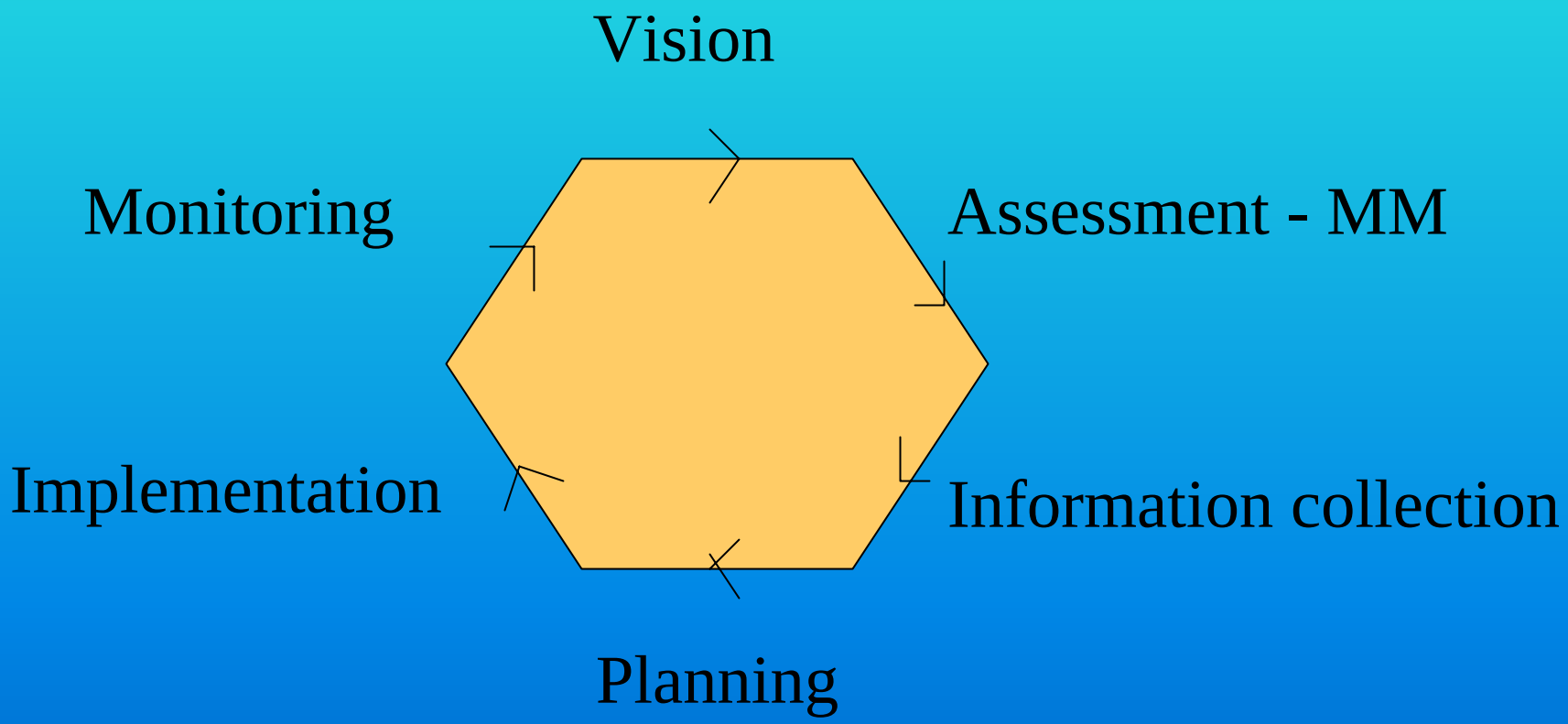
Too late to be a pessimist!

