



# **U.S. House Annual Commission on Forward Engagement**

## **Congressional Forward Engagement Session**



# **Agenda**

- Introduction to Forward Engagement
- Report Components
- Lessons Learned – Areas for Further Research
- Feedback and Discussion

# **Forward Engagement**

“A process of thinking systematically about the longer-range future, and about ways in which public policy might engage the future sooner, rather than later.”

-Leon Fuerth

# **Simulation**

- House Annual Commission on Forward Engagement (HACFE) staff responsible for preparing report to Joint Session of Congress on future issues and recommendations for process.
  - Required by PL-6414

# **Report Components**

- **Future Contingencies of Interest**
  - Thematic and Issues Nodal Analysis
- **Organizational/Process Recommendations**
- **Component-Level Implementation Process**

# **Futuring Methods and Analysis**

# Future Contingencies of Interest

- FCIs are the basic unit of analysis in Forward Engagement
- Broad spectrum
- Can be trends or events
- Potential for significant impact / “Societal Tsunami”
- Examples:
  - Global warming, abrupt climate change
  - Widespread adoption of alternative energy
  - US Credit Implodes
  - Global pandemics

# Future Contingencies of Interest

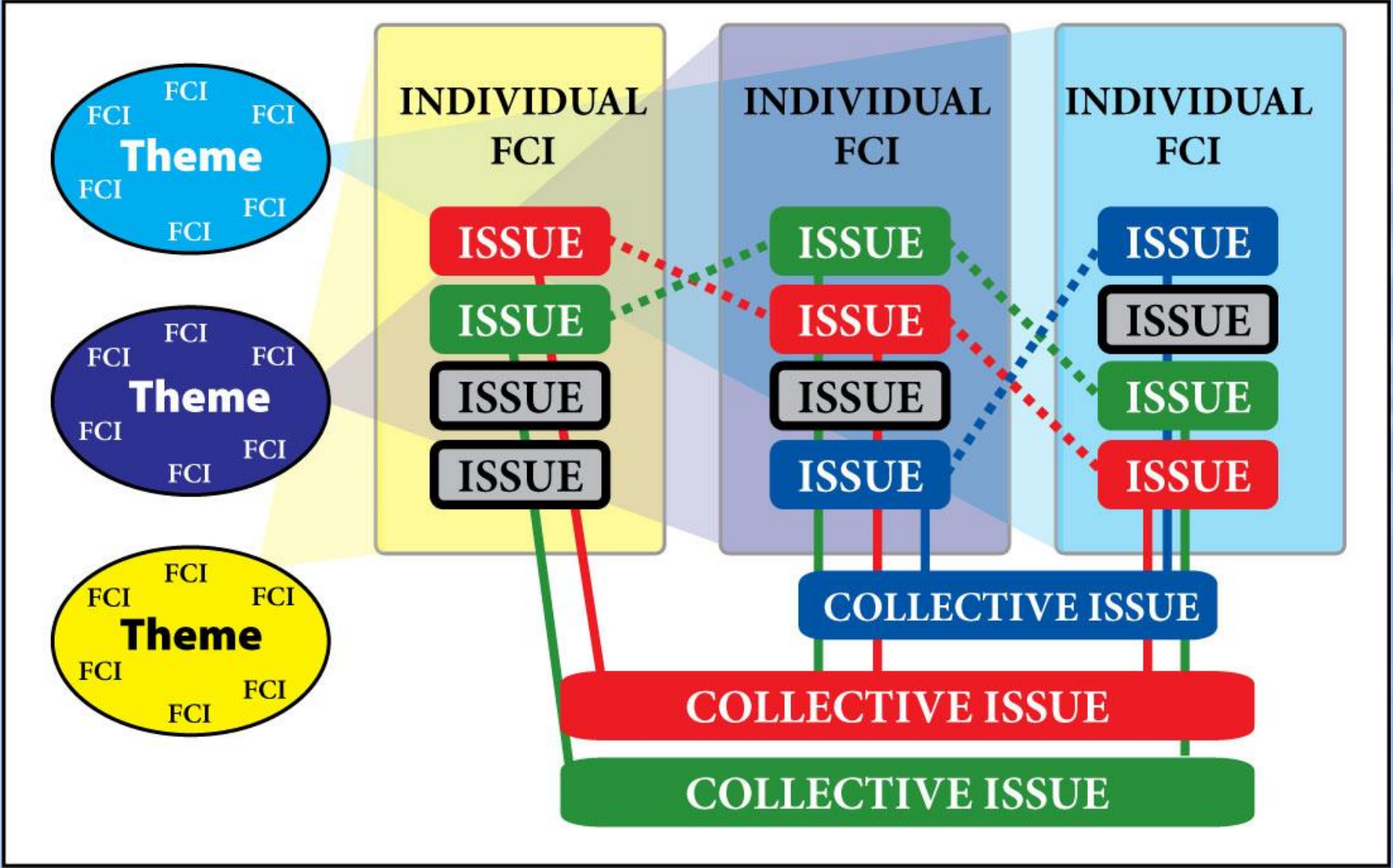
- Analyzed with STEEP process
- Lists impacts on:
  - **S**ociety
  - **T**echnology
  - **E**conomy
  - **E**nvironment
  - **P**olitics
- Other FCI Analysis methods (more subjective)
  - Positive or negative
  - Action index
  - Scenarios



