

# *Improving Resilience of Supply Chains During Disasters*

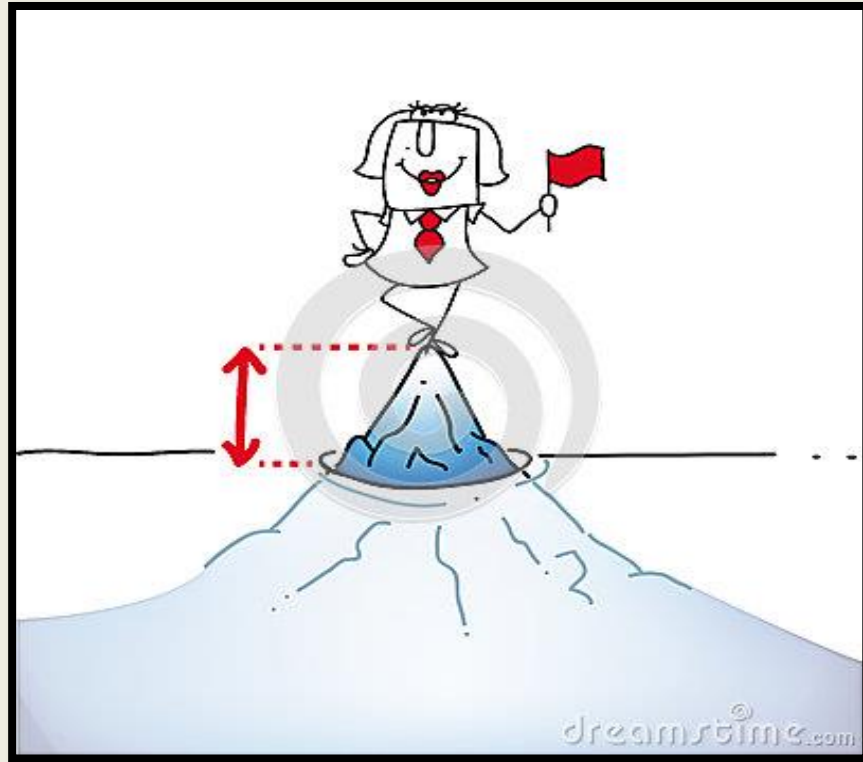


# ***Disasters Are Bad for Business***

**43%** of US companies experiencing disasters never re-open, and **29%** of the others close within 2 years



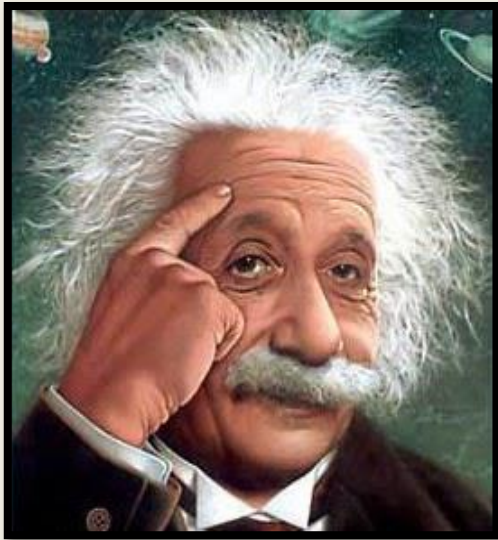
US Department of Labor



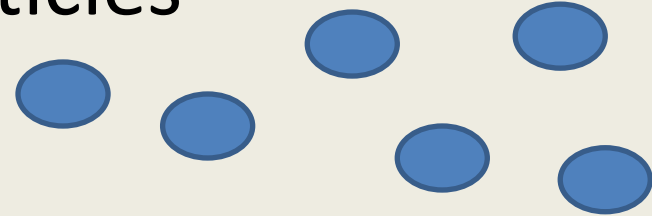
**WE HAVEN'T BEEN LOOKING AT THE  
WHOLE PICTURE**

# *Waves or Particles*

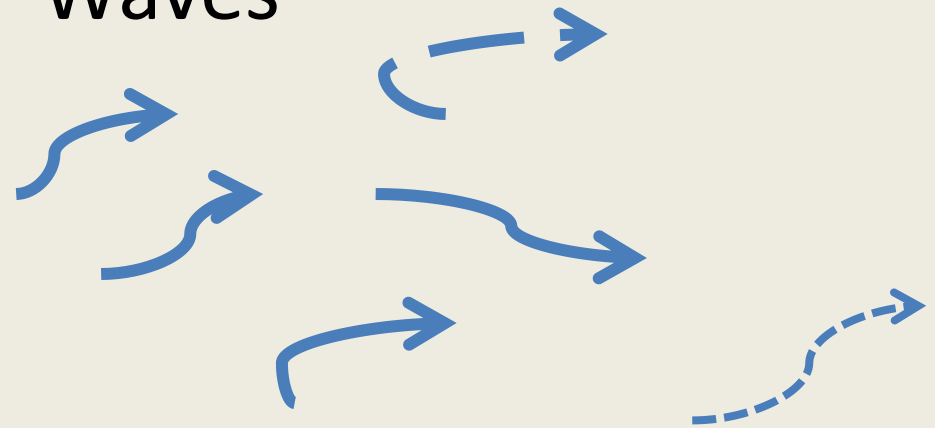
You can think of the universe as particles, or as waves but not at the same time



