

# **TRAJECTORIES OF CRISIS-DRIVEN REGULATORY CHANGE**

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# Crises Events As **One** Type of Trigger for Regulatory Policy: A Long Pedigree

- 19<sup>th</sup> c. Mining Accidents and Workplace Safety Regulations in United States and Europe
- 19<sup>th</sup> c. Railroad Accidents and Mandated Safety Equipment
- 19<sup>th</sup> c. Cholera Epidemics and Public Health Regimes
- 20<sup>th</sup> c. Dramatic Episodes of Unsafe Drugs (Ethyl Glycol, Thalidomide) and Prior Approval Regimes
- 20<sup>th</sup> c. “Killer Fogs” in London and Pollution Controls
- Seveso, Bhopal, and other late 20<sup>th</sup> c. Chemical Plant Explosions, and Chemical Process Safety Regulation in the EU, US, and India

## Crisis-Driven Change in Risk Regulation: Three Clusters of Case Studies

### TYPE OF CRISIS

**NUCLEAR  
ACCIDENTS**

**OFFSHORE  
OIL SPILLS/  
DISASTERS**

**FINANCIAL  
CRISES**

### SPECIFIC EPISODES

**THREE MILE ISLAND (1979)  
CHERNOBYL (1986)  
FUKUSHIMA (2011)**

**SANTA BARBARA (1969)  
EXXON VALDEZ (1989)  