# Themes and Issues

- Theme: a broad grouping of FCIs based on their potential impact(s)
  - A way to see general linkages between them and perhaps historical trends
- Issues: Non-political questions designed to get to the root of each FCI
  - Does not provide a prescription for handling the FCI
  - Creates actionable items that legislators/exec. Branch can use to craft long-range policy
  - Feeds into CLIP process

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# **Thematic Analysis Examples**

1. Scientific and/or technological change outstrips government's ability to respond
  - Advances in molecular biology and human cloning
  - Widespread availability of the Internet and mobile phones
  
2. Non-state actors diminish primacy of sovereign states
  - Multiculturalism and integration of minorities
  - Rise of multinational corporations
  
3. State actions upset status quo
  - Disruption of the maritime commons
  - Weaponization of space

# Issues Analysis

## 1. Definition of Human Life

- Molecular Manipulation of Human Biology
- Viable Human Clones
- Power Shift to Asia

## 2. State Sovereignty

- Multinational corporations threaten to usurp state sovereignty
- Cybercrime
- Global Warming

## 3. Privacy vs. Security

- Government Surveillance
- Rising Power of Multinational Corporations
- Global Health

## 4. Hydrogen

- Global Warming
- Power Shift to Asia

# **Organizational Processes and Structural Recommendations**

# **Key Recommendations**

- Replace the House and Senate Annual Commissions on Forward Engagement with House and Senate Select Committees on Forward Engagement
- Establish a federally funded Center for Future Studies
- Establish an executive branch Inter-Agency Working Group on Forward Engagement



# **Legislative Organization**

- House and Senate Select Committee on Forward Engagement (HSCFE/SSCFE)
- Binding authority and jurisdiction to write legislative proposals that impact strategic planning
  - Long-term policy and issues emanating from FCIs
  - Oversight for strategic planning in certain executive agencies
  - Jurisdiction complementary to traditional committees



# **Legislative Organization**

- Non-partisan, 50-50 party split + 1 in favor of majority
  - Membership drawn from: Education and Workforce, Energy & Commerce, Government Reform, Homeland Security, International Relations, Resources, Science, Intelligence & Armed Services
- Responsible for Annual Session on Forward Engagement (PL-6414)
- Preferential to a Joint Congressional Committee
- Create a Joint Commission with executive branch to study and report on creation of an Inter-Agency Working Group structure for FE

# **Center for Future Studies**

Prior report stated two objectives:

1. Institutionalize process of expert advice
2. Create a mechanism to promote FCIs

# **Center for Future Studies**

- Introduce potential policy issues arising from FCIs
- Interface with executive branch on Forward Engagement
- Funding – treated like the Federally Funded Research and Development Center (FFRDC)
- Office of Technology Assessment (OTA)-type analysis
  - Non-partisan
  - Outcome driven

# **Executive Organization**

- Create an Interagency Working Group on Forward Engagement
- Chaired by a new position: Deputy National Security Advisor for Forward Engagement
- Consisting of at least DOS, Commerce, DOD, DHS, Energy, OMB, EPA, Justice, and Health & Human Services

# **Executive Organization**

- Fulfillment of policy goals set out through legislation for FE & sustaining an agenda for prevention of strategic surprise
- Goldwater-Nichols-type reform for executive agencies
  - Federal promotions to specific positions require service on this IAWG
  - Build functional ties and cultural change
- Responsible for executing policies legislated from “CLIP” process