Particles



Waves



We transportation people have tended to think  
of the world as

***Particles***

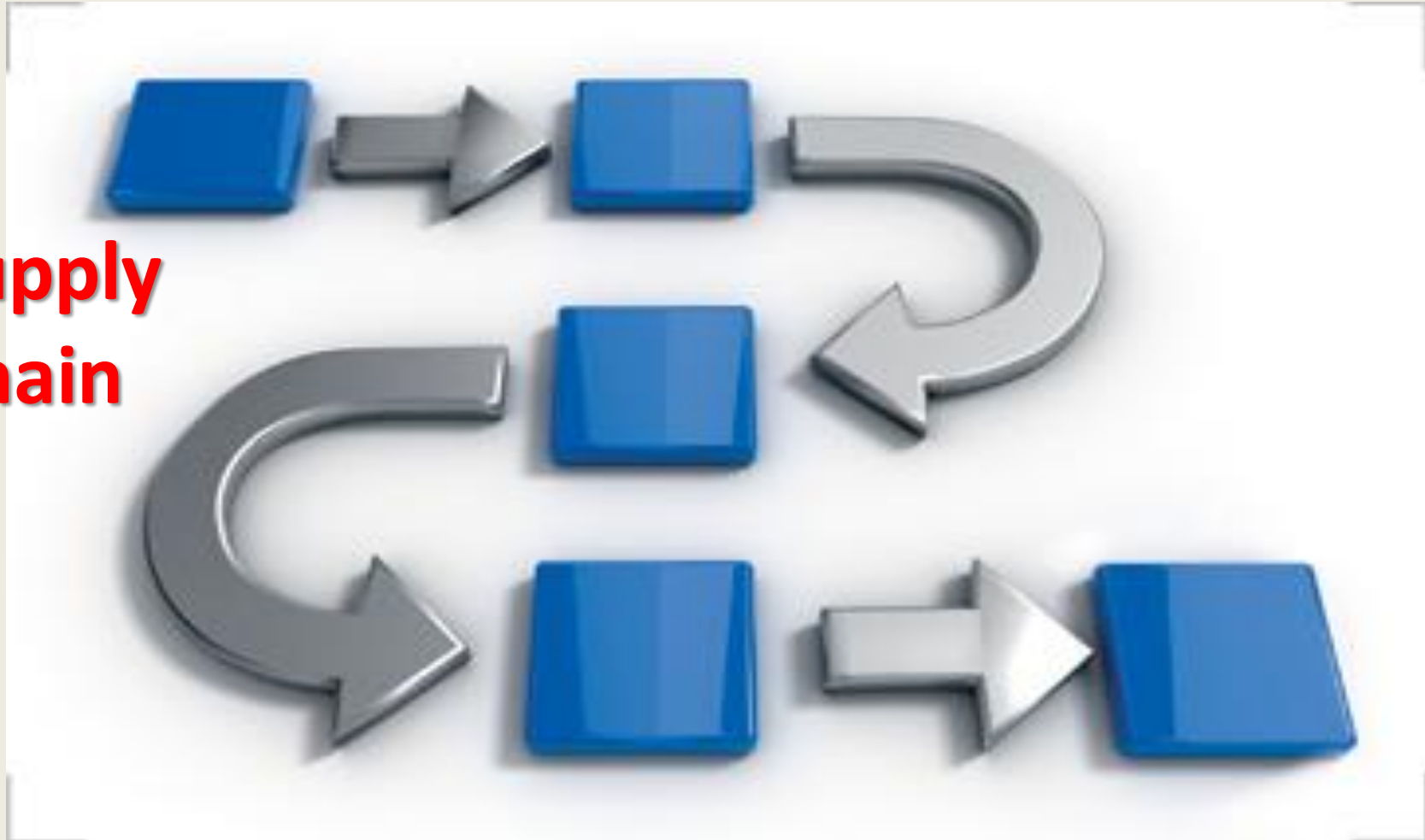


