

Disaster Recovery in the Supply Chain

Council of Supply Chain Management Professionals

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Agenda

Introduction

Business Continuity Planning

Intel approach

Supply Chain

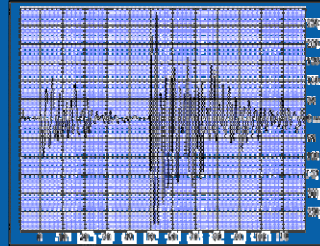
Making Business Continuity Plans Robust

Preparing a Drill

Additional Information



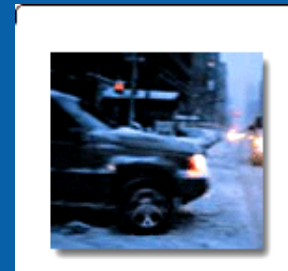
Earthquakes



Tsunami



Snow/Extreme Weather



Disaster can strike
anywhere, any time
Is your company ready?



Industrial Fire



Pandemic Avian Flu



Typhoons, Hurricanes



Business Continuity

Every business and organization can experience a supply chain disruption which can prevent normal operations from occurring

Remember, disaster can strike anywhere, any time.

Be prepared!

**It's not if a disaster will impact you...
it is WHEN will a disaster impact YOU !!**



Introduction

Ann Hepenstal

- Risk & Controls Manager, Materials organization
 - Responsibilities encompass risks that can impact our business goals
 - Business continuity, controls, ethics, ...
- 14 years with Intel
 - 2 years in this role
 - Variety of other project management and problem-solving jobs across Finance, marketing, and e-business

Materials organization

- Manages Intel's supply line for Direct Materials (going into our products) and Indirect Materials (other goods and services used by our operations)
- Drives sourcing, supplier selection, , cost savings, collaboration, business continuity, supplier management, and etc.
- Sister procurement organization, TME, buys capital equipment and tools for our manufacturing sites



Agenda

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"The events of 9/11 were a wake-up call to expect the unexpected. Employees, customers, stockholders and the investment community are all raising the bar on what is expected of corporations. Every Intel organization must make Business Continuity a core business practice."
- Craig Barrett and Paul Otellini, April 2002



Directive from Executive Staff, communicated after the attacks of 9\11\2001:

Each division and organization within Intel has a responsibility to define, document, implement and train their organization's employees on business continuity.



Intel's Business Continuity Goals

- Safety of employees, community and environment
- Protecting Intel's assets
- Sustaining operations
- Maintaining market share



Intel's Approach to BC

Several Players, working together to plan and respond:

Executive Staff keeps a pulse on BCP and disaster recovery efforts and progress

Corporate Emergency Operations Center (CEOC)

- Manages global issues that affect multiple sites
- Coordinates the corporate response to larger scope emergencies

Emergency Operations Center (EOC)

