



Proudly Presents...

Catastrophic Risks

Are there Gaps in Your
Risk Management Strategies?

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Overview

- Defining Catastrophic Risk
- Accepting the Potential
- Measuring Catastrophic Risk
- Managing Catastrophic Risk

1. Defining Catastrophic Risk

What is Catastrophic Risk?

How is a catastrophic event typically defined?

Common Descriptors

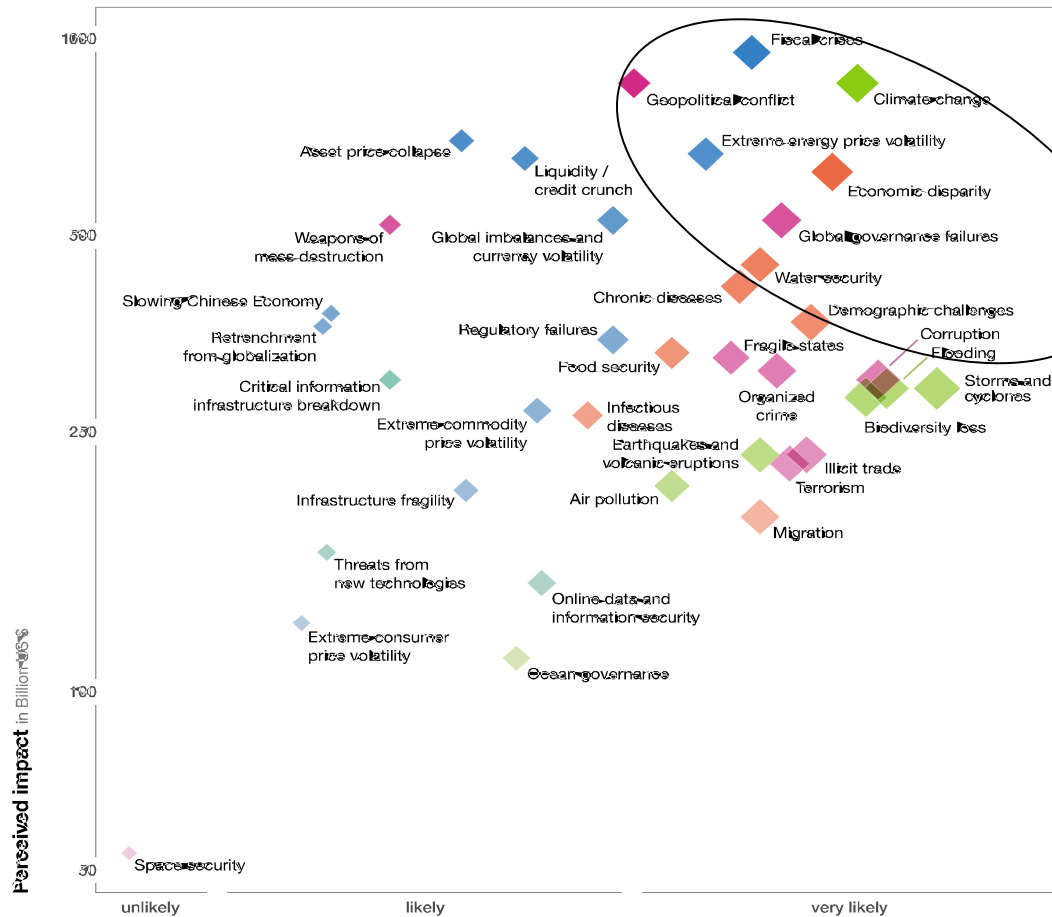
- Global
- Disaster
- Tragedy
- Natural hazard
- Accident
- Etc.



Common Events

- Earthquake
- Tsunami
- Hurricane
- Terrorist attack
- Plane crash
- Etc.

Global Catastrophic Risks



- Do the critical global risk issues rank highly in your organization?
- How are catastrophic risks unique to individual organizations?

Source: World Economic Forum, Global Risks 2011

Case Study

Example

2010 Deepwater Horizon spill

- Would you consider this a catastrophic event?
- Who was this catastrophic for?

Refining the Definition

Question

How do you define catastrophic risk for your organization?