**Infrastructure**



# When we should be thinking of *Waves*

**Supply  
Chain**



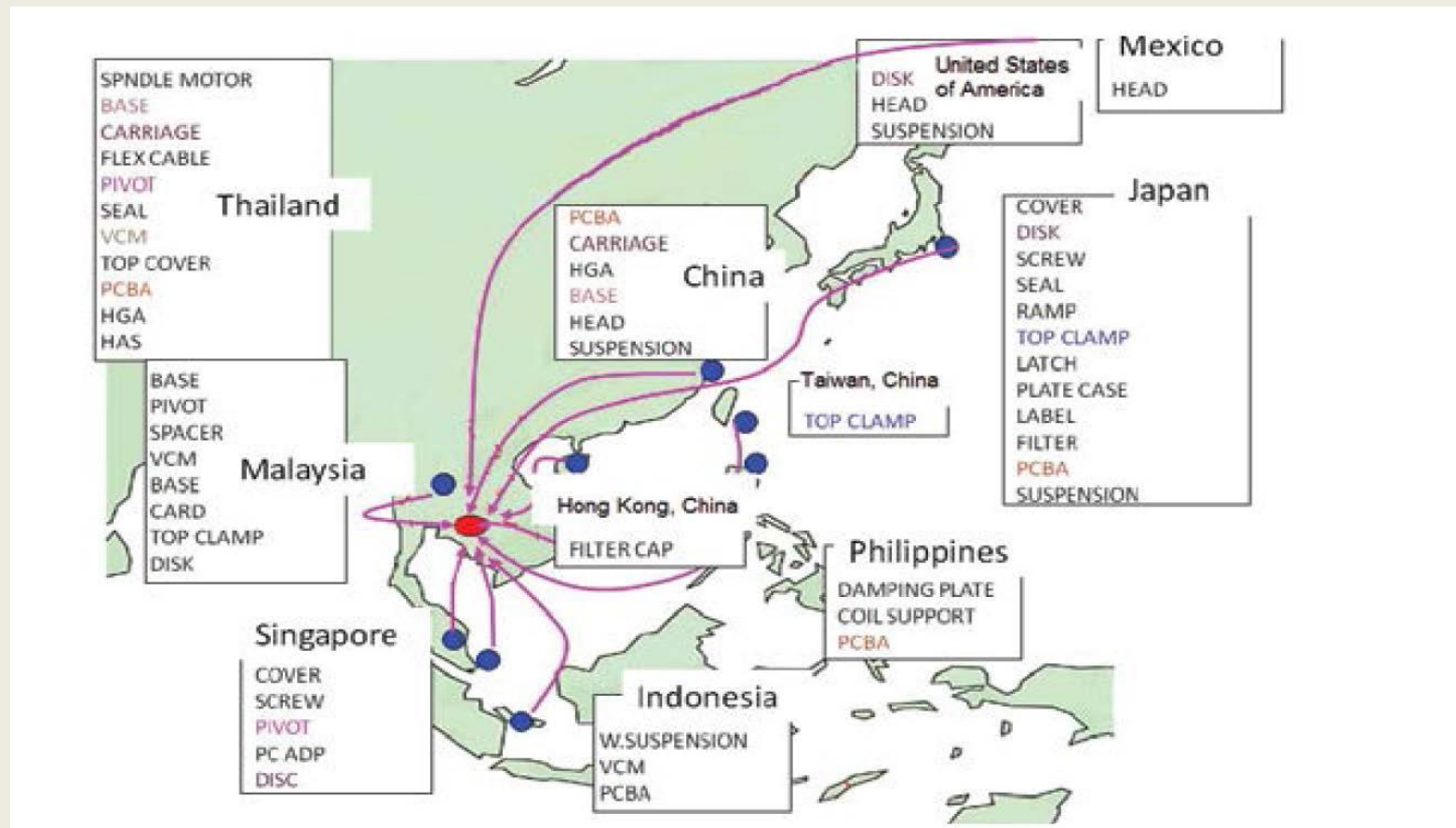
# *A Small Example of Widespread Impact*