Mediated Modeling as a tool to integrate Science and Democracy

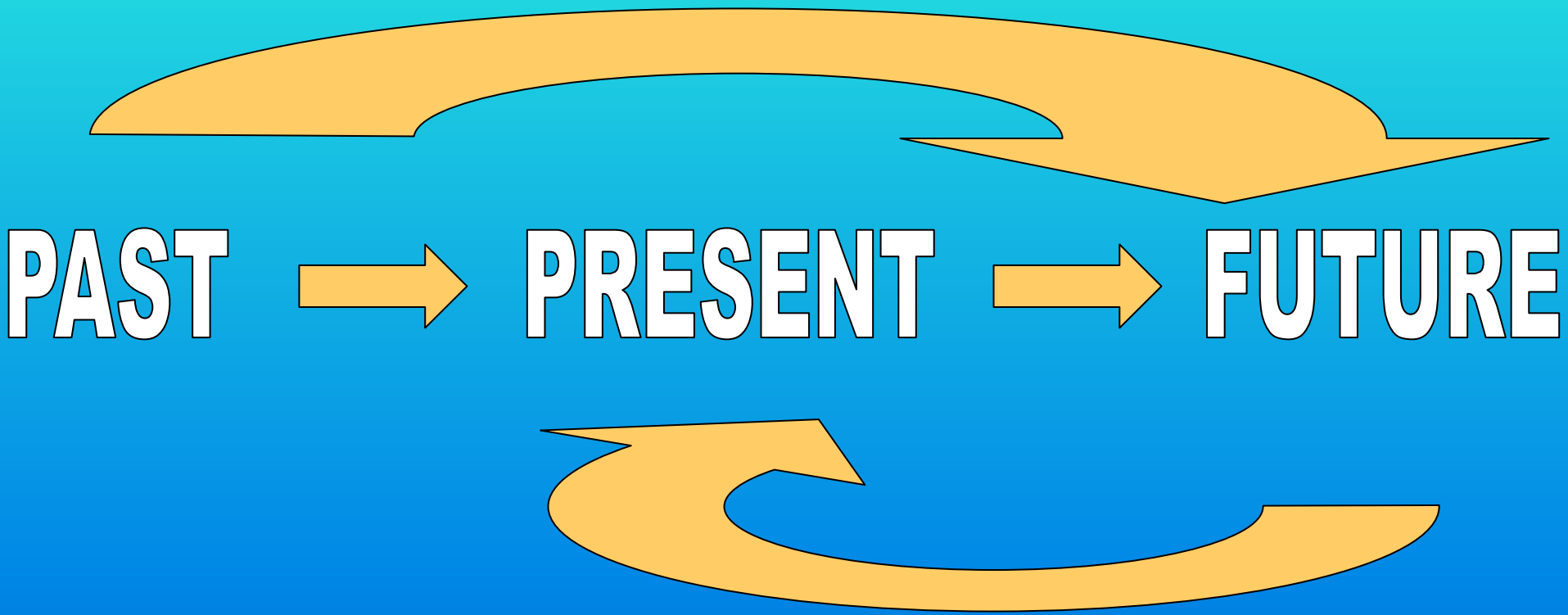
Ecological Economics

- Multi-disciplinary field
- Adheres to ecological principles and design an socio-economic system that fits within the ecological principles.
- Practical problem solving

