

# *Research for an Environment to Deal with Complex System Problems*

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**DHS University Network Summit  
March 20, 2008**



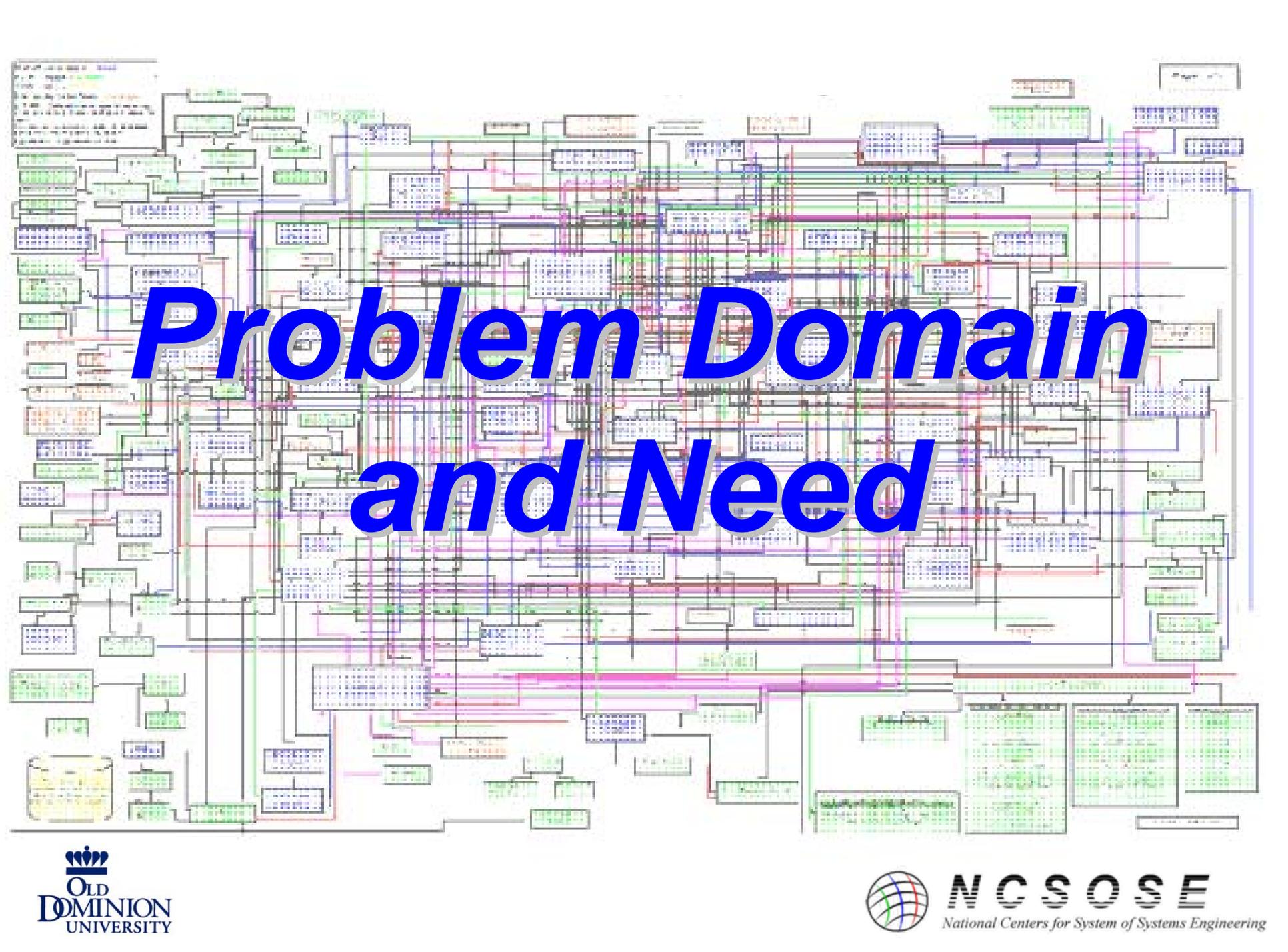
**NCSOSE**

*National Centers for System of Systems Engineering*