Volcanic eruption in Iceland (2010) impacted

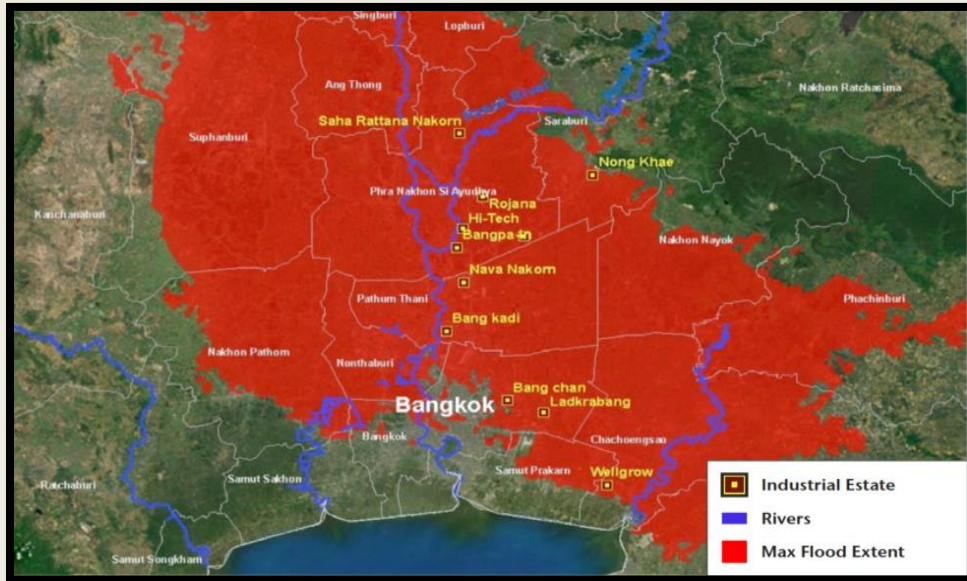
- Nearby ponies
- European air passengers
- Auto assembly plants in the US, Germany, & Japan
- Rose growers in Kenya
- Manufacturers worldwide