- Definition is unique for different entities
- Must align with tolerable capacity
- Represents a worst case scenario

2. Accepting the Potential

Ignoring the Elephant in the Room

Challenges

- Low likelihood events
- Difficult to predict
- Nebulous events
- Poorly defined metrics
- Complex, far reaching impacts

Typical Response

- Inactivity
- Avoidance
- 'Force field'
- Off the shelf / best efforts planning

Outcome

- Poorly prepared for major incident
- Untested / improper plans
- Potential for compounding impact

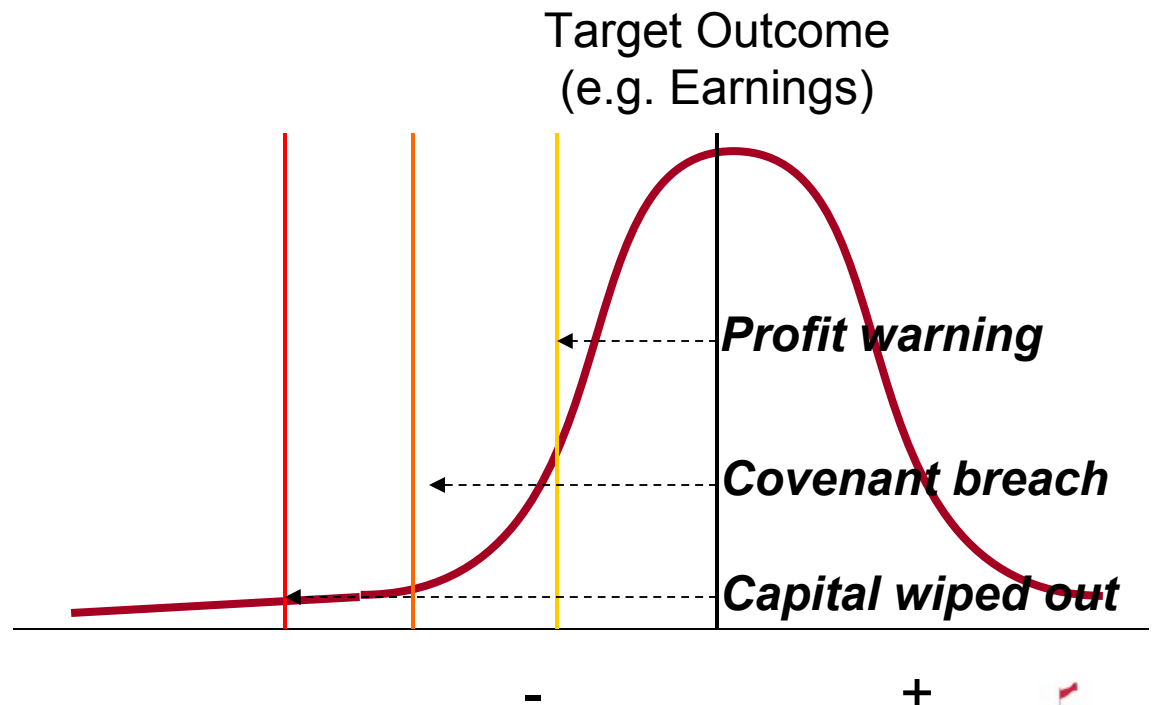
Accepting the Potential for Loss

- Accept that catastrophic risks can happen
- Understand and diligently quantify the broad potential impact on your organization
- Plan appropriately