# **Component-Level Implementation Process**

# **Component-Level Implementation Process**

- **Recommendation:** Adopt the Component-Level Implementation Process (CLIP)
- **CLIP's Objective:** Mitigate the political risk associated with long-term programs whose final results may not be seen for decades

# **The CLIP Process:**

- Describes a desired long-term objective
- Develops a series of short-term steps or components needed to achieve the objective
- Frames components in legislative language timed to match political cycles
- Creates components that can also stand alone with politically-tangible short-term benefits



# CLIP in Action

- CLIP Objective: **Kick-start the transition to a hydrogen economy** by creating conditions that lead individuals and firms to replace carbon-based energy sources with hydrogen fuel
- Kick-starting the transition to a hydrogen economy would influence many of our FCIs:
  - Switch to alternative energy
  - Global warming
  - Power shift to Asia
  - Disruption of the maritime commons
  - New age of war
  - WMD event

# Examples of CLIP Components

110th Congress (2007-2008)

Authorizes and appropriates funding for research into hydrogen fuel technology

*Immediate, stand-alone payoffs:*

- Demonstrates government commitment to both reducing US dependence on foreign energy sources and to repairing America's environmental situation
- Supports American universities and researchers
- Contributes to maintaining America's competitive advantages in basic scientific research and technological innovation
- Creates demand for experts in hydrogen fuel technology

# Examples of CLIP Components

## 110th Congress (2007-2008)

Authorizes and appropriates funding for research into hydrogen fuel technology

*Long-term, contingent payoffs:*

- Progress in basic research leads private firms to invest more in applied research
- Scientific breakthroughs dramatically reduce costs of hydrogen power
- Strengthens links between university research departments and private firms, which helps preserve America's competitive advantage in hydrogen fuel technologies as scientific advances continue to enhance firms' capabilities after other countries transition to hydrogen economies

# Examples of CLIP Components

111th Congress (2009-2010)

Authorizes and appropriates funds for a phased transition to hydrogen fuel generators in post offices and other federal buildings

*Immediate, stand-alone payoffs:*

- Hydrogen power generation provides both electricity for government buildings and water for heating and cooling systems, which pays a large part of the cost of the hydrogen fuel processors.
- Utility's self-sufficiency improves government's ability to respond to man-made or natural disasters and supports continuity of operations (COOP) planning.
- Legislation signals government's intention to subsidize the transition to a hydrogen economy, giving a dramatic boost to venture capital investment in the technology.
- Provides secure "first customer" demand which allows firms to invest in mass production of hydrogen fuel generators.

# Examples of CLIP Components

## 111th Congress (2009-2010)

Authorizes and appropriates funds for a phased transition to hydrogen fuel generators in post offices and other federal buildings