NORTH SEA (1980, 1988, 2011)  
BP DEEPWATER HORIZON (2010)**

**GREAT DEPRESSION OF 1930s  
"PERIPHERAL" CRISES OF 1970s-90s  
GLOBAL FINANCIAL CRISIS, 2007-??**

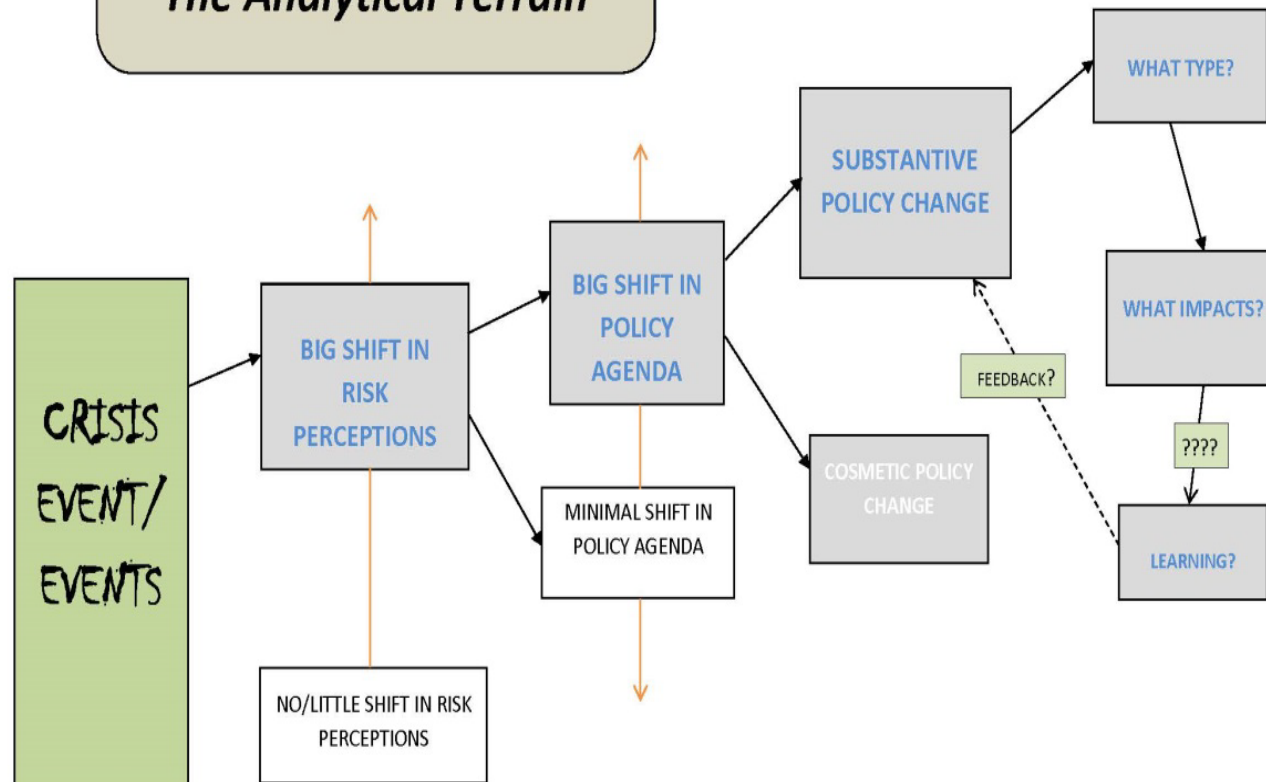
### SOCIETAL POLICY RESPONSES

**UNITED STATES  
FRANCE/GERMANY  
JAPAN**

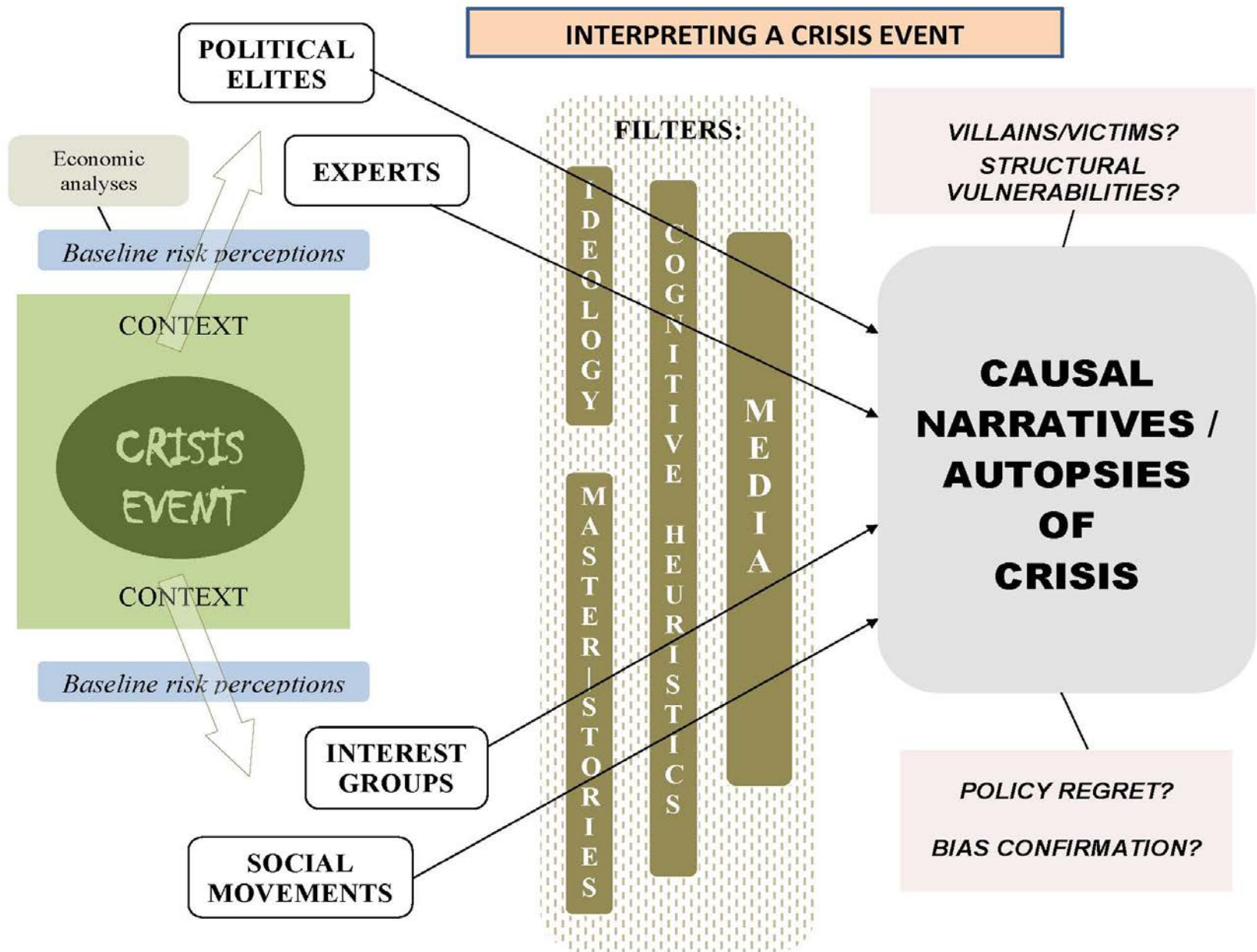
**UNITED STATES  
UNITED KINGDOM  
NORWAY**

**UNITED STATES  
UK / FRANCE  
EUROPEAN UNION**

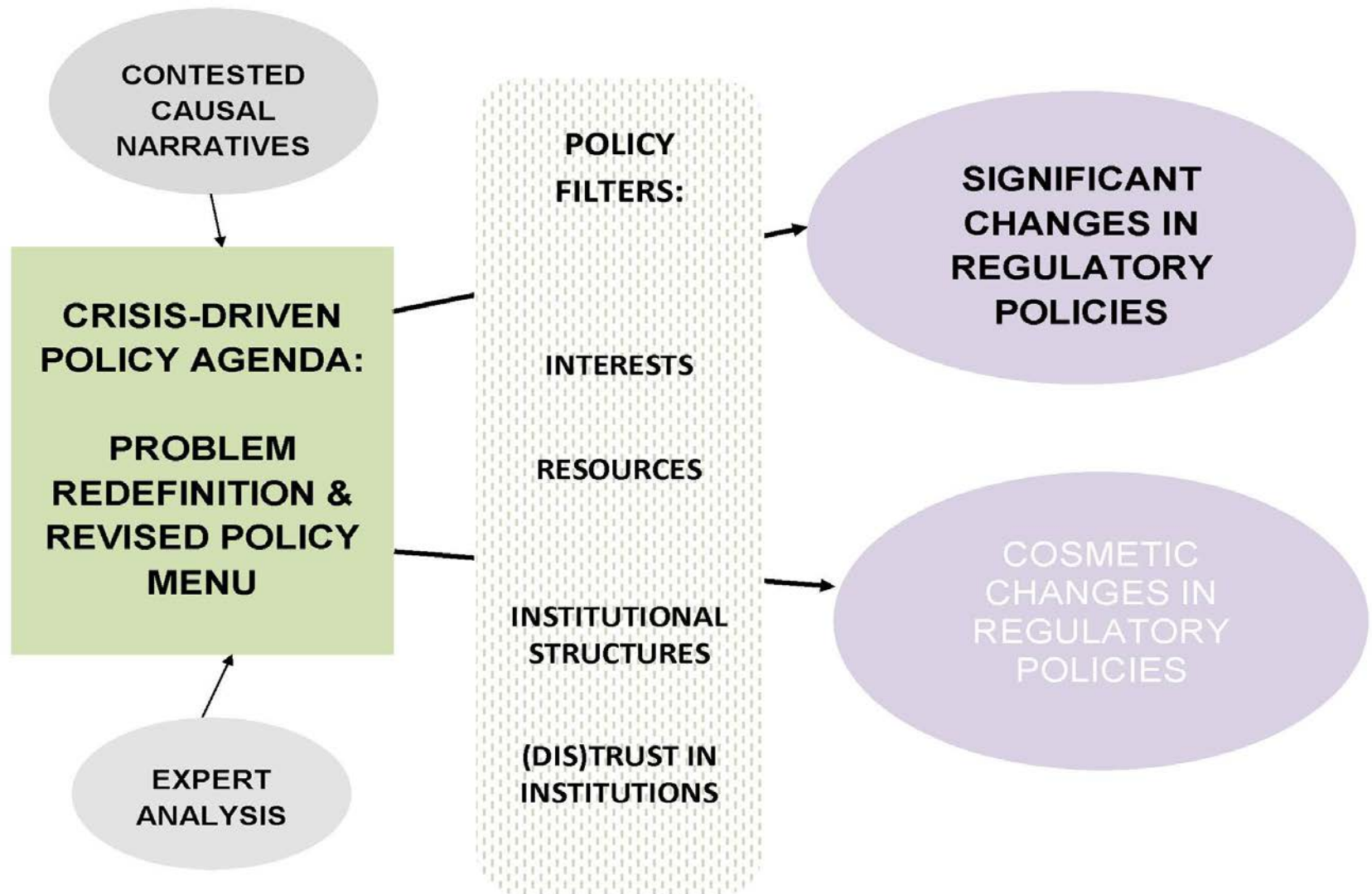
## *Recalibrating Risk: The Analytical Terrain*



