An aerial night view of a city skyline, likely Dubai, with numerous skyscrapers illuminated. The image is overlaid with a semi-transparent grid of binary code (0s and 1s) in a reddish-pink hue, creating a digital or data-themed aesthetic. The sky is a deep blue, and the city lights are a mix of white and yellow.

Urban Breakout

Session Summary

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Key Takeaways

- The DOE perspective: Next-generation energy system resilience in a changing world and climate
 - Provide insights into critical connections rather than deliver decision-specific results
- Variety of Models, Data-Driven Methods, and Questions
 - Research focus and desired specificity
 - Endogenous vs. exogenous: Representation and sensitivities
 - Complexity: Lower and/or upper bound? What are the critical model capacities?
 - Collaborative leveraging and linking of model capacities
 - Data needs
- Diagnoses and Model Evaluation
- Numerical Experimentation and Exploration
- Uncertainty Quantification
- Prospects and limits to “prediction” and predictability
- Need to formalize sub-element’s scope of “urban” research?

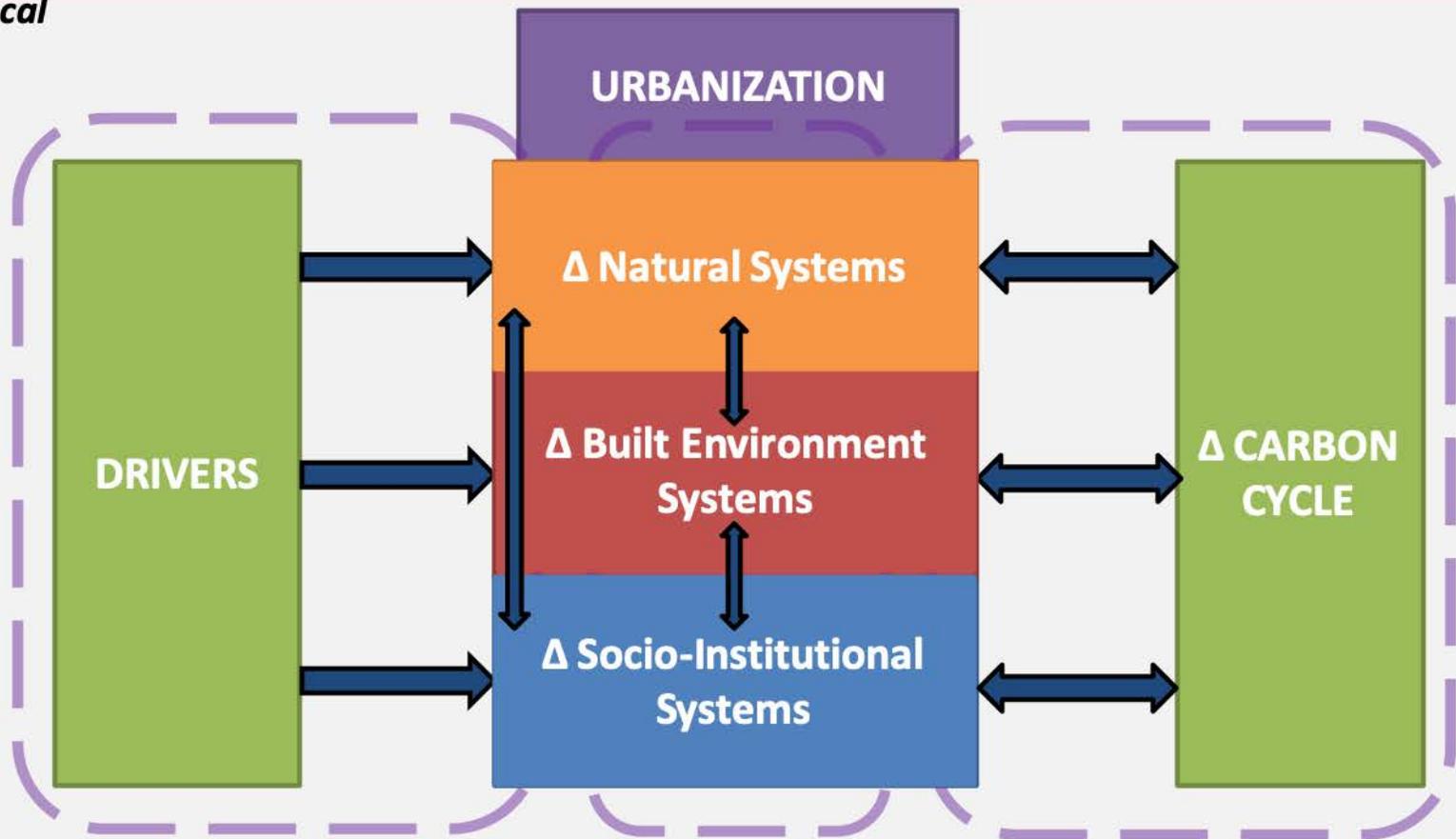
Example of a Conceptual Framework

Preliminary Conceptual Framework

Global

Regional

Local



Source: Romero-Lankao, Gurney, Seto et al. 2014)