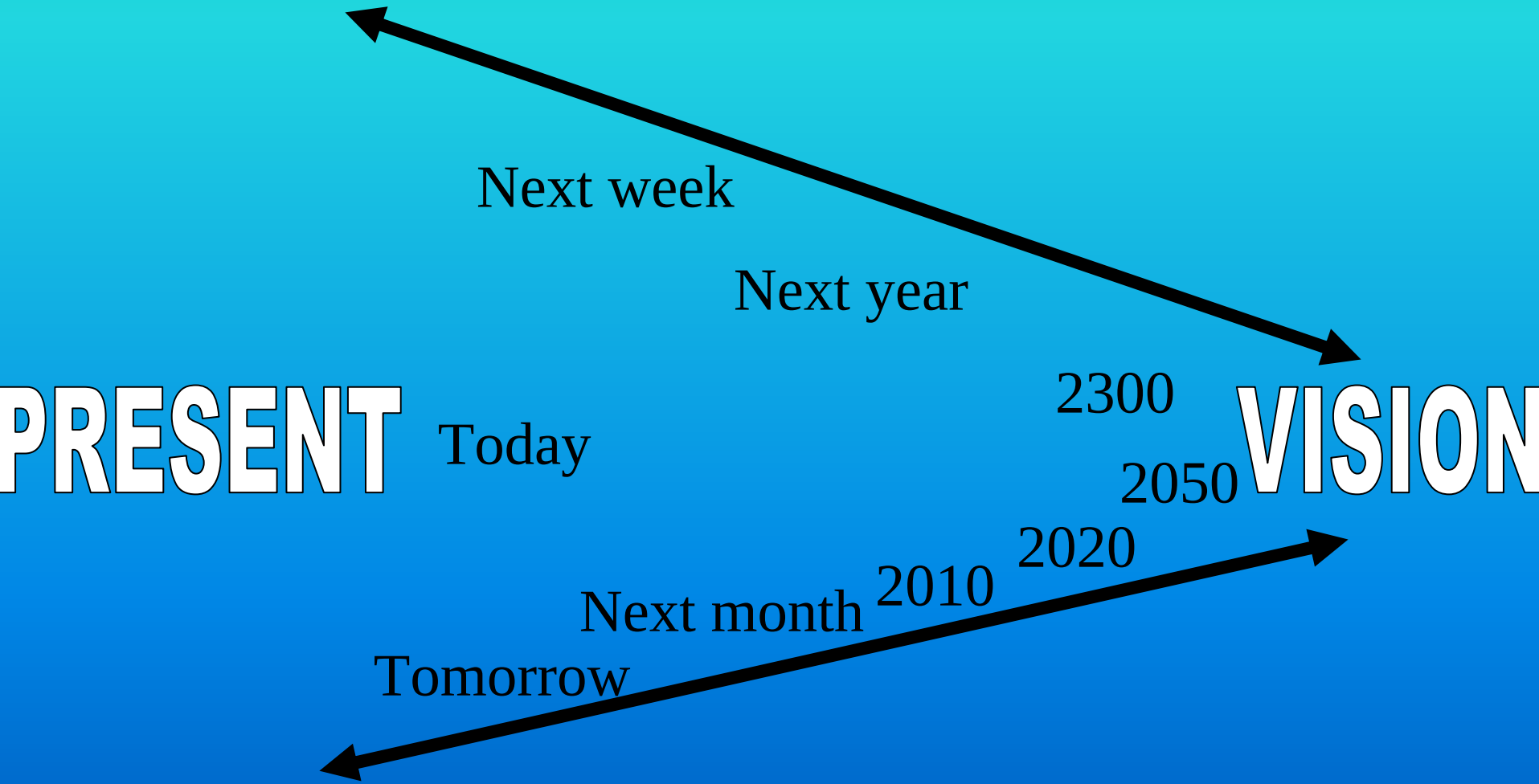
Decision-Making as Adaptive Management



Desirable future?