- Campus-level or site-level command post coordinating response to emergencies

Corporate Business Continuity Office drives corporate-wide BC expectations

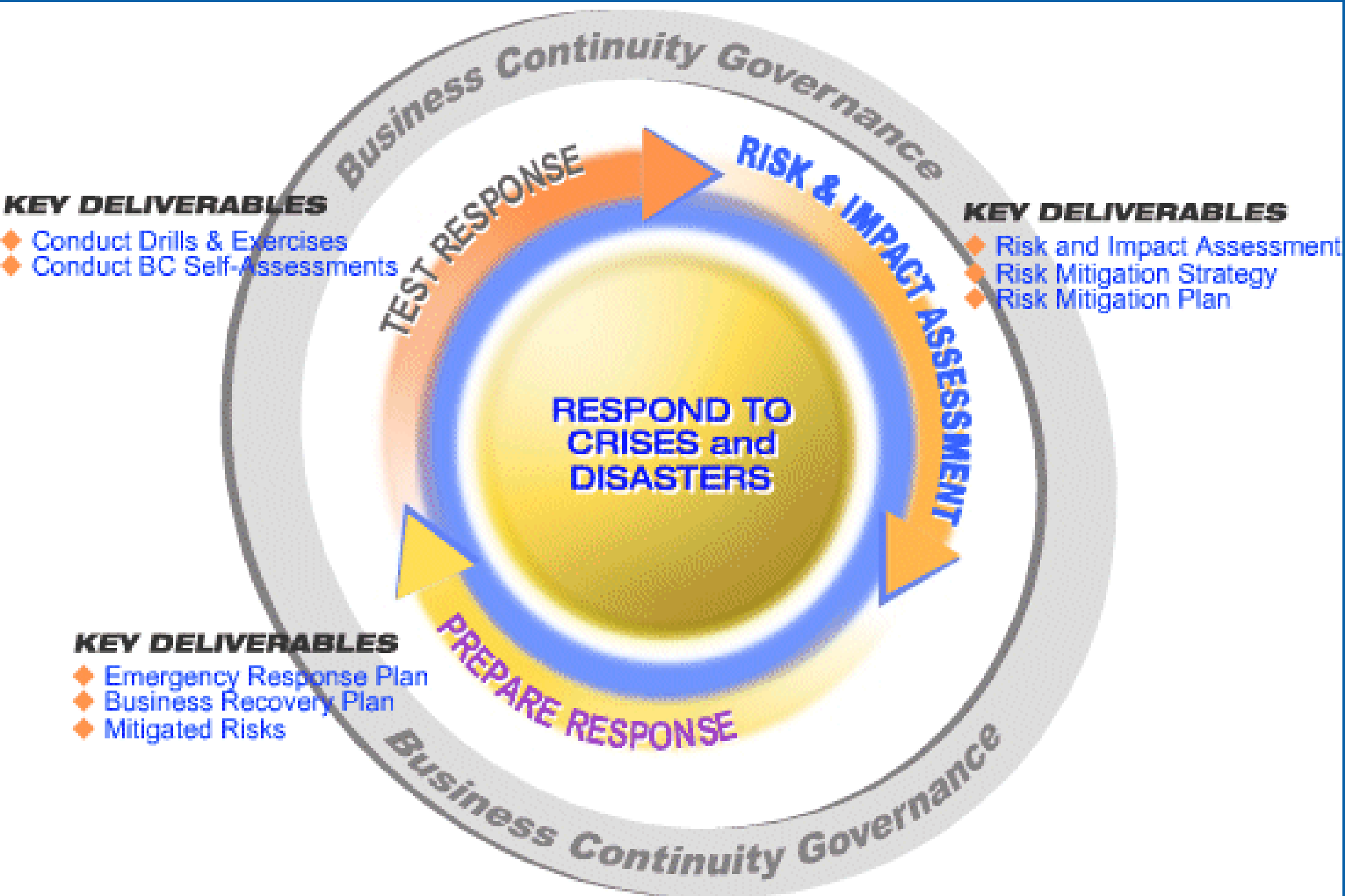
- Provides BC Program Methodologies to Intel organizations
- Helps Intel organizations with their BC programs to ensure effectiveness

BC Program Manager:

- Drive BC program across the organization—risk identification, BC plans, drills, training, etc.



Intel's Approach to BC



Agenda

Introduction

Business Continuity Planning

Intel approach

Supply Chain

Making Business Continuity Plans Robust

Preparing a Drill

Additional Information



Business Continuity and the Supply Chain

- Focus on restoring supply as quickly as possible
- Robust BC planning has become an imperative—streamlined and interconnected global manufacturing and supply chain
- BC methodology, infrastructure, and tools help the Materials organization's ability to quickly recover from a supply chain outage
- Our approach has matured over time



Materials Approach to BC has evolved over time

Sept 11, 2001
awakens
awareness

Phase I

- Safety & Security Taskforce
- Corporate drive to ensure cont'd biz operations

"Corporate Said"

2003

Phase II

- Materials Crisis management team, BC drills, BC plans

"Materials internalizes"

2004

Phase III

- Identified key vulnerabilities
- Developing BC plans for critical materials
- Proactive risk mitigation

"Move to proactive"

2005

Phase IV

- BCPs in place for critical materials and key vulnerabilities
- Management monitoring BC indicators & progress
- Teams internalized BC; it's part of their jobs

"Middle management 'gets it'"

