



INFRASTRUCTURE, SAFETY,
AND ENVIRONMENT

***Engagement of the Private Sector in Disaster
Prevention, Preparedness, and Recovery***

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Questions and Answers

- In the short run, how can private enterprise best *be given* the tools to rebuild?
- Public sector actions should enable private enterprise to make good choices

Private Enterprise Is a Highly Varied Mix of Economic and Social Service Actors

- **Privately-owned critical infrastructure *and services***
 - Energy
 - Information and telecommunications
 - Water
 - Transportation
 - Hospitals
 - Banking and finance
 - Housing
 - Food
- **Other profit-making firms**
 - **By size**
 - **By sector**
 - **By geography**
- **Trade associations**
- **Non-profits**

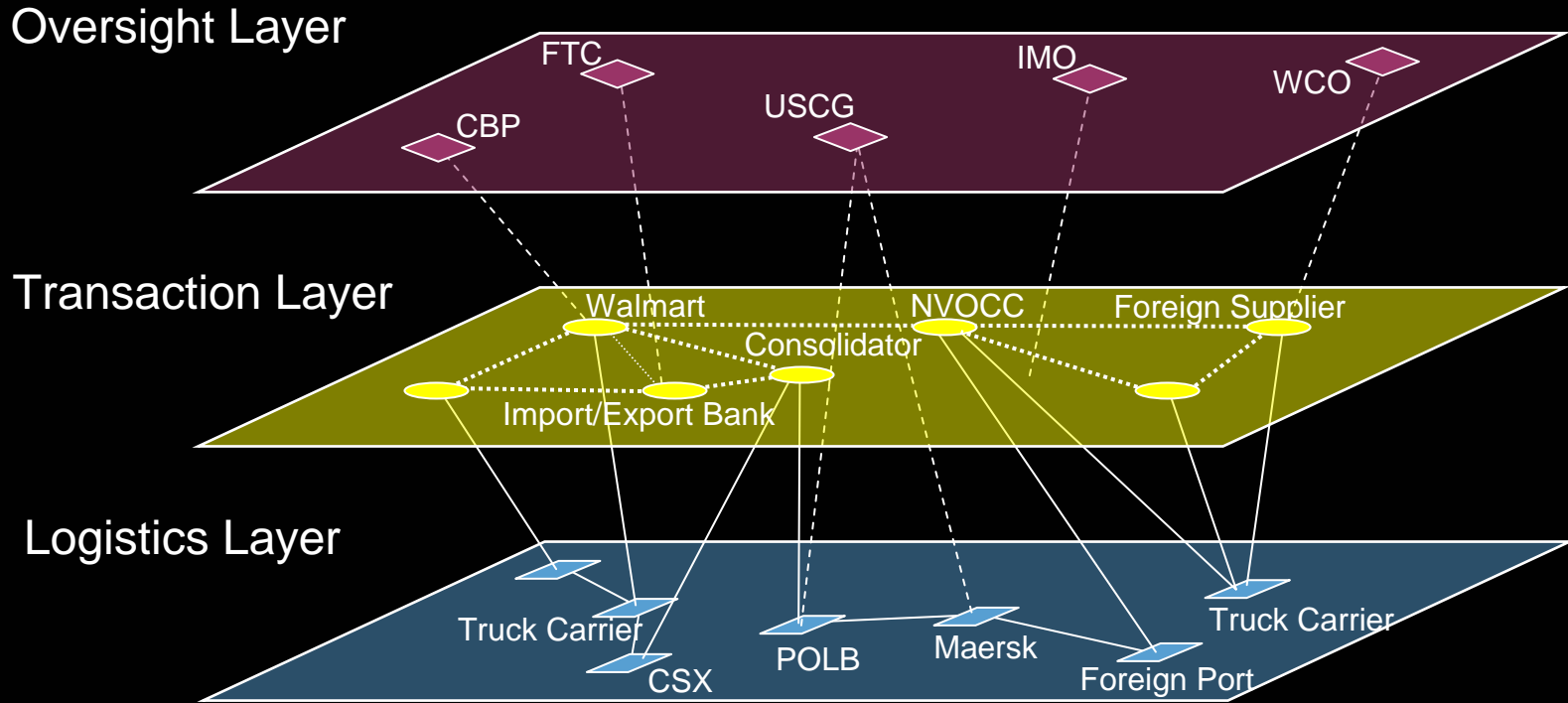
What Constitutes “Good Choices” For Private Enterprise?

- **Actions that will enable rapid reconstitution of operations, production, and services**
- **Actions that will maximize chances to re-establish economic viability**
- **Actions that are robust against a wide range of contingencies**
- **Actions that will not cause harm to others**

What Type of Public Sector Actions Enable Private Enterprise to Make Good Choices?

- **Framework for characterizing range of private enterprise dependencies on public assets and actions**

Study of Container Shipping Illustrates Systems Approach to Contingency Planning



FTC Federal Trade Commission
 CBP U.S. Customs and Border Protection
 USCG U.S. Coast Guard
 IMO International Maritime Organization
 WCO World Customs Organization
 NVOCC Non-vessel Operating Common Carrier
 POLB Port of Long Beach

Oversight or Regulatory Relationship -----
 Contractual Relationship
 Physical Relationship _____

What Type of Public Sector Actions Enable Private Enterprise to Make Good Choices?

