

Sustainable Future Scenarios

February 21, 2014

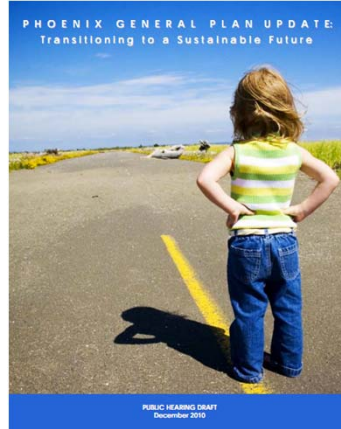
David Iwaniec
Central-Arizona Phoenix LTER
Global Institute of Sustainability, Arizona State University



General Plan Phoenix

“The city’s General Plan is the most important single document that provides long-range guidance for the city’s future development. A research team from ASU in collaboration with the City’s Planning Department has engaged in analyzing the current state of Phoenix, crafting future visions and scenarios, and developing transformative sustainability strategies which have been incorporated into the new General Plan Hearing Draft.”

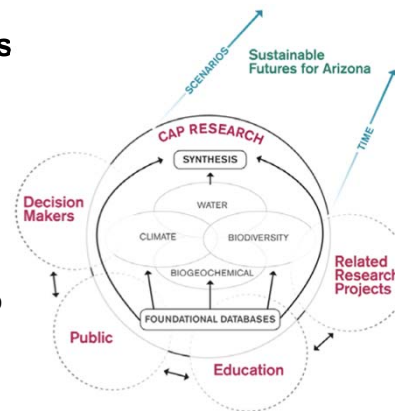
Downtown Devil, April 2011

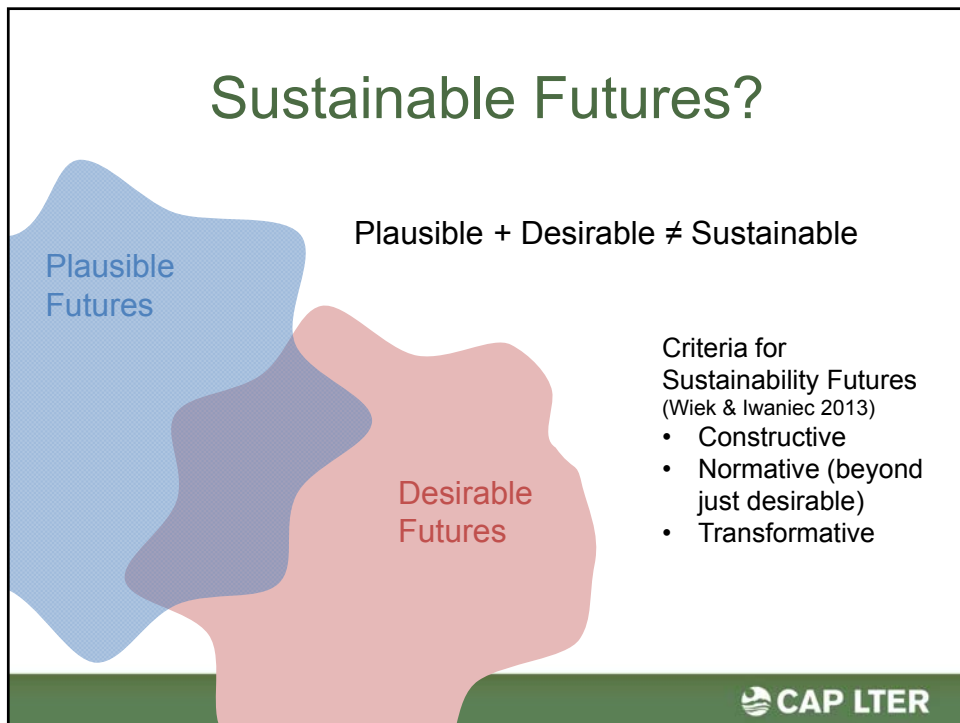
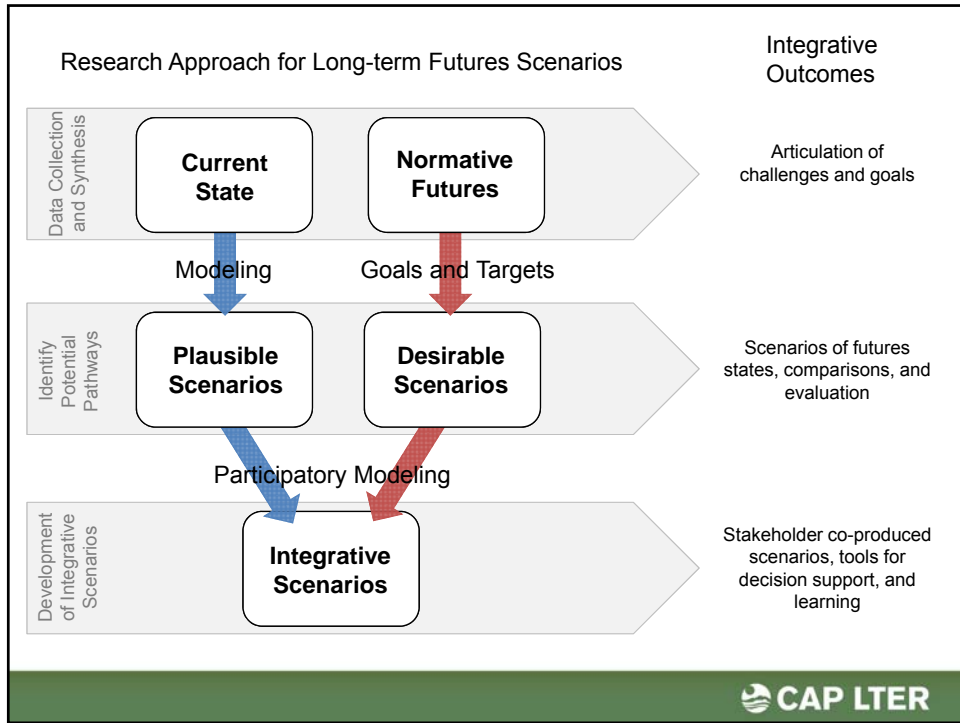