# Global Supply Chains of Hard Drives Assembled in Thailand





# Commercial Impact of 2011 Thai Floods



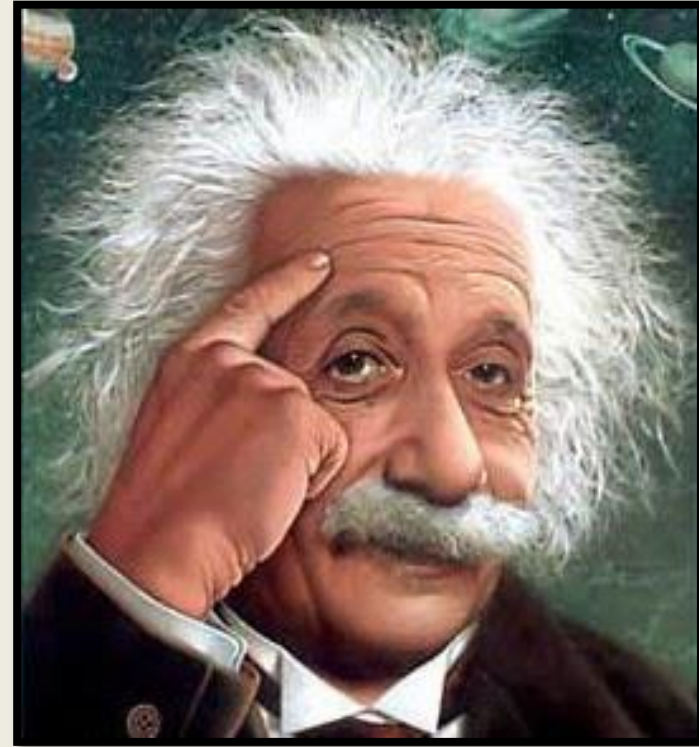
- Thailand is the #2 producer of hard drives in the world
- Floods there resulted in a 30% drop in **global** hard-drive production
- Company losses
  - Sony \$162 million
  - Canon \$603 million
  - Western Digital \$199 million

Source: AON Benfield, 2012

# ***Japan's Experience After 2011 Earthquake & Tsunami***

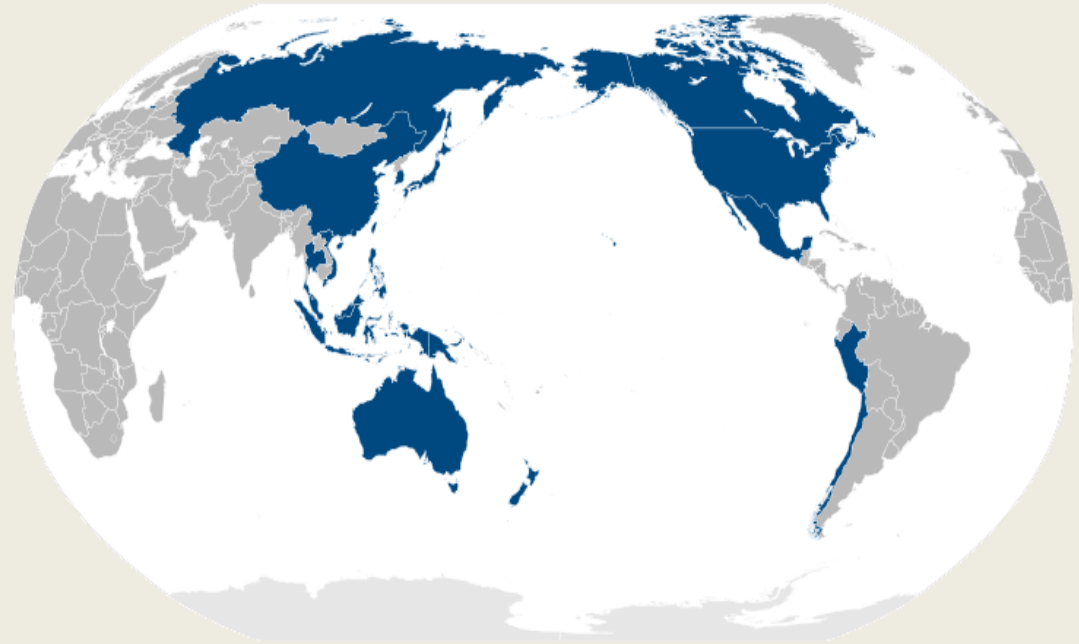
**90%** of the businesses that closed went bankrupt due to indirect losses/damage