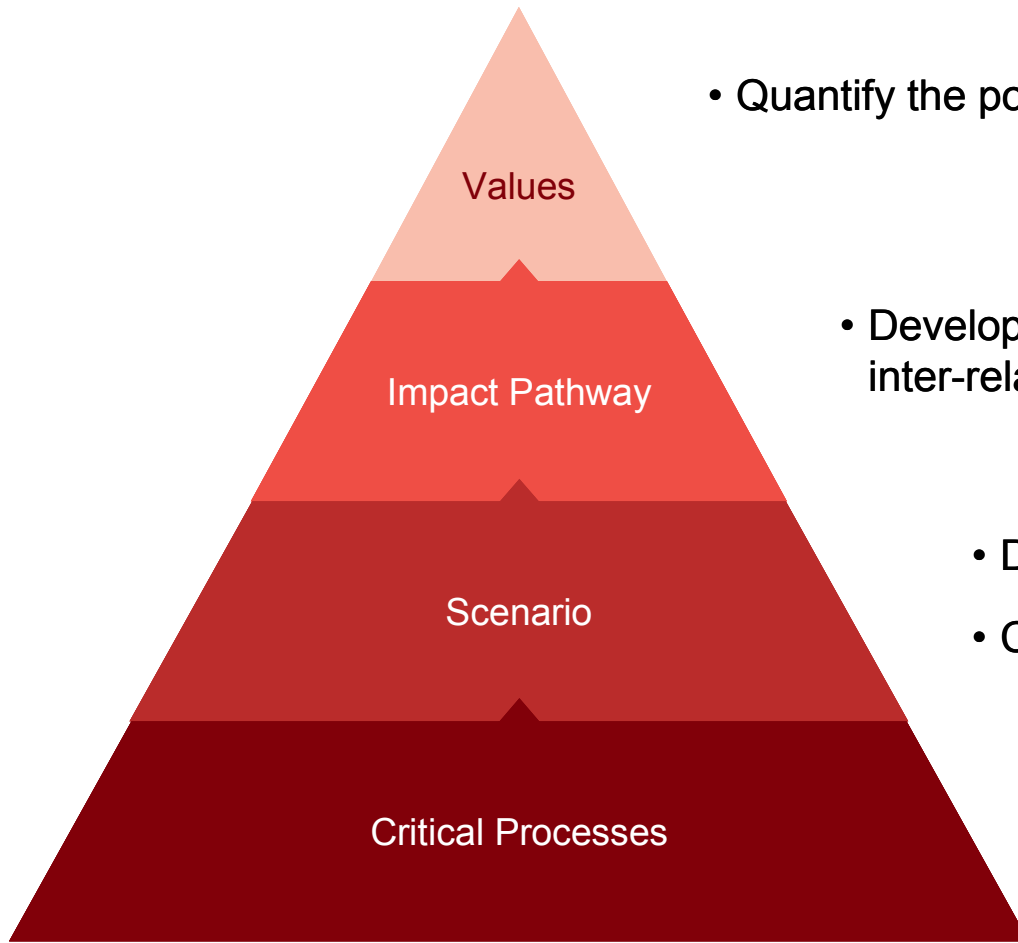
3. Measuring Catastrophic Risk

Determine Tolerable Capacity

- How much can we afford to lose?
- At what point do we risk continuity of operations?



Measuring Catastrophic Risk



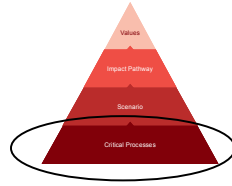
- Quantify the potential impact to the organization

- Develop a step-wise approach to follow the inter-related impacts

- Develop credible event scenarios
- Consider 'the impossible'