2007

2006

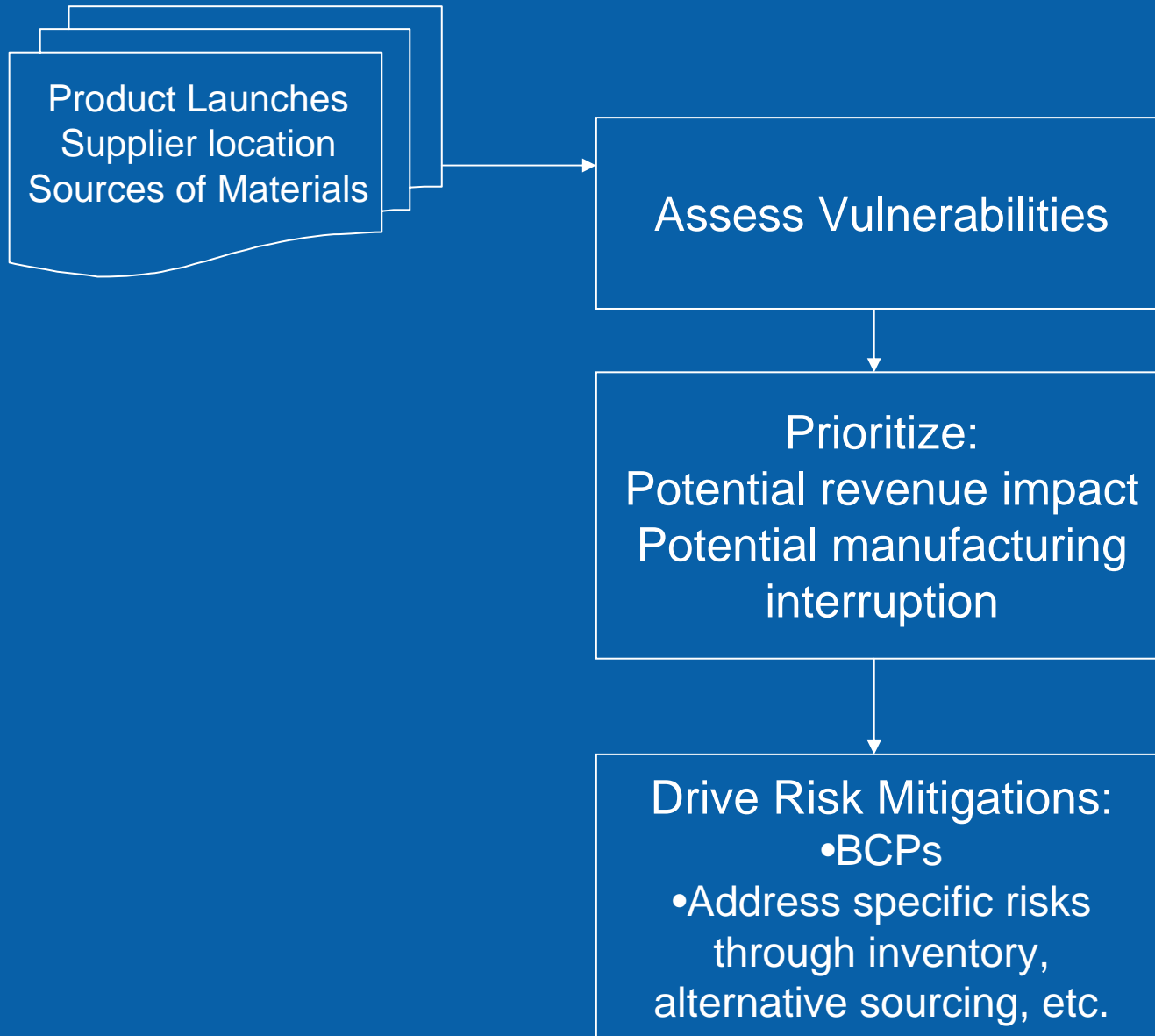
Phase V:

- Infrastructure enables efficient crisis response
- Strike the balance—resources vs risk