- **Framework for characterizing range of private enterprise dependencies on public assets and actions**
- **Clarity in delegation of authority and chains of command**
- **Planning in place for a wide range of contingencies**
- **Well-established networks of relationships**
- **Pre-established triage to reconstitute public infrastructure and services**
- **Machinery to rapidly deploy human and financial resources to implement plans**
- **Accepted rational basis for allocating resources to rebuild**

Unfortunately, none of these actions can be done (well) on the fly

Questions and Answers

- In the short run, how can private enterprise best *be given* the tools to rebuild?
- Public sector actions should enable private enterprise to make good choices
- In the long run, how can the private sector engage more fully, and more effectively, in disaster prevention, preparedness, and recovery actions nationwide?
- Public and private sectors need to understand mutual dependencies, and then devise robust strategies to reduce vulnerabilities and consequences

Many Tools Are Available To Plan For the Future, But They Are Only As Good As Their Assumptions

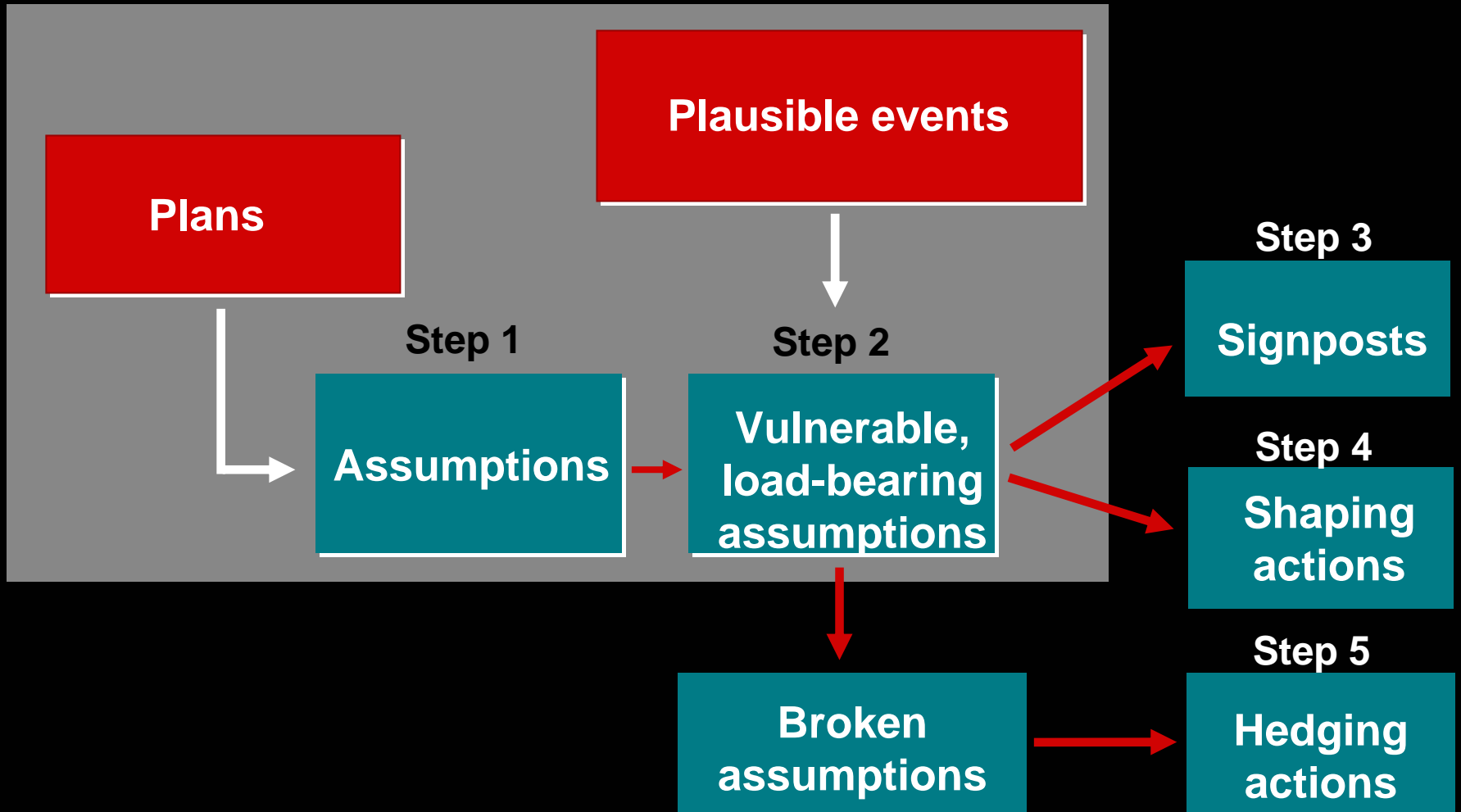
- **Prognostication**
- **Historical analogy**
- **Foresight exercises**
- **Scenario planning**
- **Formal decision analysis**
- **Simulation modeling**