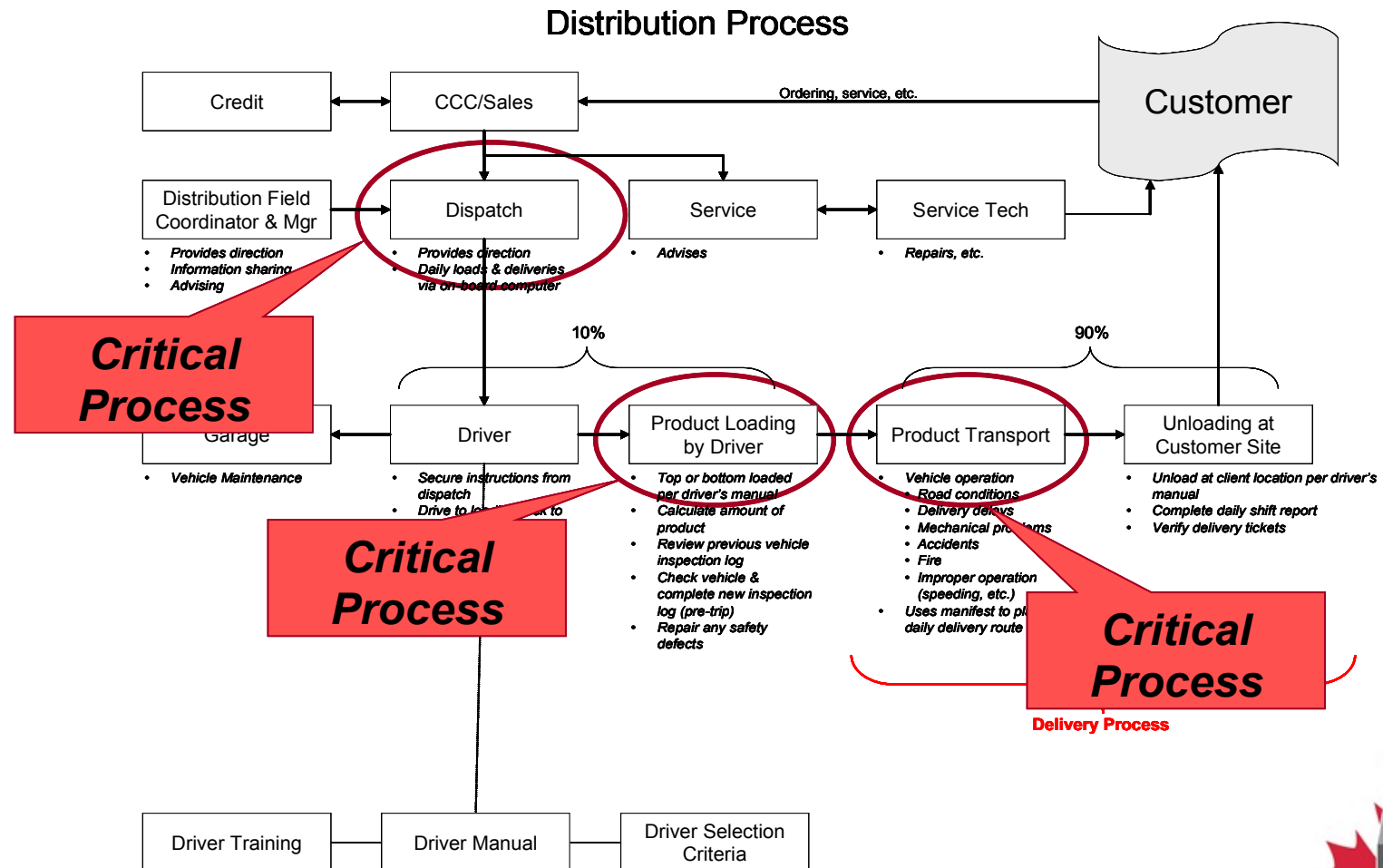
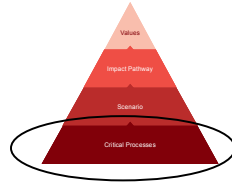
- Define critical processes within the organization

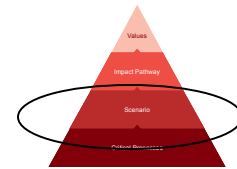
Defining Critical Processes



- What are the critical processes in your organization?
- What assets / processes / functions can you not afford to lose?
- Where do multiple processes overlap or converge?

Defining Critical Processes





Developing Scenarios

Global
events

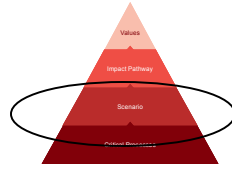
Industry
experience

Individual
experience

Creativity

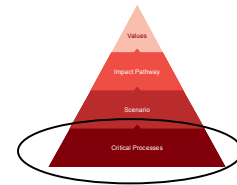
- Focus on critical processes
- Consider worst case events
- Plausibility
- Assume failure of controls
- Take 'outside-in' perspective

**Credible
catastrophic
event
scenario**



Developing Scenarios

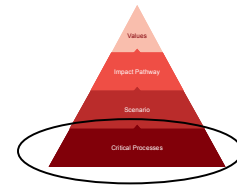
- Use critical processes as a starting point
- Focus on a manageable number of major scenarios
- Consider all downstream effects



Impact Pathways

Impact Pathways...