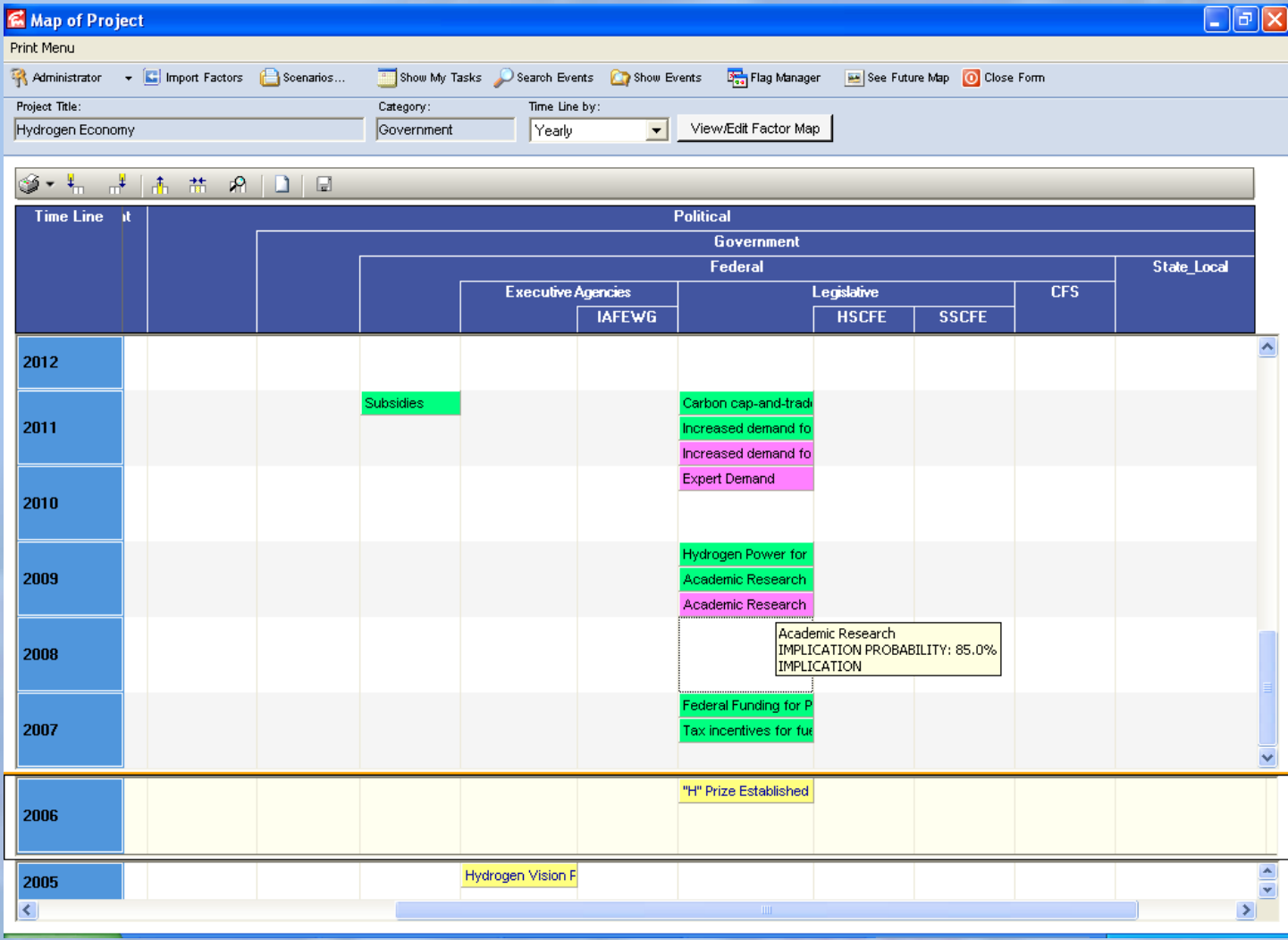
*Long-term, contingent payoffs:*

- Demonstration of cost-effective use of hydrogen fuel generators in government buildings leads to wider use.
- Convergence of venture capital investment, government procurement, and private sector demand continues to drive mass production of hydrogen fuel cells, which lowers their unit price enough to make them cost-competitive with hydrocarbon fuels in an increasing number of situations.
- Electric utility companies introduce mechanisms that allow homeowners to earn money by using surplus energy from their hydrogen fuel generators to power surrounding grid, and this leads to explosion in demand for home hydrogen generators.

# **Future Map Experiment**

- We used a web-based software tool called Future Map in parallel with the CLIP process in order to test its utility as an analytical and visualization tool
- Purpose: Provide a better visual depiction of the CLIP process
- Due to personnel limitations, we did not conduct a full analysis but instead focused on using the software to demonstrate the concept's feasibility.
- Recommendations: The Future Map software could
  - continue to be used in parallel with CLIP
  - support more detailed and complex analysis of the complex interrelationships among FCIs

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**Project Map: Placing the mouse over an event displays details such as Average Probability Rating and type of event (in this case, implication)**

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**Edit Existing Event**

FACTOR:  DATE:

CATEGORY:  TYPE:

SOURCE:  SOURCE QUALITY:

TITLE:

AUTHOR:

KEYWORD(S):

FLAG:   Milestone  Option AVERAGE PROBABILITY:   
AVERAGE IMPACT:

Event Details | Implications | **Related/Linked Events** | Discussion | Shared In Project(s) | Options | Links

Title	Author	Date	
Academic Research		01-Jan-2009	<a href="#">Associate...</a>
Academic Research	jam	01-Jan-2009	<a href="#">Unassociate</a>
Increased demand for technical workers		01-Jan-2011	<a href="#">Event Details...</a>