A Key Goal – Developing a Stylized Model of Crisis-Driven Regulatory Change



## POLICY OUTCOMES IN CRISIS-DRIVEN REGULATION





# Determinants of “Significant” Versus “Cosmetic” Crisis-Driven Regulatory Change

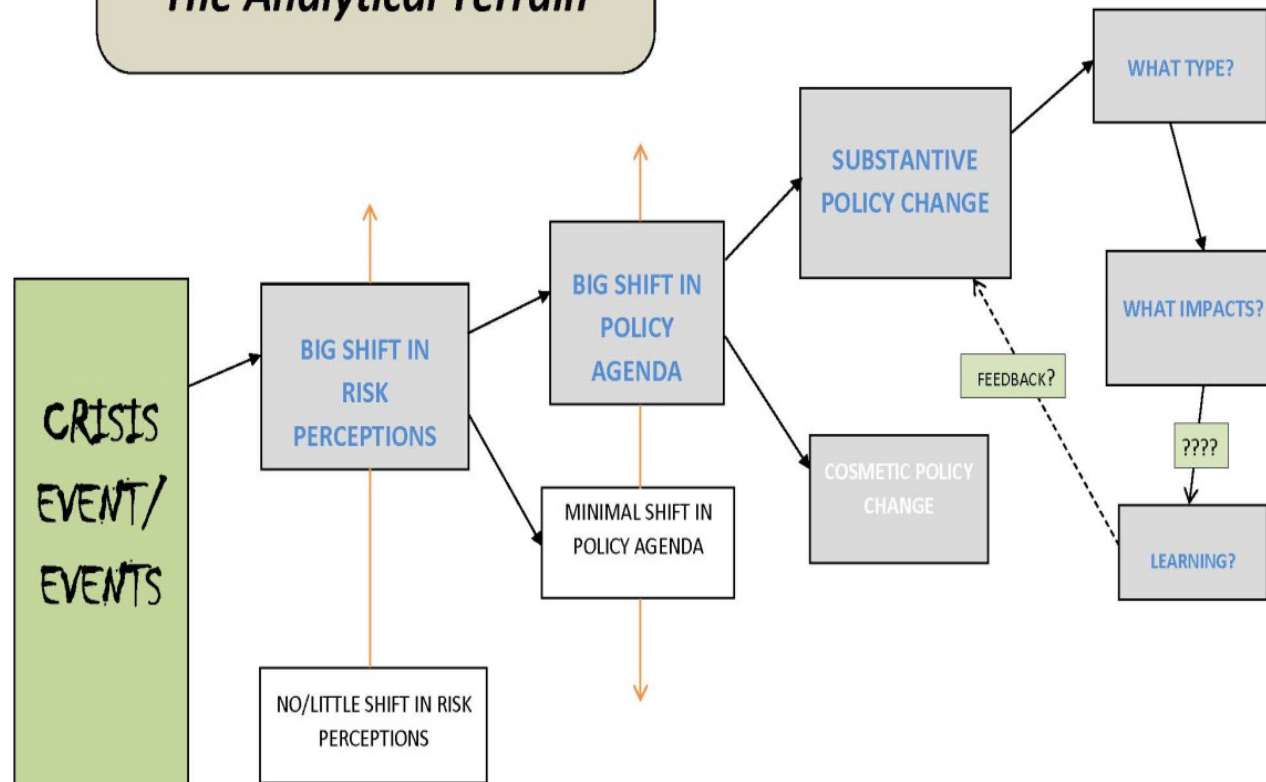
- Depth of Government’s Investment in Previously Stymied Reforms
  - “Crisis” as Policy Window
- Severity / Magnitude of Harms; Villains and Victims
- “Proximity” of the Crisis: perception of implications for “us”
  - not just geographic
  - technological/institutional parallels or distinctiveness
- Effectiveness of Crisis “Narratives” in Framing New Politics (Mayer)
- Pattern of Multiple Crisis Events (Birkland and Warnement)
  - amplification of political impulses for action
  - learning and refinement of policy ideas

# Pace of Crisis-Driven Regulatory Change

- Process often takes decade or more
  - complexity of assessing causes and impacts
  - complexity of formulating and implementing policies
- Example – responses to Global Financial Crisis
  - Dodd Frank
  - Basel III
- Deepwater Horizon as => limited/cosmetic change?