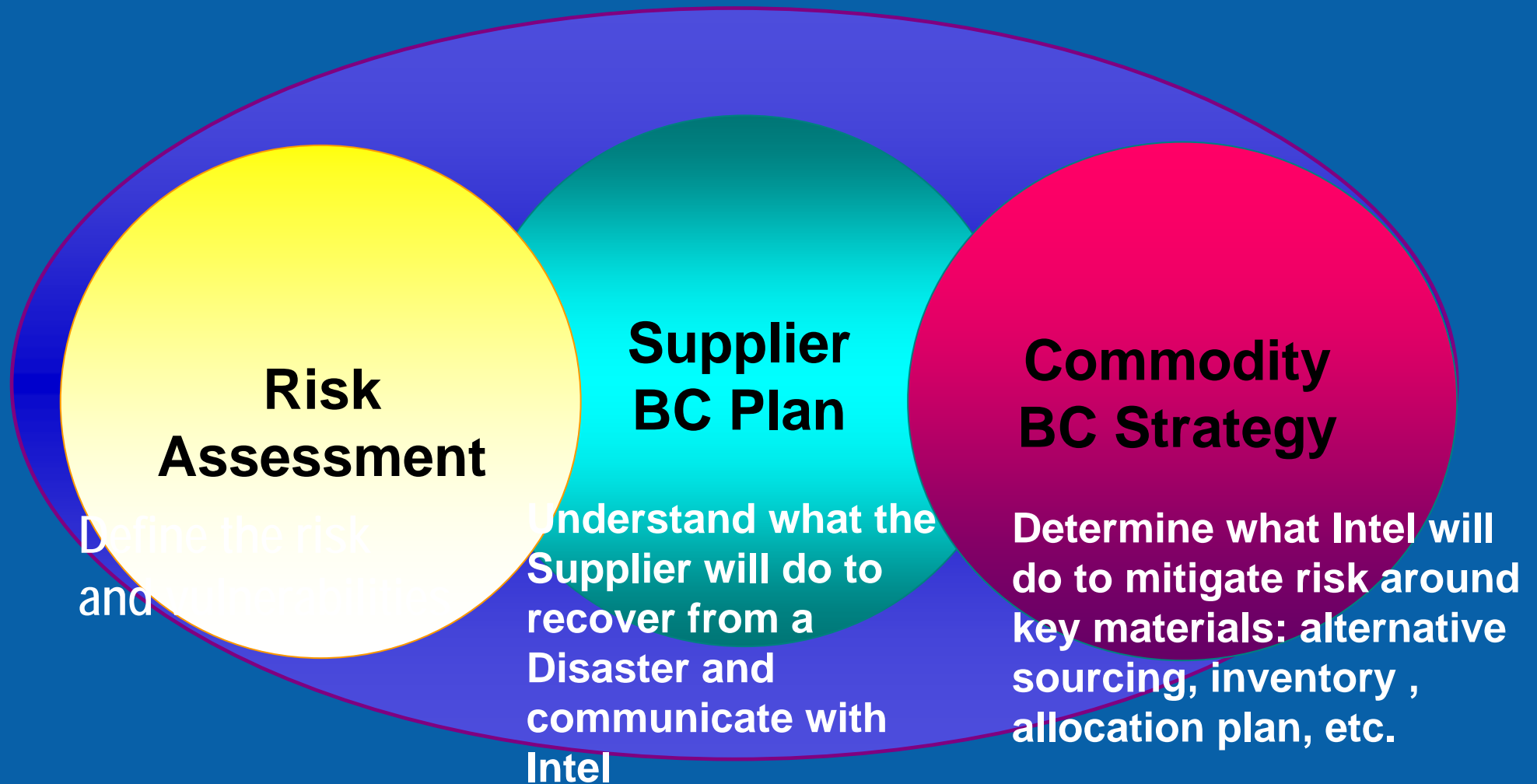
"Striking the balance"



Business Continuity in the Supply Chain



Business Continuity in the Supply Chain



Business Continuity and the Supply Chain

Materials BC infrastructure helps our team plan and respond:

- BC incorporated into the procurement team's jobs – supply line continuity
- BCP spec, defining the basic steps/approach to BC planning that the Materials teams should apply
 - Process to assess risks, prioritize them, drive risk mitigation where appropriate, etc.
- Drills to test our plans and identify improvements
- “Auto dialer” tool to contact members of the Crisis Management Team
- Reference information to speed evaluation of and response to a crisis.
- BC information for our suppliers at <http://supplier.intel.com/static/bc/>

Continuously assess, evaluate, and improve.



Business Continuity and the Supply Chain

*Is your organization ready?....Could your company answer these **FIVE** **pertinent questions?***

Do you understand your core business vulnerabilities or potential failure points during a major extended crisis?

1. "How do we redirect production and/or distribution capacity?"
2. "What capacity is available and how quickly can we redirect?"

Do you have emergency management structures and defined roles & responsibilities in place to respond to a crisis?

How do you procure direct and indirect materials? Do you have manual workarounds?

Keep your employees and community safe. Who is responsible for business continuity and crisis management at your site?

3. "What immediate action must we take to minimize loss and liability?"

Do you know your key support groups and BC plans? Are your plans in alignment so you would be able to continue operations?

4. "Do we need to prioritize customer demand? If so, which customers will be prioritized?"

What is the worst case financial loss and legal exposure? Do you have a key contact list for individuals required to respond to the crisis?

5. "How long will it take to resume operations?"