- SOURCE: Asian Disaster Reduction Center, Kobe Japan



# HOW TO ADDRESS SUCH A WIDESPREAD ISSUE

21 member economies  
40% of world population  
56% of world GDP  
70% of natural disasters

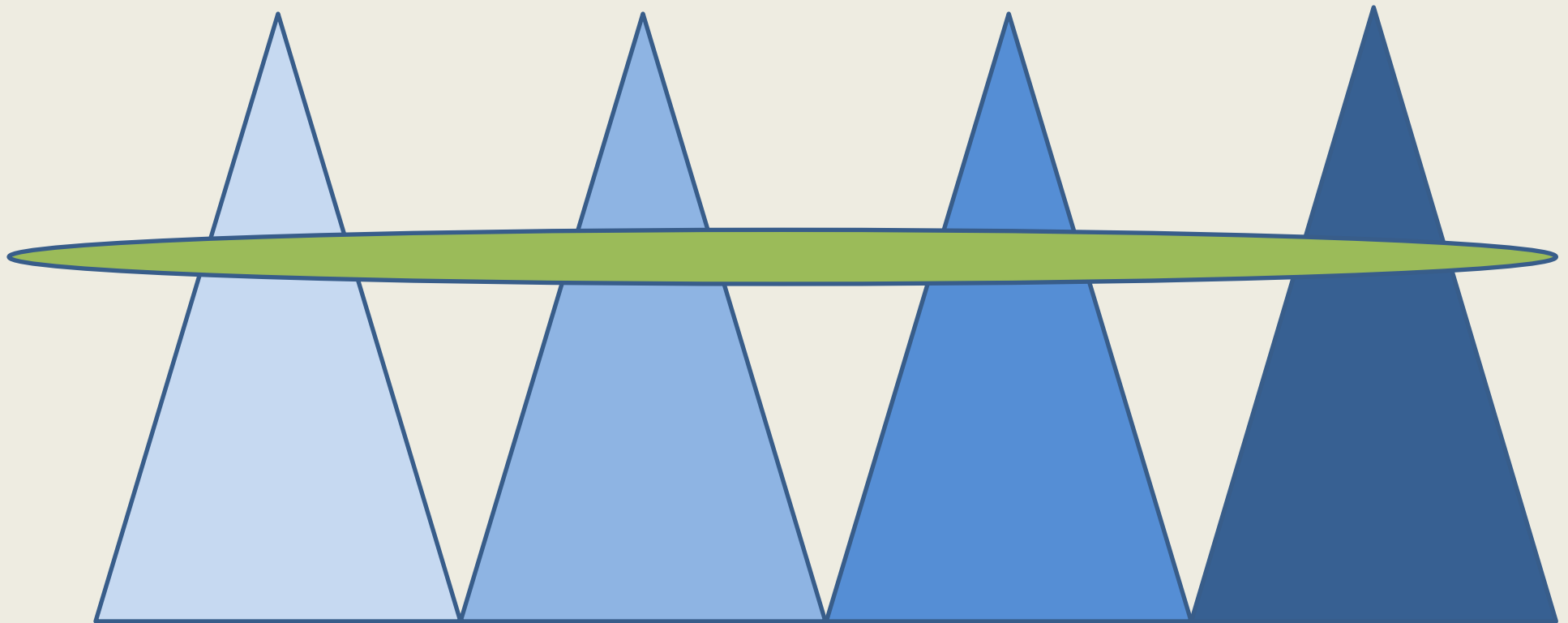


## **ASIA PACIFIC ECONOMIC COOPERATION (APEC)**

# Seven Principles

- 1. *Share information and knowledge to promote supply chain resilience.***
2. Promote disaster risk management and hazard mapping to better understand potential risks to supply chain resilience.
3. Support planning and business continuity management to improve global supply chain resilience.
4. Promote best practice policy, regulations, and flexibility to enable global supply chain resilience.
5. Leverage regional cooperation to support the supply chain, including coordination with other multinational organizations working on supply chain resilience inside and outside the APEC region.
- 6. *Promote critical infrastructure protection and inter-modalism as a key component of supply chain resilience.***
7. Recognize and promote best practices in human resource and capacity management in the context of supply chain resilience.