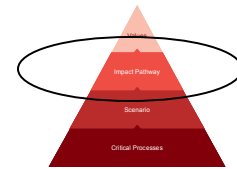
- A method of systematically identifying event impact
- Describe detailed progression of the risk event
- Break impacts down across the value chain
- Consider dependencies and inter-related processes



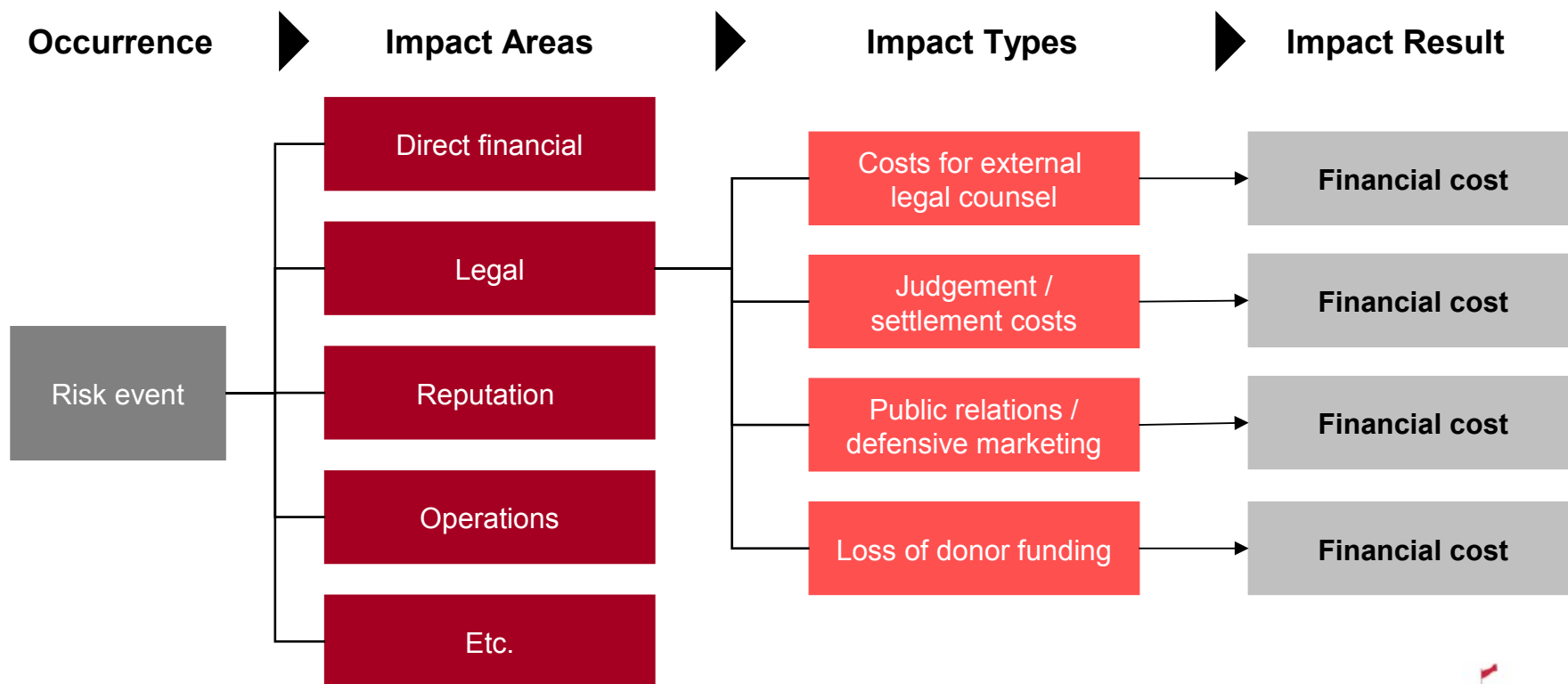
Impact Pathways

Why Use Impact Pathways?