Agenda

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Preparing a Drill

Additional Information



BC Planning in the Supply Chain

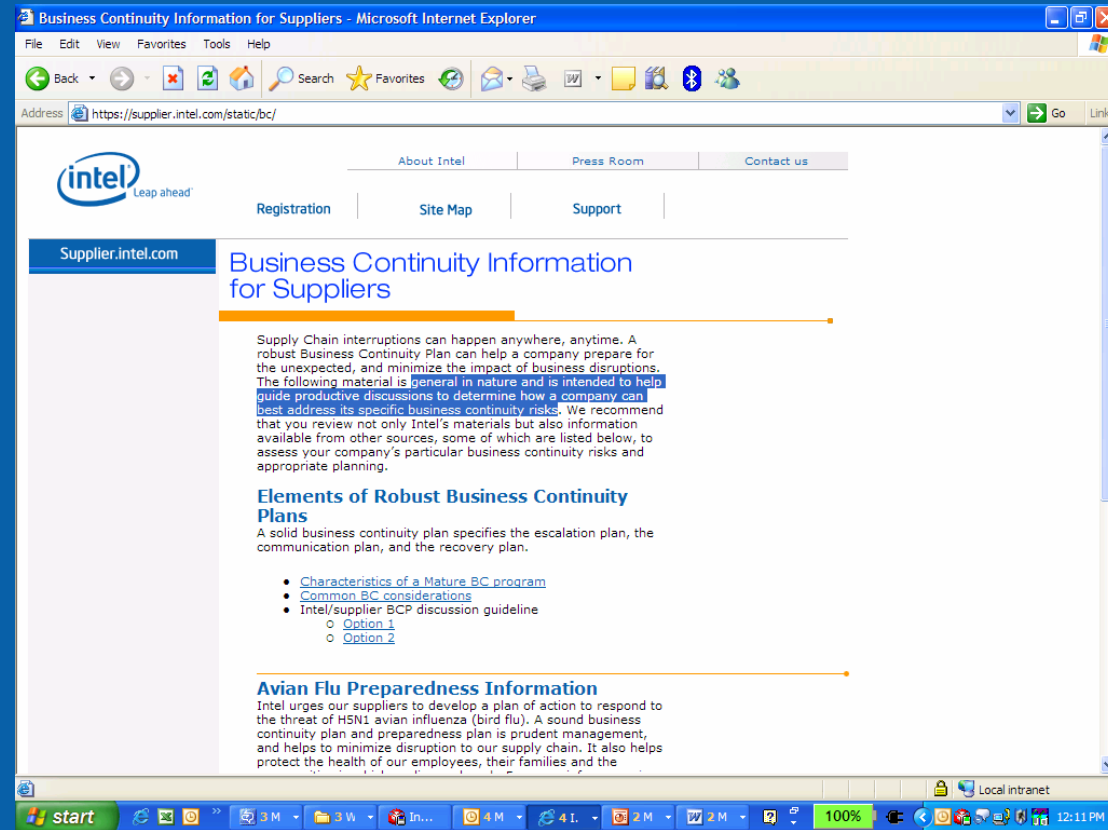
In order to recover our supply line—Intel's suppliers need to be able to restore their operations

- Supplier managers discuss the need for BC with suppliers
- Intel and suppliers develop crisis communications plans
- Intel may review supplier BCPs



Business Continuity Info for Suppliers

Discussion framework:
assist productive
discussions to determine
how a company can best
address its specific
business continuity risks



The screenshot shows a Microsoft Internet Explorer browser window displaying the Intel Supplier Business Continuity Information page. The address bar shows the URL <https://supplier.intel.com/static/bc/>. The page features the Intel logo and navigation links for 'About Intel', 'Press Room', 'Contact us', 'Registration', 'Site Map', and 'Support'. The main content area is titled 'Business Continuity Information for Suppliers' and includes a paragraph explaining the purpose of the information, followed by a section titled 'Elements of Robust Business Continuity Plans' with a bulleted list of links, and a section titled 'Avian Flu Preparedness Information'.

Business Continuity Information for Suppliers - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://supplier.intel.com/static/bc/>

intel Leap ahead

About Intel Press Room Contact us

Registration Site Map Support

Supplier.intel.com

Business Continuity Information for Suppliers

Supply Chain interruptions can happen anywhere, anytime. A robust Business Continuity Plan can help a company prepare for the unexpected, and minimize the impact of business disruptions. The following material is general in nature and is intended to help guide productive discussions to determine how a company can best address its specific business continuity risks. We recommend that you review not only Intel's materials but also information available from other sources, some of which are listed below, to assess your company's particular business continuity risks and appropriate planning.