# *Supply Chain Resilience*

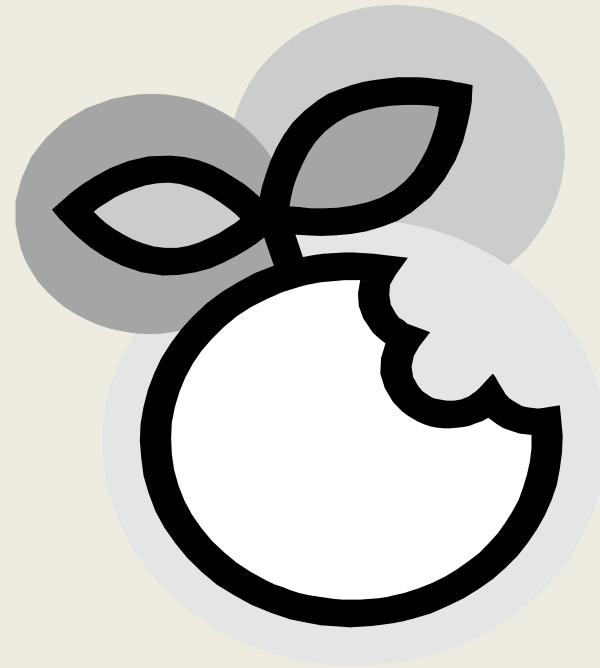


**Government**

**Businesses**

**Disaster  
Preparednes**

**Infrastructure  
Planning**

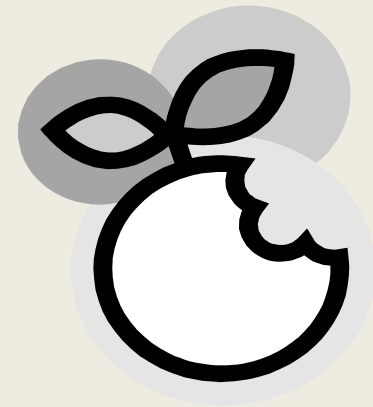


***APEC FIVE YEAR ACTION PLAN FOR  
IMPROVED SUPPLY CHAIN RESILIENCE***

# ***Focus on One Developing Economy***

## ***Each Year***

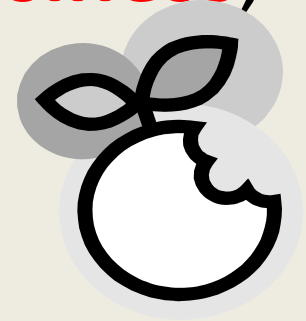
- Each year, develop an Action Plan for Supply Chain Resilience for one of the APEC economies
  - Involve partners (e.g. World Bank, USAID, **companies**)
  - Conduct a workshop
  - Facilitate discussions
  - Jointly develop an Action Plan
  - Implement the Action Plan
- 2015 = the Philippines





# *Promote One Principle Each Year*

- Best practices
- Intense workshop with multiple participants from each participating economy
- Cooperation between government, **business**, NGOs, international organizations
- 2015 = Hazard & risk mapping of supply chains



# *Working Together to Improve Supply Chain Resilience*



# ***Want to Participate With Us?***

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