CAP 3

Sustainable Futures Scenarios

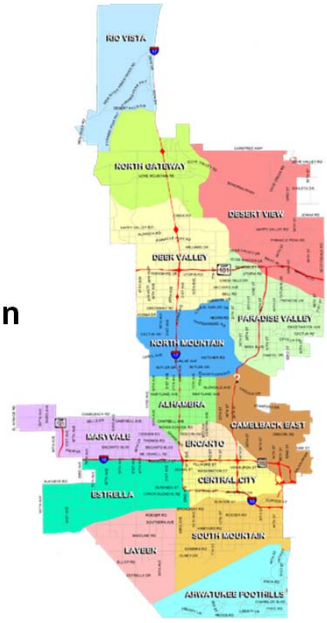
- “SES futures in context...”
- “construct these futures with metro area leaders and planners as full partners.”
- “an integrated participatory-scenario approach...”



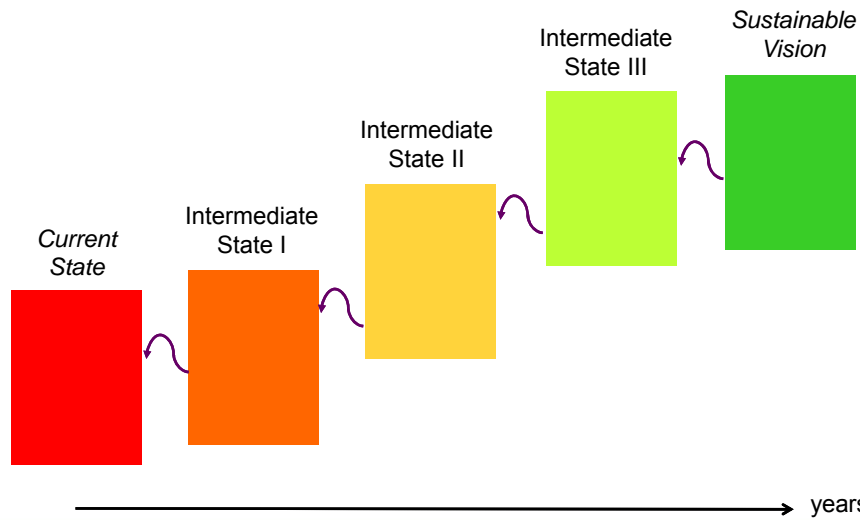


Framing

- **Partnerships**
 - University and City Planning Department
- **Spatial, Temporal, & Planning Domain**
 - Phoenix 2050 General Plan
- **Participatory Setting**
 - Village-level Forum (15 Villages)
 - City-level Workshop (City Hall)



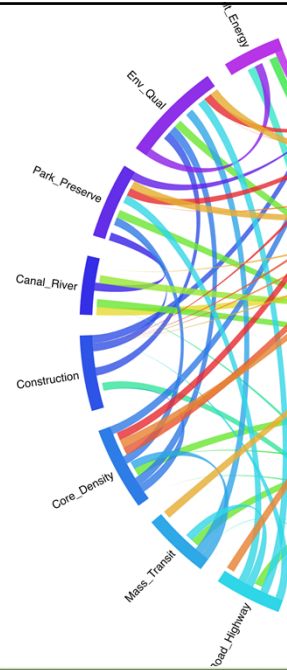
Framing



Elicitation

Values and Aspirations for Phoenix 2050

- **Domains:** Environment, Infrastructure, Community, Economy
- **Specificity:** Vision Elements, Normative Qualifiers, Descriptive Codes
- **Relationships:** Trade-offs and synergies among vision elements
- **Priority:** relative strength of the normative preferences



Diverse and Conflicting Visions



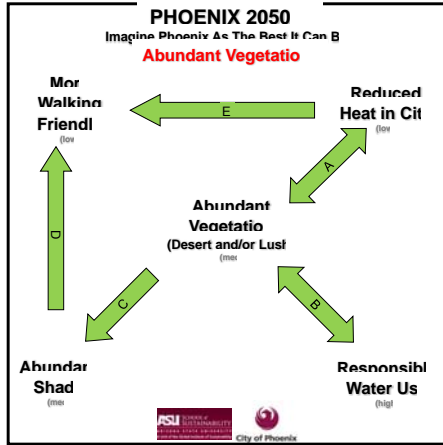
Participatory Modeling

Network Model - qualitative

- Vision elements and associated relationships

Heuristic Subsystem Models - quantitative

- 9 (-1) subsystems with:
 - Systems and normative conflicts
 - High systems-level priority
 - High network-based scores



Revising

Review:

- Elements
- Relationships
- Subsystem



Revising

Review:

Assessments:

- Parameterize
- Conflicts / Trade-offs
- Sustainability Appraisal



Revising

Review:

Assessments:

Articulate:

- Report-back
- Model Narrative
- Visualization