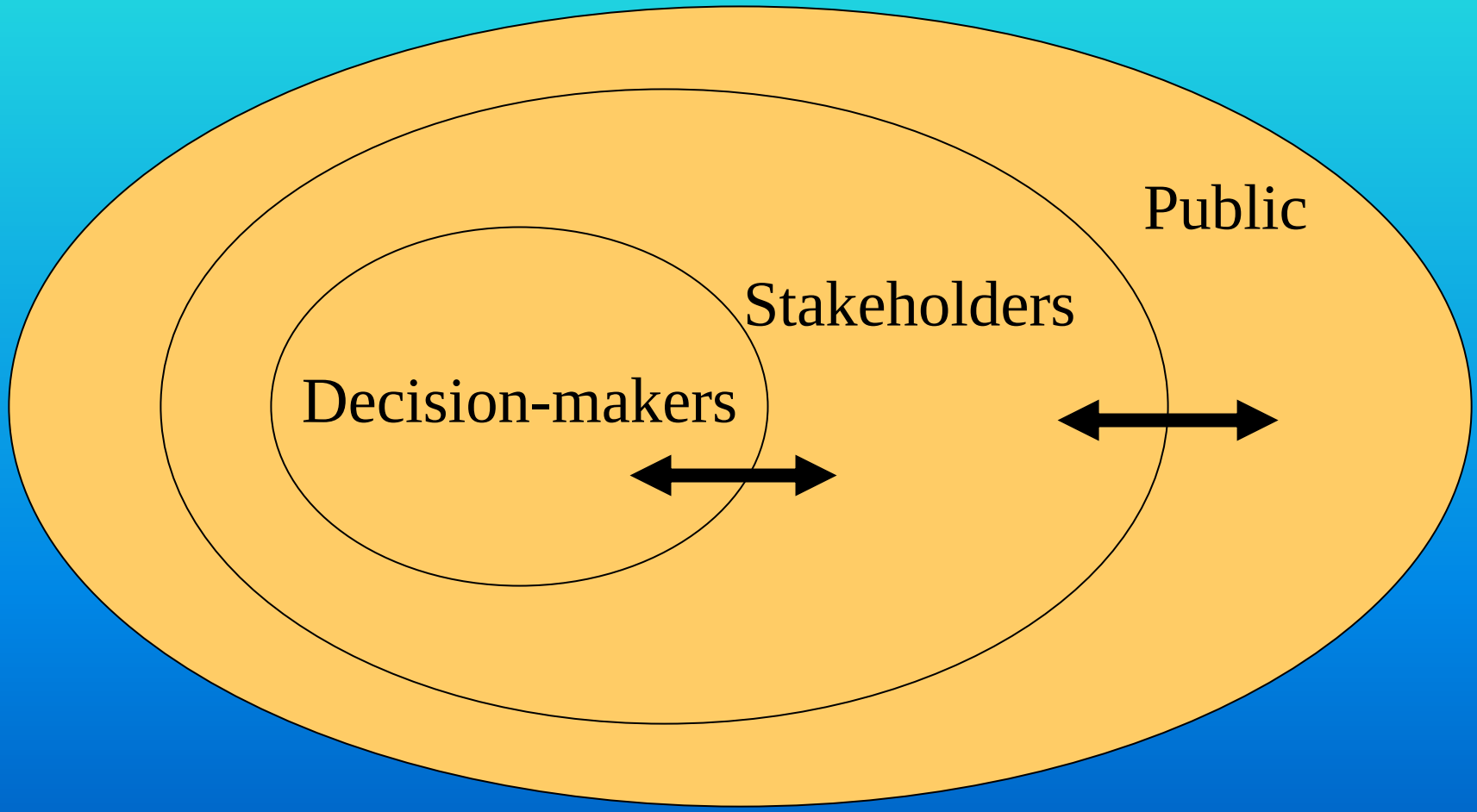
FROM VISION TO ASSESSMENT



Rationale for Participation in Decision-Making

- Integrated Ecological, Economics and Social context of environmental challenges
- Contentious issues - conflict among actors
- Complex, non-linear relationships at multiple scales - vertical integration
- Large scale consequences and irreversible alterations
- Scientific uncertainty
- Distribution cost uneven - environmental justice

Stakeholder versus Public participation



Characteristics of a Mediated Model

Constructed by stakeholders (about 10 - 30)

Modeling for understanding rather than prediction

Uses software that is easy to understand (STELLA)

Flexible and easily adjustable over time

Synthesis

All models are wrong,
some models are useful.