## *Recalibrating Risk: The Analytical Terrain*



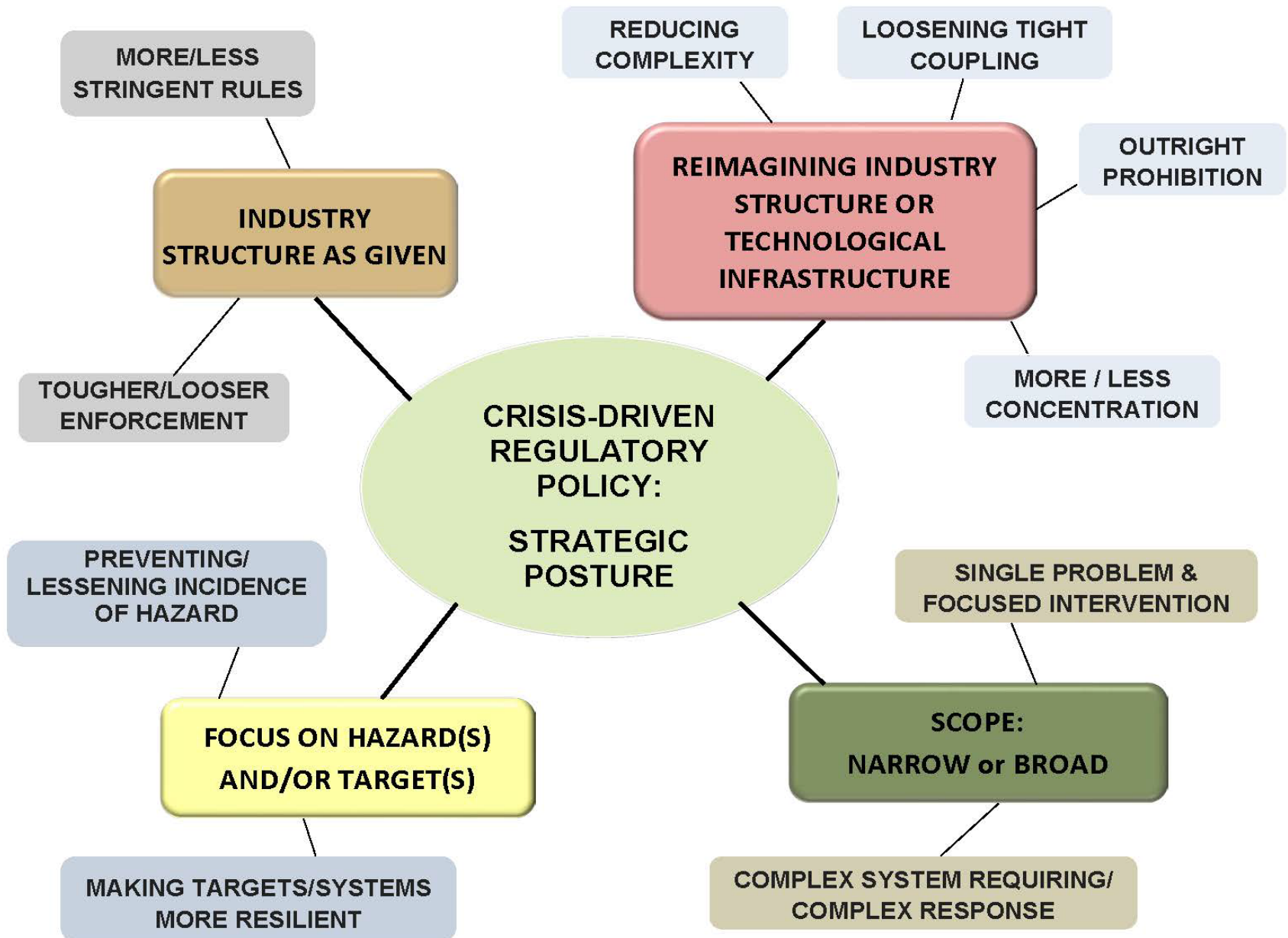
## The Process of Crafting Post-Crisis Regulatory Policies