- Logical, stepwise approach to risk evaluation
- Promotes reasonable estimates of likelihood and impact
- Allows for the identification and inclusion of interdependencies of processes
- Increases the credibility of analysis results



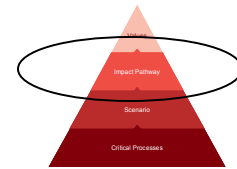
Impact Pathways





- ILLUSTRATIVE -





Generating Impact Values

What you get...

- Probabilistic ranges of potential impacts
- Clear delineation of impacts and controls
- Quantitative prioritization of catastrophic concerns



How it helps...

- Defensible, quantitative approach
- Fosters internal discussion
- Drives targeted, relevant risk management actions

4. Managing Catastrophic Risk

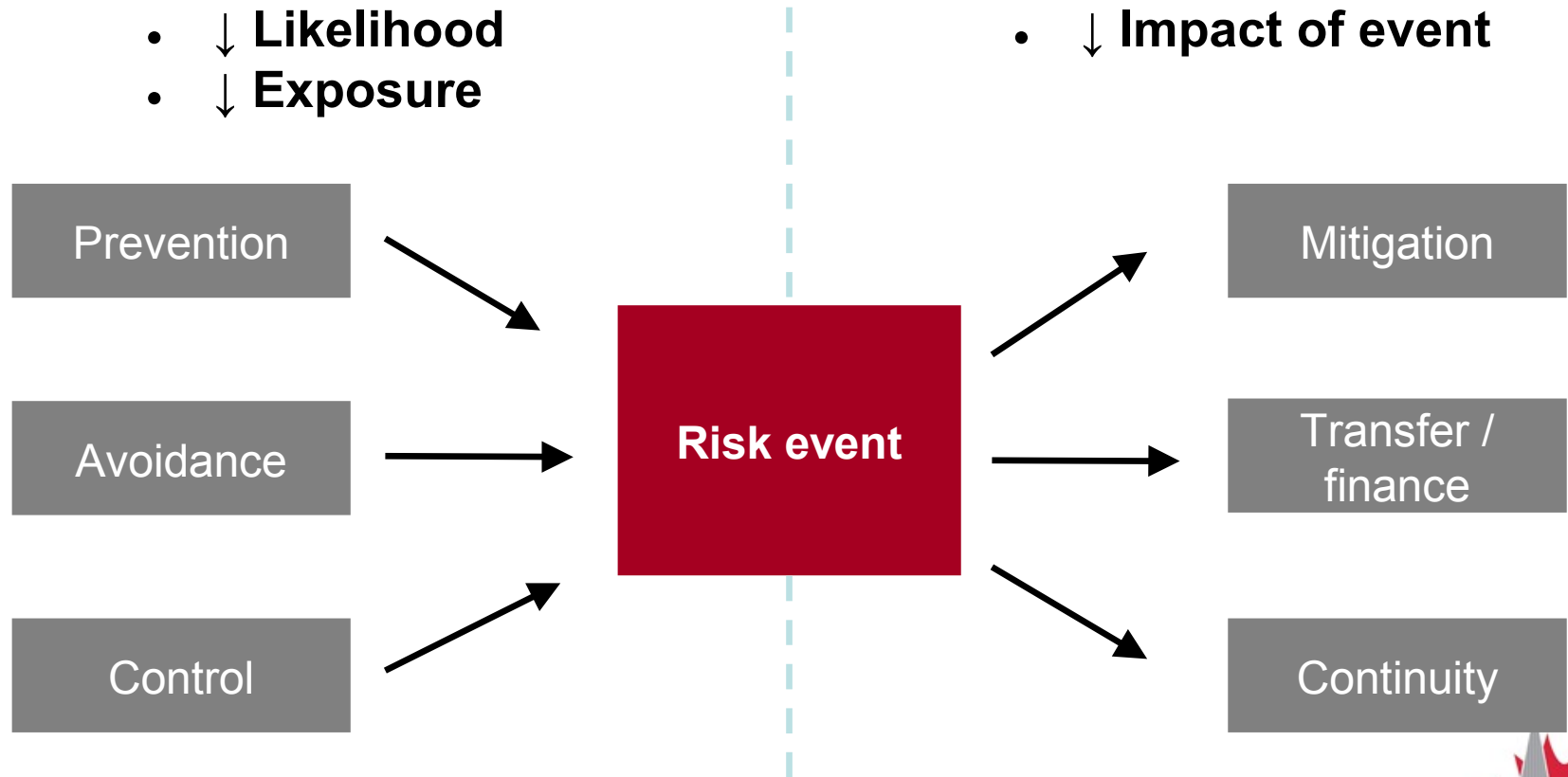
Mitigation

Pre-event Focus:

