

# Establishing the Technical Basis for Institutional Prescriptions

Daniel Metlay  
Senior Professional Staff  
U.S. Nuclear Waste Technical Review Board



The views presented in this talk do not represent those of the U.S. Nuclear Waste Technical Review Board, an independent Federal agency.

# The BRC's mission

---

- Charter
  - Development of options for the fuel cycle, storage, and disposal
  - Legal, commercial, and organizational arrangements for managing SNF and HLW
  - Flexible and adaptive decision-making processes that are open, transparent, and participatory
- Important foci of meetings
  - Institutional trust
  - Siting controversial facilities
  - Risk perceptions

# Establishing a technical basis

---

- Expert judgment of the Commissioners supported by the broad experiences of a very well qualified and respected staff
- Systematic assessment and evaluation of institutional options
  - Presentations on “lessons learned” by this country and by waste management programs in other countries
  - Requested papers by a number of distinguished social scientists

# Volunteer host communities (I)

---

- Lessons from the United States
  - Transformation of “consultation and concurrence” into “consultation and cooperation”
  - Site-selection efforts under the NWPA and the NWPAA
  - The Oak Ridge community’s decision to accept conditionally a centralized SNF storage facility
  - Nuclear Waste Negotiator’s interactions with communities and tribes
  - Development of the Private Fuel Storage facility
  - Siting of the Waste Isolation Pilot Plant

# Volunteer host communities (2)

---

- Lessons from abroad
  - France
  - Sweden
  - Finland
  - Japan
  - Germany
  - United Kingdom
  - Canada

# Organizational form (1)

---

- Utility-owned consortium
  - Finland
  - Sweden
- Government agency
  - France
  - United States (Yucca Mountain)
  - United State (Waste Isolation Pilot Plant)

# Organizational form (2)

---

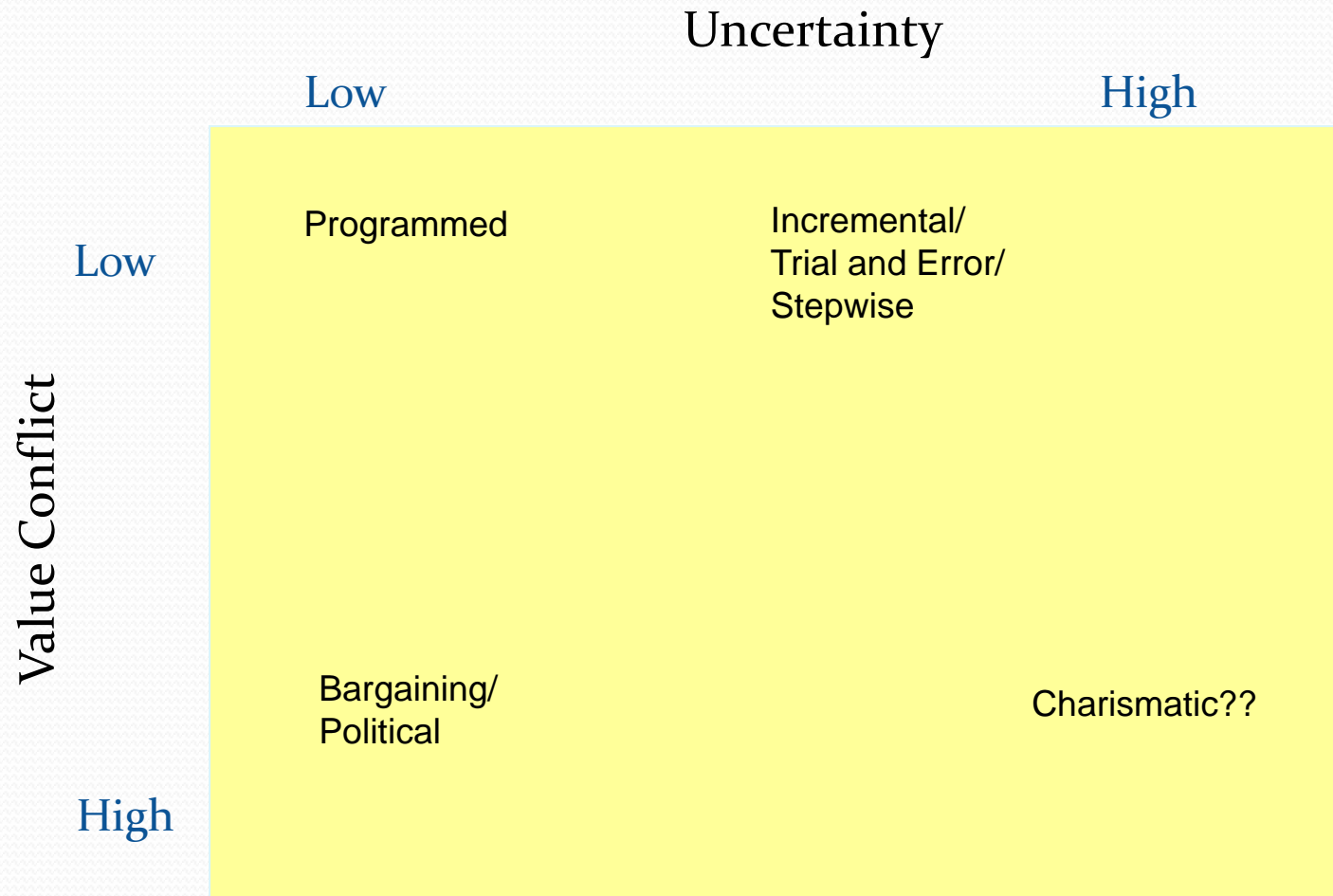
## Organizational tests used by the AM-FM Panel