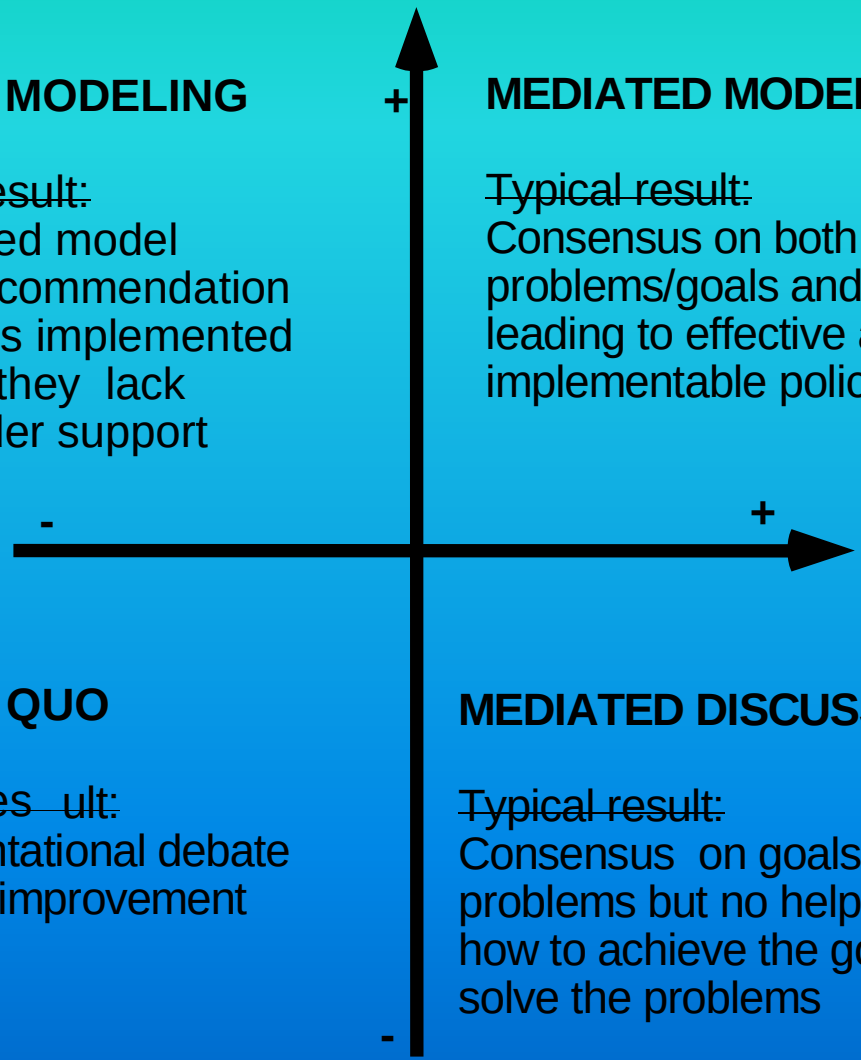
Deming

Modeling…… as a group process

- Raising the SHARED level of UNDERSTANDING about a complex system and its dynamics

- CONSENSUS BUILDING about the current worldview, a preferred future and the way to reach it

Degree of Understanding of the System Dynamics



EXPERT MODELING

~~Typical result:~~
Specialized model whose recommendation never gets implemented because they lack stakeholder support

MEDIATED MODELING

~~Typical result:~~
Consensus on both problems/goals and process - leading to effective and implementable policies