## STRATEGIC ORIENTATION IN CRISIS-DRIVEN REGULATORY POLICY-MAKING

<-----[taken as given]-----INDUSTRY STRUCTURE-----[reimagined]----->

<-----[narrow]-----POLICY SCOPE-----[broad]----->

<-----[lessening incidence of hazards]-----POLICY FOCUS-----[hardening targets/systems]----->



## **POLICY INSTRUMENTS IN CRISIS-DRIVEN REGULATION**

### **RESHAPING INDUSTRY STRUCTURE**

**Deregulation/Privatization**

**Market Partitioning**

**Technological Phase-out**

**Nationalization/Public Option**

### **LEVERAGING MARKET FORCES**

**Disclosure Regime**

**Liability Regime**

**Ratings Regime**

**Tradeable Permits**

**Increased or Reduced**

**Subsidies/Taxes**

### **PUBLIC REGULATORY OVERSIGHT**

**Prescriptive Design Standards**

**Orchestration:**

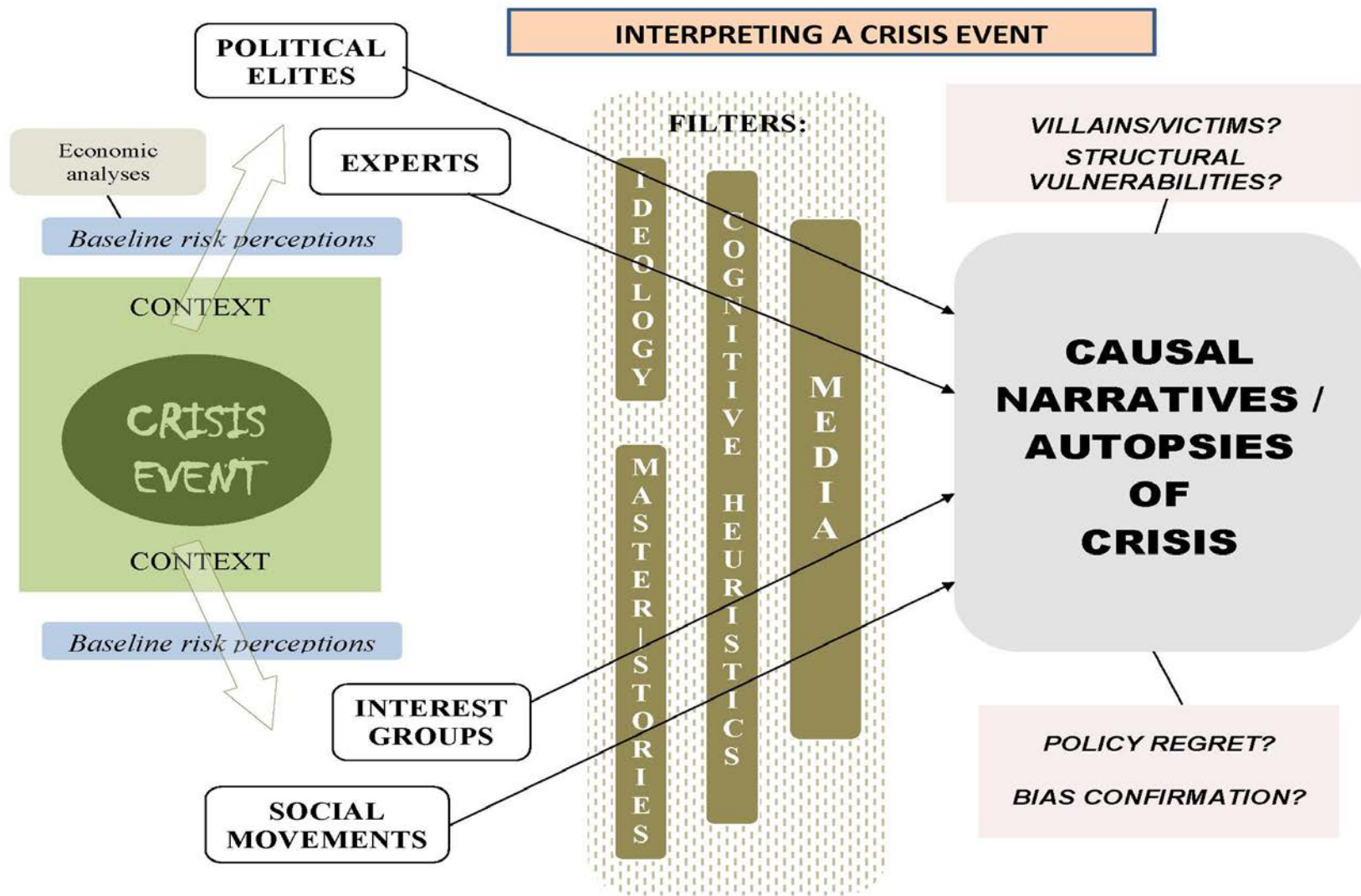
**Guide to Best Practices**

**Certification Scheme**

**Inspection Regime:**

**Regular Monitoring**

**Accident & Near Miss Inquiries**



## Key Queries/Considerations for Policy-makers Confronted by Crisis

# Key Questions/Considerations for Policy-makers Confronted by Crisis

- How to make sense of crisis?
  - regular policy channels? special commission?  
rather, permanent independent crisis inquiry agency?  
(NTSB model; Dutch Safety Board)
- Best practices for any of above?
  - independence; investigative authority & resources; post-recommendation monitoring
- Explicit consideration of strategic posture in light of best understanding of crisis causes
- Explicit consideration of FULL policy menu, with attention to risk-risk trade-offs
- Awareness of need for updating/review



# CONTRIBUTORS TO “RECALIBRATING RISK”

## *Conceptual Essays*

**Elke Weber, Psychology and Columbia Business School**, on cognitive heuristics, risk perceptions, and the impact of crises on those perceptions

**Thomas Birkland, Political Science, North Carolina State University**, on the political dynamics of focusing events

**Frederick Mayer, Public Policy, Duke University**, on narrative framing and agenda construction

**Lori Benneer, Environmental Economics, Duke University**, on the techniques