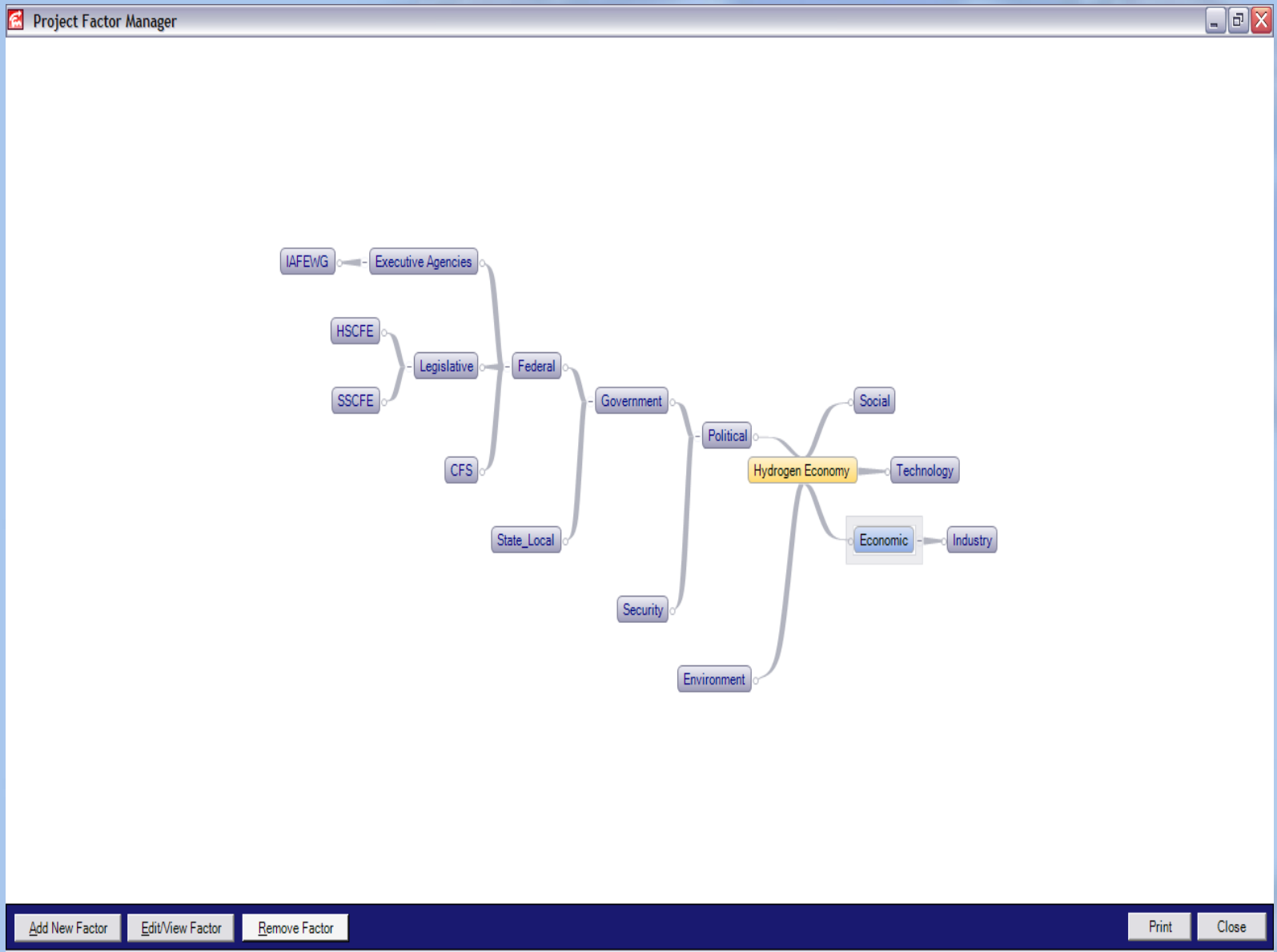
DETAILS:

Delete Save As Option Save As Milestone Save Cancel

Events / implications can become highly detailed and any individual with access to the wiki-forum can contribute to their development in the Future Map



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# **Areas for Further Research**

- Developing comprehensive approach to nodal analysis
- Overcoming institutional boundaries
  - Exploring Forward Engagement at the non-federal level
  - Orienting government culture toward long-range planning
- Improving marketability of CLIP initiatives for legislators



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## **Congressional Forward Engagement Session**