Degree of Consensus among Stakeholders

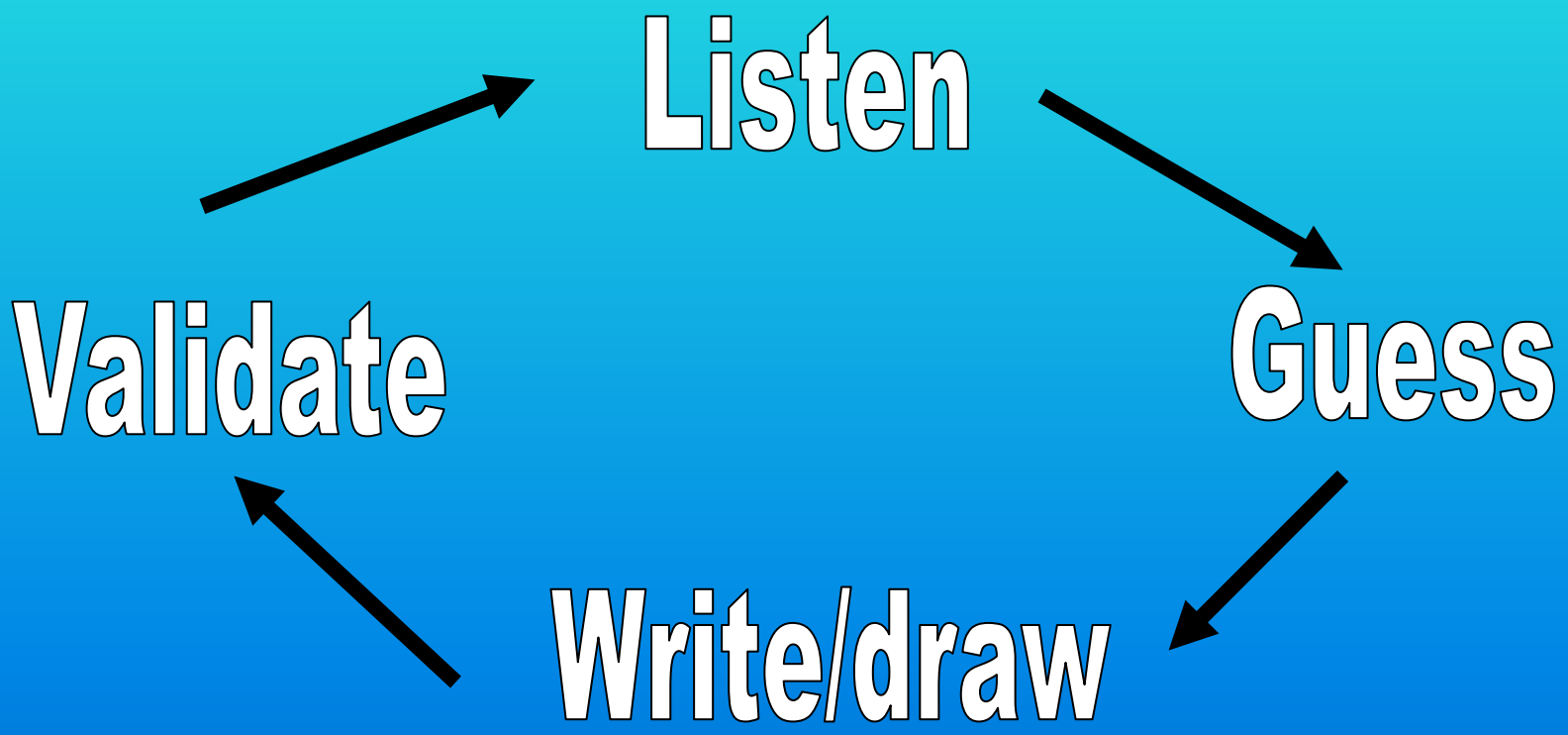
STATUS QUO

~~Typical res ult:~~
Confrontational debate and no improvement

MEDIATED DISCUSSION

~~Typical result:~~
Consensus on goals or problems but no help on how to achieve the goals or solve the problems

Listening cycle



Source: Conklin, 2006

Requirements for a Mediated Modeling process

- Complex issue
- Stakeholders open to communication

Specific characteristics of Mediated Modeling that contribute to making it work

- Gets people to think “out of the box” in a new language focused on the whole system
- Keeps participants actively involved
- Structures the discussion and the thinking in new ways
- Forces the group to become specific and explicit and to define and quantify assumptions and views each step of the way.

Generic workshop process (30-50 hours)

Introduction: Group, software, ground rules, envisioning, problem definition and systems boundaries

Qualitative model:
Sector definition, stocks and flows, feed back loops

Quantitative model: Quantification, data gathering, time lags

Simulation: Testing, sensitivity analysis

Consensus based conclusions & action program

Results

- Short-term: recommendations or action plan and a simulation model.
- Medium-term: a self-organizing group.
- Long-term: model becomes part of an adaptive management program.