Elements of Robust Business Continuity Plans

A solid business continuity plan specifies the escalation plan, the communication plan, and the recovery plan.

- [Characteristics of a Mature BC program](#)
- [Common BC considerations](#)
- Intel/supplier BCP discussion guideline
 - [Option 1](#)
 - [Option 2](#)

Avian Flu Preparedness Information

Intel urges our suppliers to develop a plan of action to respond to the threat of H5N1 avian influenza (bird flu). A sound business continuity plan and preparedness plan is prudent management, and helps to minimize disruption to our supply chain. It also helps protect the health of our employees, their families and the

<https://supplier.intel.com/static/bc/>



Intel to Supplier BC Discussion Framework

Crisis Escalation, Management & Communications

Do you have emergency management structures and defined roles & responsibilities in place to respond to a crisis?

Is there a defined communication plan to notify your employees, customers and suppliers of a crisis event?

What is the escalation path & anticipated timeframe from your crisis management team to Intel? Has this been exercised in a real event or business issue?



Intel to Supplier BC Discussion Framework

Business Continuity Considerations

What kind of business functions are considered critical and have BC plans associated with them?

What kinds of impacts are considered by your risk mitigation & recovery planning activities?

How does senior management support the BC program? What management review and corporate governance mechanisms exist?

Does your BC program ensure that all business processes/functions that are "critical" to your company are identified and documented?

Does the BC documentation cover the components that make/support critical processes to an "appropriate" level of detail to ensure single points of failure can be identified?

Does your BC program ensure that business interruption risks are understood, prioritized and their impacts are comprehended? Have your business groups taken steps to reduce risks? How frequently is the risk and impact assessment refreshed so that changes to your business are reflected in the BC program?

Does your BC program ensure the BC plans in place are well-documented and current? Do these BC plans provide an effective crisis response and ensure that critical operations continue to be operational during a crisis?

Is the BC plan documentation readily available to the people who need it and maintain it?

What kinds of exercises and drills are done to ensure the completeness of the plans? Is the organization prepared to perform effectively during a crisis?

Can your senior management confidently answer "Yes" when asked if everything reasonable and prudent has been done to be able to respond and recover from an emergency?



Agenda

Introduction

Business Continuity Planning

Intel approach

Supply Chain

Making Business Continuity Plans Robust

Preparing a Drill

Additional Information



Preparing a Drill

- Determine the objectives for your drill
 - What do you want to test?
 - What's the scope for your drill?
 - Will it be a surprise, or preannounced?
- Determine your drill scenario
 - Describe the crisis, what happened, what the impact was
 - Define the list of participants (your crisis management team, key partners, ??)
 - Define what you want the team to work on
- Run your drill
 - Various types: Virtual via phone, FtF tabletop drill, physical drill
 - Various logistics: brief the team and "assign homework," work through the scenario as a team, etc.
- Conduct a drill debrief
 - Capture key learnings, gaps, lessons learned
 - Assign owners to critical items to be closed
- Communicate results of drill



Business Continuity: Summary

A robust Business Continuity Program enables companies to recover their operations after a crisis

- Intel makes this a core business practice
- Intel expects robust BC planning from our suppliers
- Intel's approach to BC planning across our supply chain has matured over time

BCP is a continuous cycle that consists of:

- Identifying and assessing risks and their impacts
- Implementing risk mitigation activities
- Preparing emergency response and disaster recovery plans
- Conducting drills, testing plans and ensuring readiness



Business Continuity

“In preparing for battle I have always found that plans are useless, but **planning is indispensable.**”

Dwight D. Eisenhower



Additional Information

BC Information on Intel's supplier website: <https://supplier.intel.com/static/bc/>

BC Article in *Intel Technology Journal*:

<http://developer.intel.com/technology/itj/2007/v11i2/8-business-continuity/1-abstract.htm>

Capability Assessment for Readiness (CAR):

http://www.fema.gov/preparedness/slt_facts.shtm

FEMA: Federal Emergency Management Agency: <http://www.fema.gov>

On-line training: <http://training.fema.gov>

Disaster Resources: <http://www.disaster-resource.com/>

American Society of Professional Emergency Planners:

<http://www.getcited.org/>

Pandemic: www.PandemicFlu.gov This will help Americans stay informed about the government's preparations and learn what they can do to decrease their risk.



