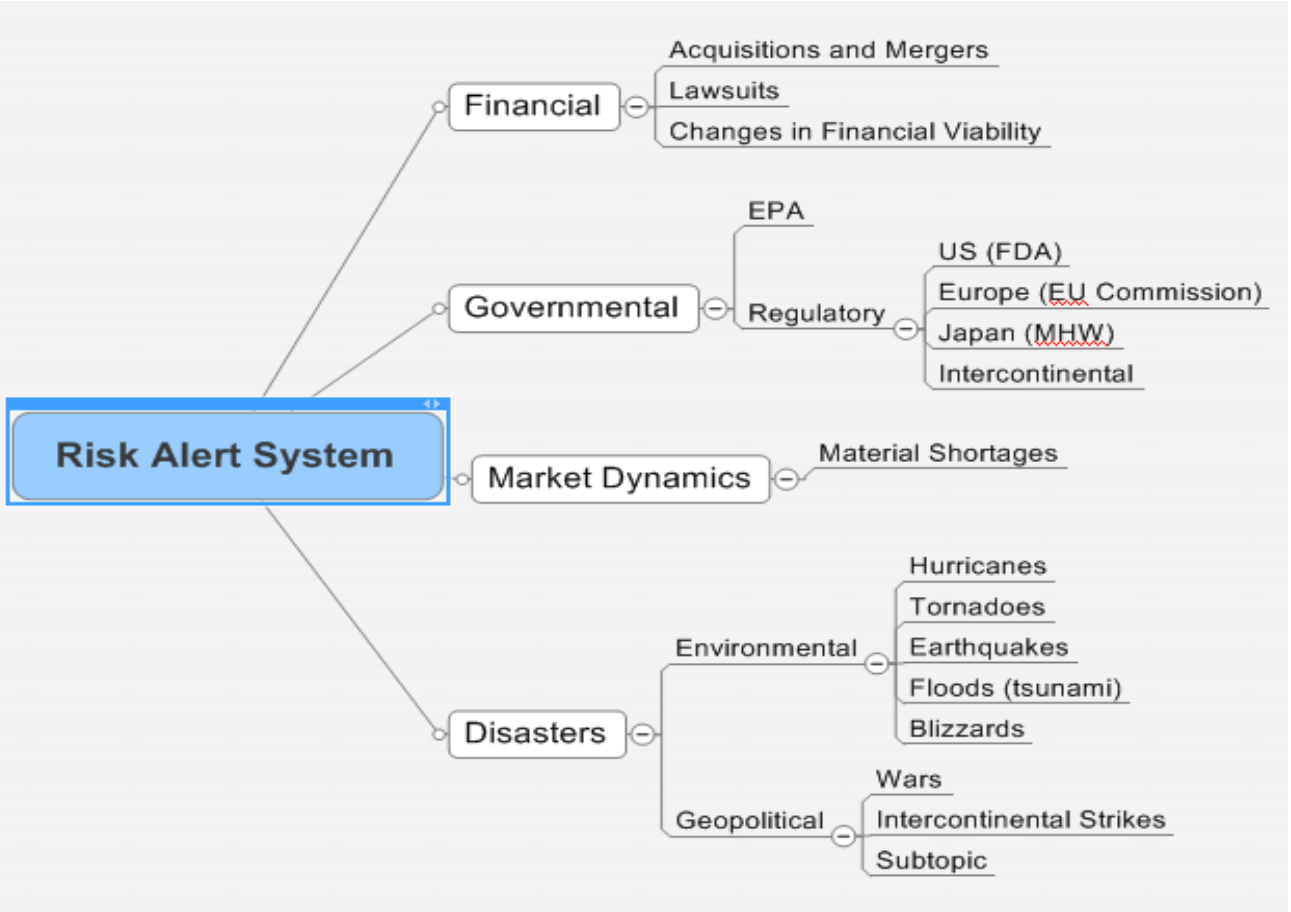
Measures Overall Risk Wheel Reduction for all Suppliers



Metric Interpretation

CP	RR	RPI	Interpretation
↓	↓	←	Increased Multi-Sourcing and Reduced Supply Risk
↓	↑	←	Larger Impact from Reduced Supply Risk than Single Sourcing
↓	↓	→	Larger Impact from Multi-Sourcing than Increased Supply Risk
↑	↑	←	Larger Impact from Sing Sourcing than Decreased Supply Risk
↑	↓	→	Larger Impact from Increased Supply Risk than Multi-Sourcing
↑	↑	→	Increased Single Sourcing and Increased Supply Risk

Risk Alert and Communication System (RACS)



- D&B
- New York Times

- EPA E-Newsletter

- Regulatory updates
- FDA updates

- Business Week
- Commodity Analyst
- Supplier communications

- Weather

- Foreign Travel Warnings
- State Department Fact Sheets

Risk Program Benchmarking

Boston Scientific

Benchmarks of a Best in Class Organization	BSC	Company 1	Company 2	Company 3	Company 4
Supply Chain Disruption Market Power Information Visibility Concentration Disruption Potential	✓		✓		
Relationship Influence Alliance Information Sharing	✓	✓			✓
Financial Health Size Asset Utilization Capitalization Profitability	✓	✓	✓		✓
Performance Quality Delivery Capability Cost	✓	✓	✓	✓	✓
Human Resources Turnover Union Disputes	✓				
Environmental Natural Disasters Market Dynamics Mergers and Acquisitions Regulatory and Public Announcements Transportation	✓-	✓	✓	✓	

- **Comprehensive in most areas**
- **Future focus on obtaining "Environmental" data**

Next Steps

Next Steps

- Further develop Risk Alert and Communication System (RACS)
- Develop part risk management program
- Enhance tools and templates
- Improve environmental and financial information