of economic analysis for estimating distant and/or low probability risks of great potential magnitude

**Carolyn Kousky, Economics, Resources for the Future**, on the techniques of modern insurance for assessing and hedging fat-tailed risks

## *Oil Spill/Rig Disaster Case Studies*

**Marc Eisner, Political Science, Wesleyan College**, on American regulatory responses to Santa Barbara and Exxon Valdez

**Chris Carrigan, Political Science, University of Pennsylvania**, on American regulatory responses to the BP-Deepwater Horizon oil spill.

**Ole Andres Engen, Sociology, and Preben Lindoe, Risk Management, University of Stavanger**, on European regulatory responses to North Sea oil spills



# CONTRIBUTORS TO “RECALIBRATING RISK”

## *Nuclear Accident Case Studies*

**Elisabeth Pate-Cornell, Engineering, Stanford**, on American regulatory responses to nuclear accidents

**Ortwin Renn, Sociology, Stuttgart University, and Ragnar Löfstedt, Brooke Rogers, Kristian Krieger, Kings College, London**, on German and French regulatory responses to nuclear accidents

**Atsuo Kishimoto, Public Policy, National Institute of Advanced Science and Technology, Tokyo**, on Japanese regulatory responses to nuclear accidents

## *Financial Crash Case Studies*

**Youssef Cassis, Economic History, European University Institute**, on regulatory responses to the financial crises of the Great Depression in Britain, France, and the United States

**David Sicilia, History and Business, University of Maryland**, on regulatory responses in the United States and Western Europe to peripheral financial crises of the 1980s and 1990s

**Barry Eichengreen, Economics, University of California at Berkeley**, on regulatory responses to recent European sovereign debt crises

**Bruce Carruthers, Sociology, Northwestern University**, on regulatory responses to the recent Global Financial Crisis, focusing on the problem of asset valuation.

**Stijn Claessens and Laura Kodres, International Monetary Fund**, on regulatory responses to the recent Global Financial Crisis, at both the national and global levels