- ↓ **Likelihood**
- ↓ **Exposure**

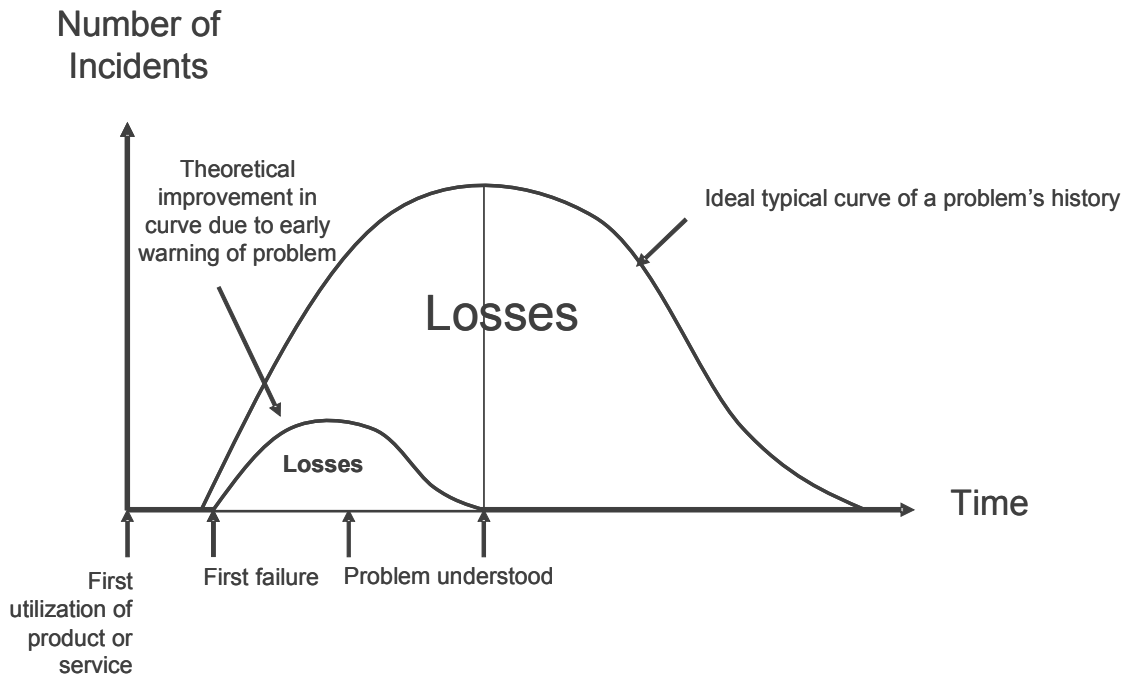
Post-event Focus:

- ↓ **Impact of event**



Pre-Event Mitigation

- Identify drivers
- Focus activities on drivers
- Identify process improvements that can minimize occurrence
- Early identification is key



Pre-Event Mitigation

STEPS



ACTIONS

- Identify existing recovery strategies, risks, business issues, and gaps
- Analyze value chain
- Purchase policies
- Diversity
- Identify critical process
- Recovery times
- Financial and non-financial impact
- Define recovery strategy options
- Select strategy
- Document recovery steps for business units
- Train employees
- Continuous improvement

Post-Event Mitigation

Key Actions

- Putting planning into action
- Using support networks / resources
- Communication

Measuring Your Plan

Have you:

- Defined catastrophic risk for your organization?
- Identified potential catastrophic risks?
- Thoroughly quantified potential impacts?
- Developed a focused plan?
- Practiced your plan?

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M110906 (C110907TP): 2011/09/16