Mediated Modeling – Netscape

http://www.publicservice.vermont.gov/planning/mediatedmodeling.html

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Participatory Energy Planning

Mediated Modeling

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Mediated Modeling

Welcome to the Participatory Energy Planning - Mediated Modeling project, a series of workshops about electrical energy in Vermont. Using a method called Mediated Modeling, participants at the workshops:

1. **Create a Shared Understanding** of the electrical energy realities in Vermont.
2. **Collaborate to Build a Computer Model** that simulates the interrelationships that affect issues like cost, reliability and environmental impact.
3. **Reach for Consensus on Recommendations** for Vermont's energy future.

Four workshops are scheduled in 2005. Although participation is by invitation only, the meetings are open to the public, and the materials distributed to the participants and created at the workshops can be accessed on these web pages in the dropdown menus for each workshop on the right-hand side of each web page.

You can see the model as it develops at each workshop. Navigate to the instructions for viewing and running the model by clicking on the dated model within the drop-down menu for each workshop on the right-hand side of each web page.

The public is invited to view the postings of the workshop participants on the Participatory Energy Planning - Mediated Modeling Message Board.

Workshops:

Introductory Materials

Workshop 1, Sept. 6, 2005

Workshop 2, Oct. 4, 2005

Workshop 3, Nov. 1, 2005

Workshop 4, Dec. 6, 2005

Messsage Board

Glossaries:

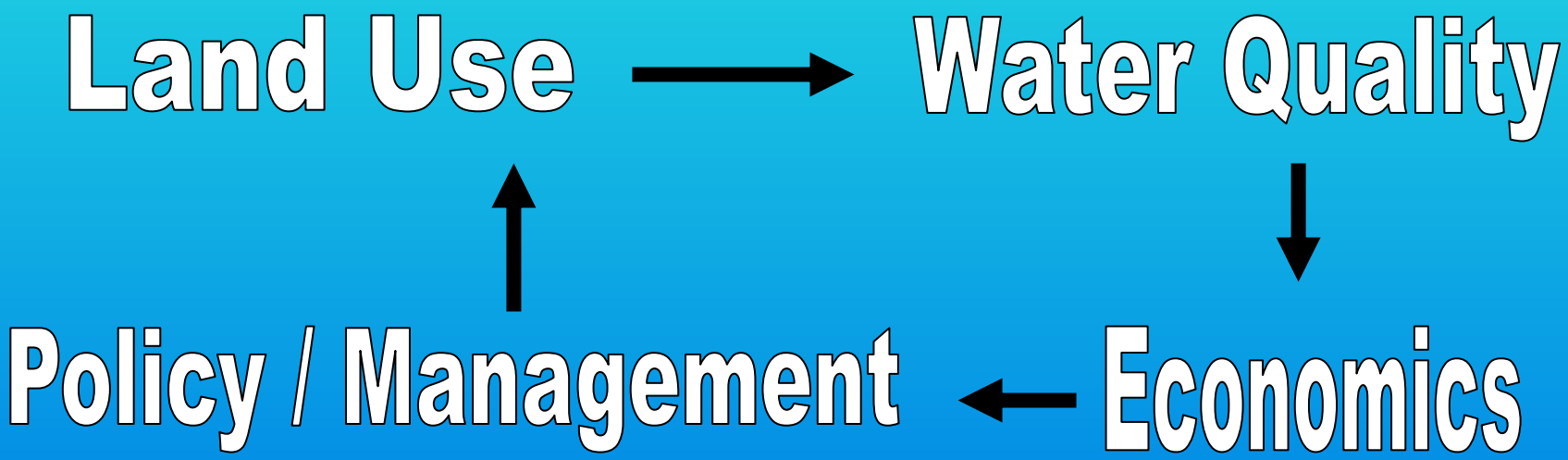
Modeling Terms

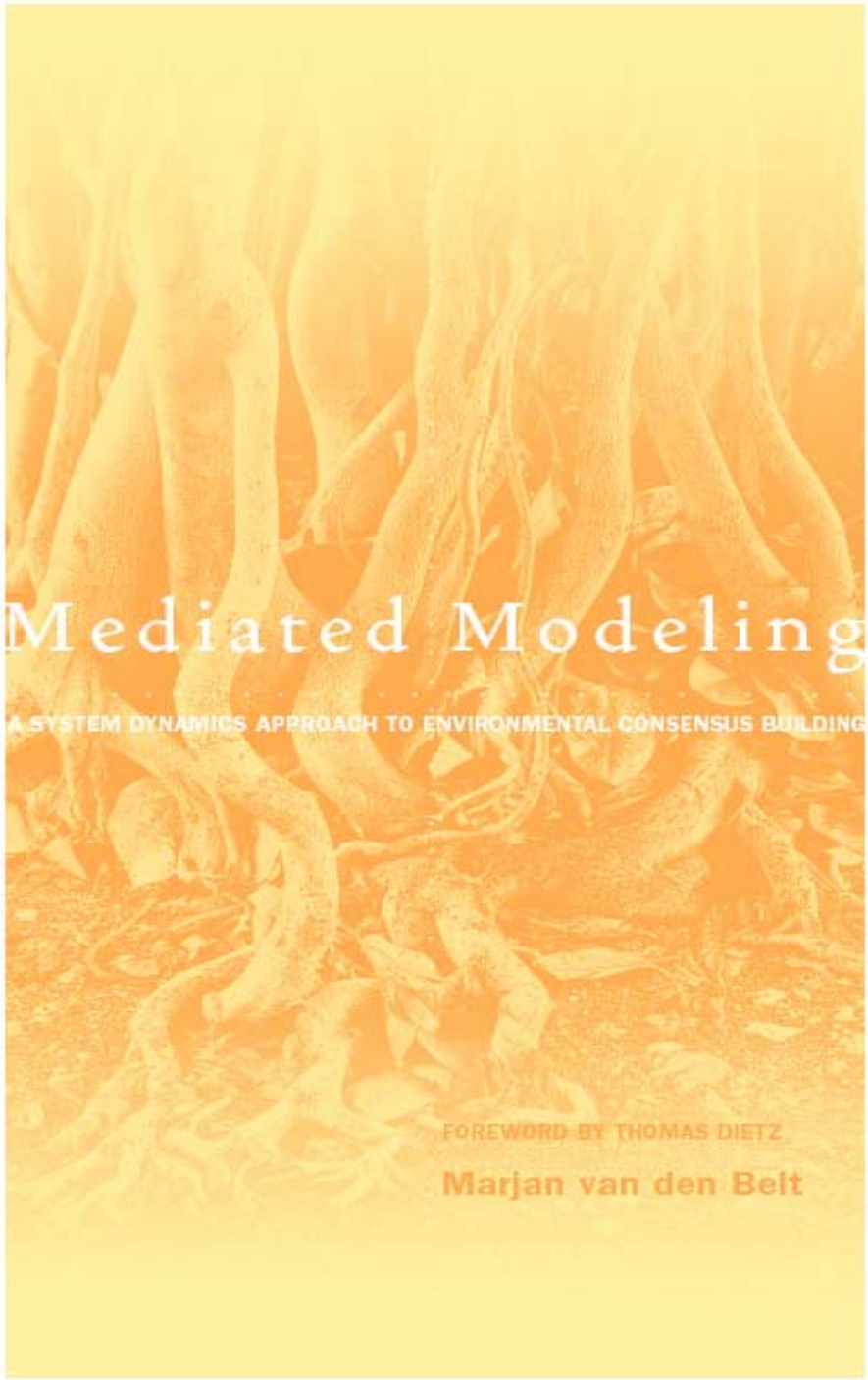
Energy Terms

Information Resources

Document: Done (3.17 secs)

Lakeshore protection in VT
Univ. of Vermont graduate course





Thank you!

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