- Mission oriented
- Ability to maintain credibility
- Stability and continuity
- Programmatic authority
- Accessibility
- Responsiveness
- Political accountability
- Financial accountability
- Ability to stimulate cost-effectiveness
- Technical excellence
- Ease of transition
- Internal flexibility (hire/fire)
- Immunity from political interference

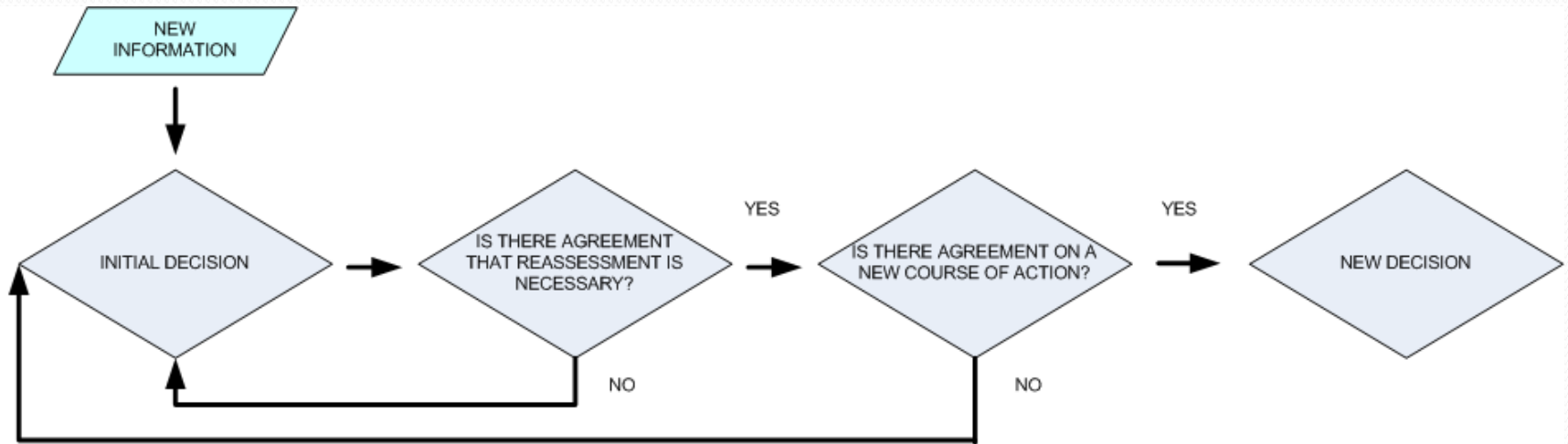


# Stepwise decision-making (1)

---



# Stepwise decision-making (2)



# Conclusion

---

- To make many of its recommendations, the BRC will have to perform a number of *causal analyses*.
  - Out of necessity, it will have to rely on the expert judgments of its members and staff for some of those analyses.
  - But the BRC also has positioned itself to carry out systematic assessments and evaluations of various institutional options.
- This talk suggests some of the challenges involved in carrying out those analyses in a technically defensible way.
- By the way: Explicit explanation of the second element of decision-making, value trade-offs, would also be valuable.