A robust strategy is one that will do well no matter what the future holds

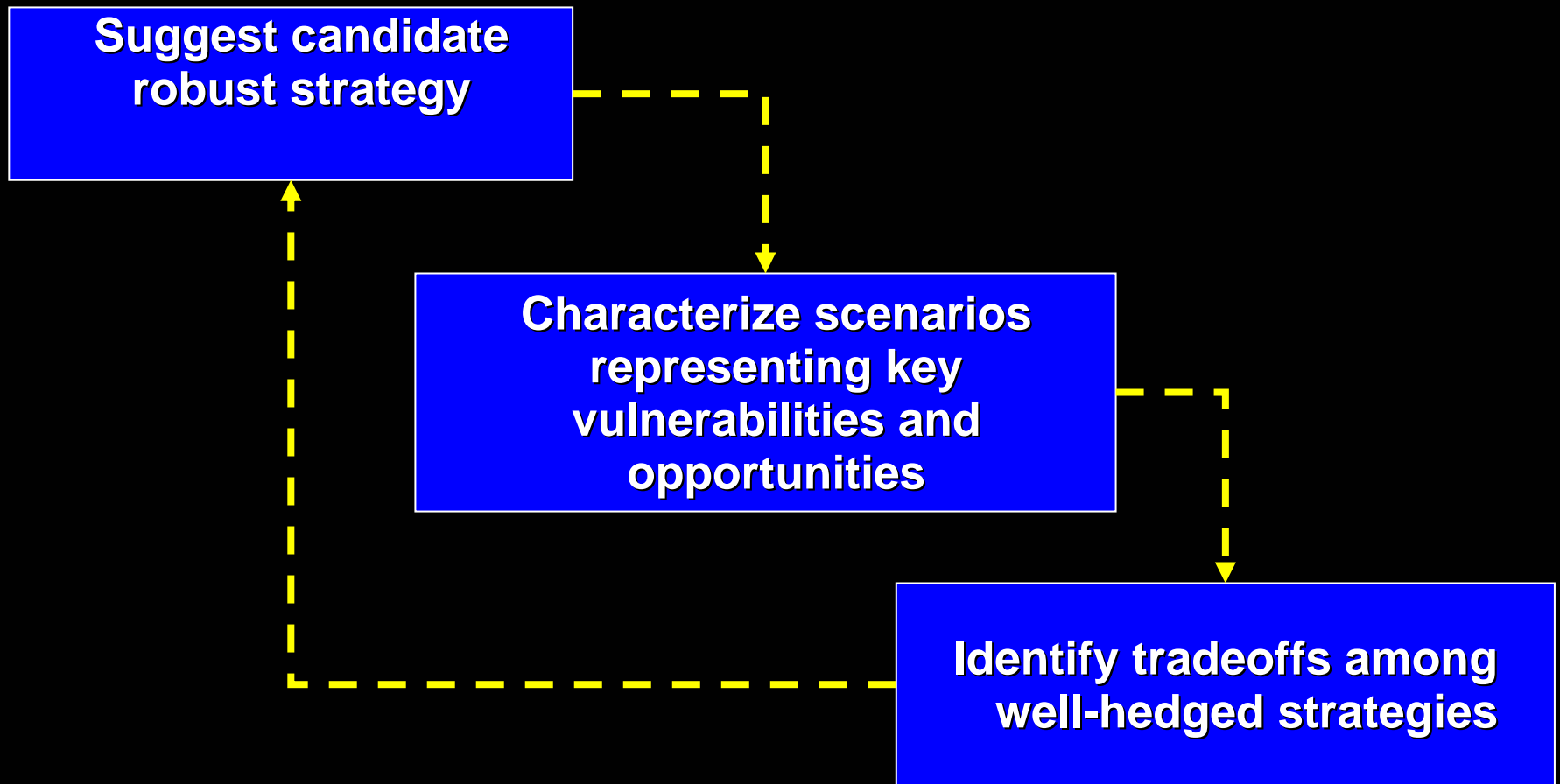
Assumption-Based Planning Is A Low-Tech Way To Develop Robust Strategies

- **Assumption-based planning aims to improve robustness and adaptability of strategic plans by reducing avoidable surprises, thereby reducing risk**
- **It focuses on identifying two types of assumptions**
 - **Load-bearing:** Failure of assumption would require significant changes in an organization's plans
 - **Vulnerable:** Plausible events could cause assumption to fail within expected lifetime of plan

Assumption-Based Planning Imposes the Discipline of Identifying Vulnerabilities in Plans



Robust Decisionmaking Takes Assumption-Based Planning To a Higher Level of Sophistication



These Methods Provide a Common Framework for Public-Private Planning and Implementation

- **Sound supply chain management requires an understanding of dependencies on physical infrastructure, logistics, and authorities**
- **Not all businesses have the capacity to implement robust strategies to cope with disasters**
- **Many mechanisms to engage private enterprise in advanced planning are already in place, but they depend on competent implementation by others**
- **Trade associations play a vital role in representing interests and capabilities of private enterprise (by sector, size, and geography)**



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