

# Friday A.M. Agenda

- Note: all rapporteurs send notes to Jeff @ [jtaylor@agci.org](mailto:jtaylor@agci.org)
- 9:00      Synthesis discussion
- 9:30      Products
- 10:00     Writing assignments – individual/small group
- 11:00     Reconvene and wrap-up – immediate next steps
- 11:15     Adjourn

# Workshop reflections from the co-chairs...

... to spark discussion

# Some general points...



Lots to consider!

- There is both societal need and scientific opportunity
- Research communities are evolving
  - Collaborations are increasing
  - Individuals are becoming more interdisciplinary
  - Greater engagement with “users”
- How can we accelerate progress?

# What are the challenges?

## Box. 6.1. User/Societal Needs

People, communities, states, resource management agencies, and private-sector companies across the country face varied but important planning decisions that will affect the livability and competitiveness of the nation.

### National and regional-scale assessments

- Impacts on power plant cooling, hydropower, bioenergy, and other regional energy systems
- Implications for electricity and other national and regional energy distribution systems
- Cascading, multi-sector dependencies and vulnerabilities
- Energy for future water management
- Aggregate damages and economic implications
- Water transfer and boundary issues

### Sustainable development planning

- Integrated resource planning
- Sustainability options analysis

### Investment and siting decisions

- Facility siting and environmental and economic analysis
- Technology selection and deployment
- Retrofit and/or capital turnover
- Integrated systems designs/perspectives
- Operational reliability

### Adaptation strategies

- Implications of adaptation strategies and options
- Global change and other stressors
- Means, extremes, and the implications for vulnerable systems
- Mitigation versus adaptation and search for co-benefits
- Indicators of change

### Technology analysis and R&D insights

- Technology performance (including economic), water efficiency, and demands
- Technology penetration constraints

- Decisions will affect quality of life, competitiveness, etc.
- DOE Water-energy related  
←
- An essential next step: Develop a clear statement of the need and opportunity

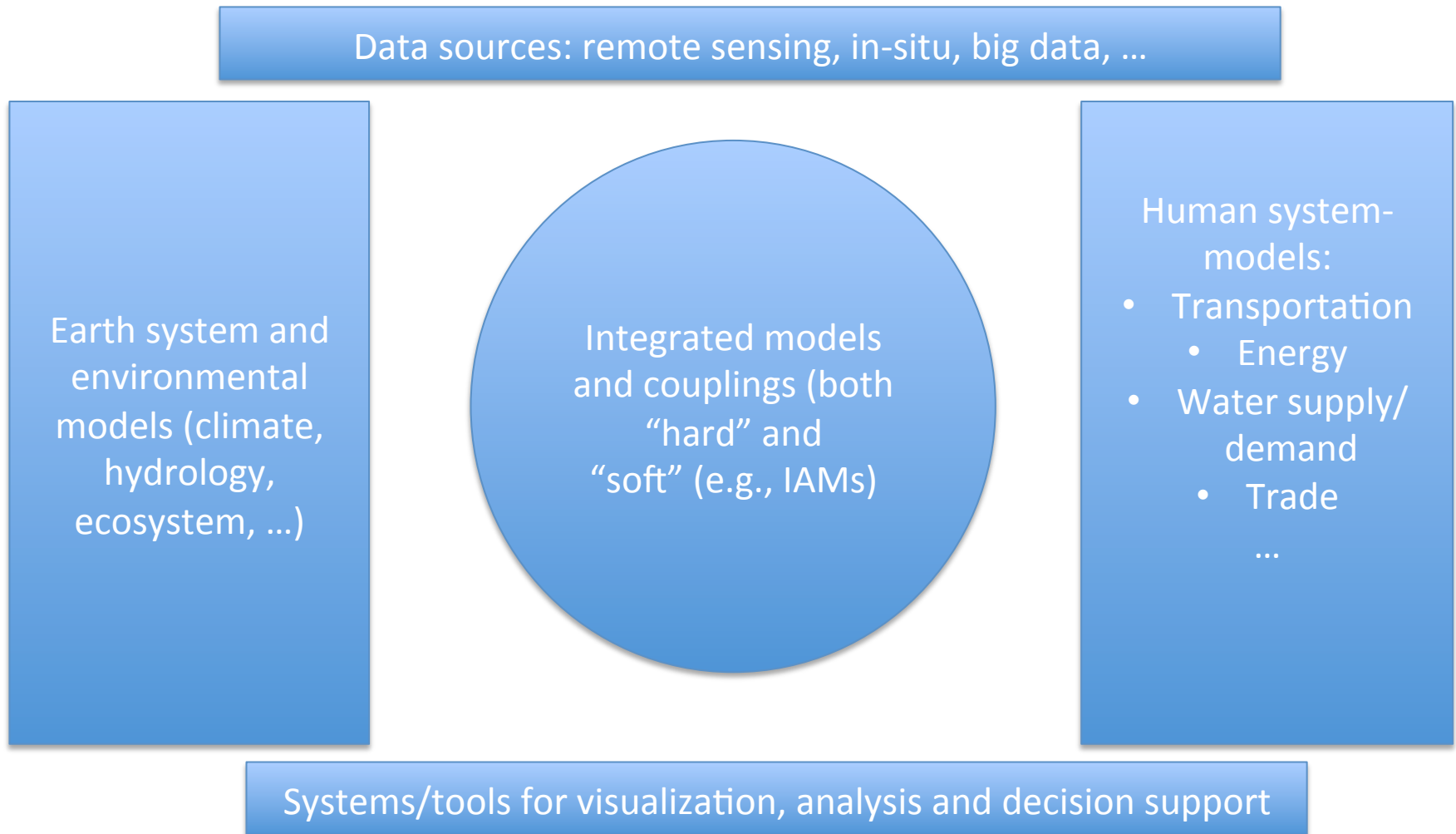
# Who are the users?

- Wide range of users implied by the challenges
- Possible next step from several BOGs: Develop a “typology of users”
- Purpose: Clarify information needs, considering both user characteristics and decision content
- Example decision content fields
  - Sectors/systems involved (water, energy, land, urban design, ...)
  - Options under consideration
  - Timing issues (decision horizon and date)
  - ...
- Example user characteristics:
  - Type of organization
  - Decision-making process and criteria
  - Typical analysis methods and information used (trusted sources)
  - ...

# What are the tools?

- Science of decision support provides insight into how to “bridge the gap”
- In general, data sources and modeling tools are diverse – what’s needed are
  - A range of integrated models (not just integrated ASSESSMENT models)
  - Not just remotely-sensed data, but wide range of in-situ and newer sources (“big data”)
- However, we still see large potential benefit from focusing on RS and IAMs

# Flexible framework for integrating data and models for analysis and decision support



After Bob Vallario (DOE) for E-W-L modeling and analysis

# Possible next steps...

- Submit decadal survey white paper from land use breakout
- Create a space within NCANet to continue the conversation
- Identify and complete specific writing assignments to provide input to a range of written products (Kathy will lead “products” discussion)