# Topics

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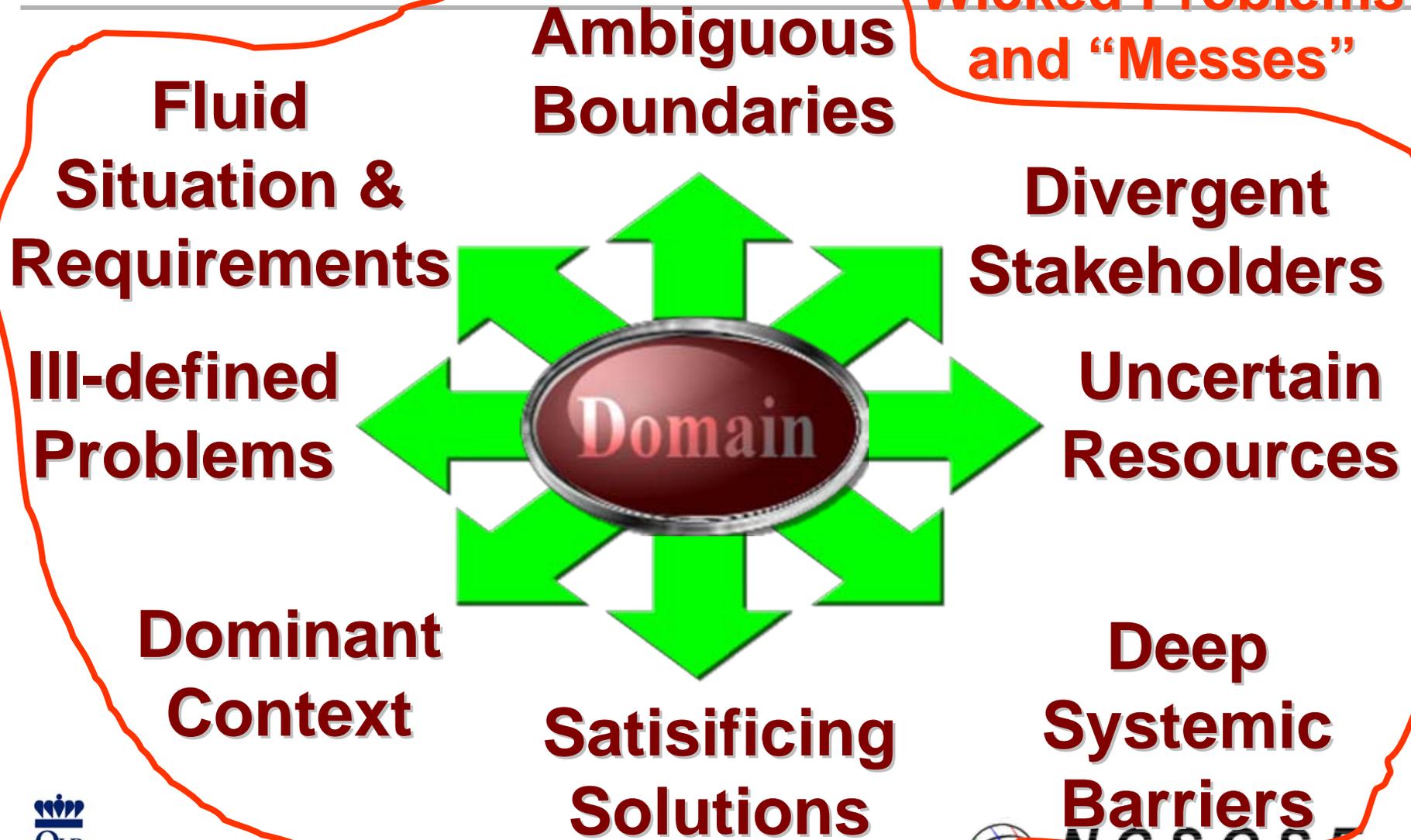
- ➡ **Problem Domain and Need**
- ➡ **Responsive Research**
- ➡ **Research Impact**



# ***Problem Domain and Need***

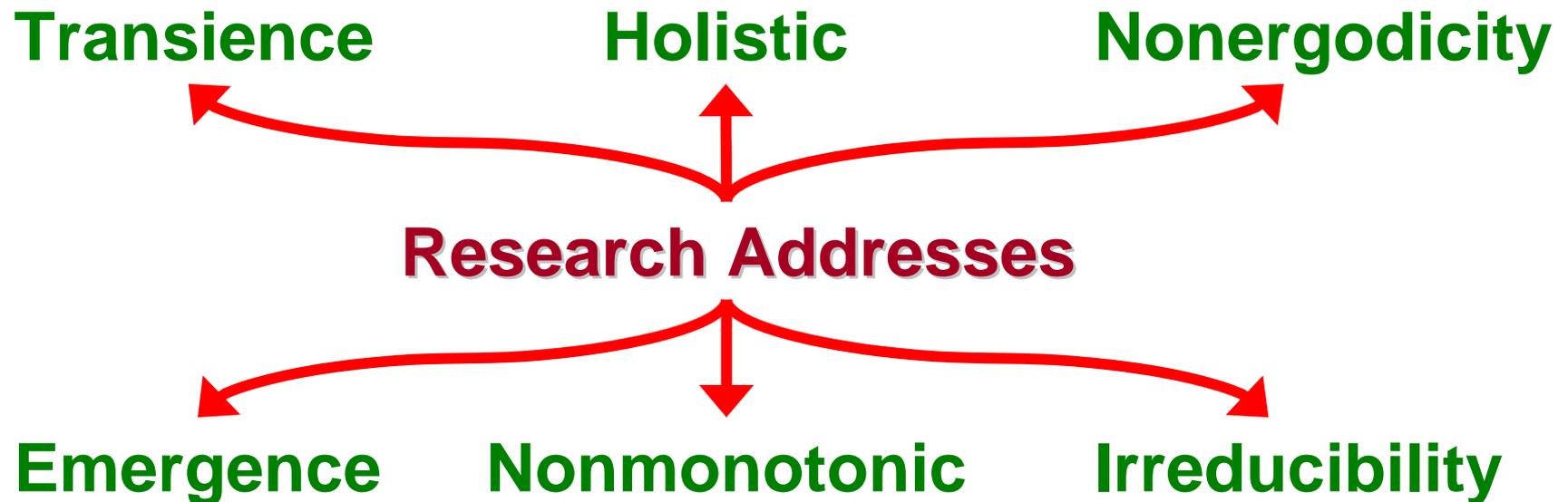
# Complex Problem Domain

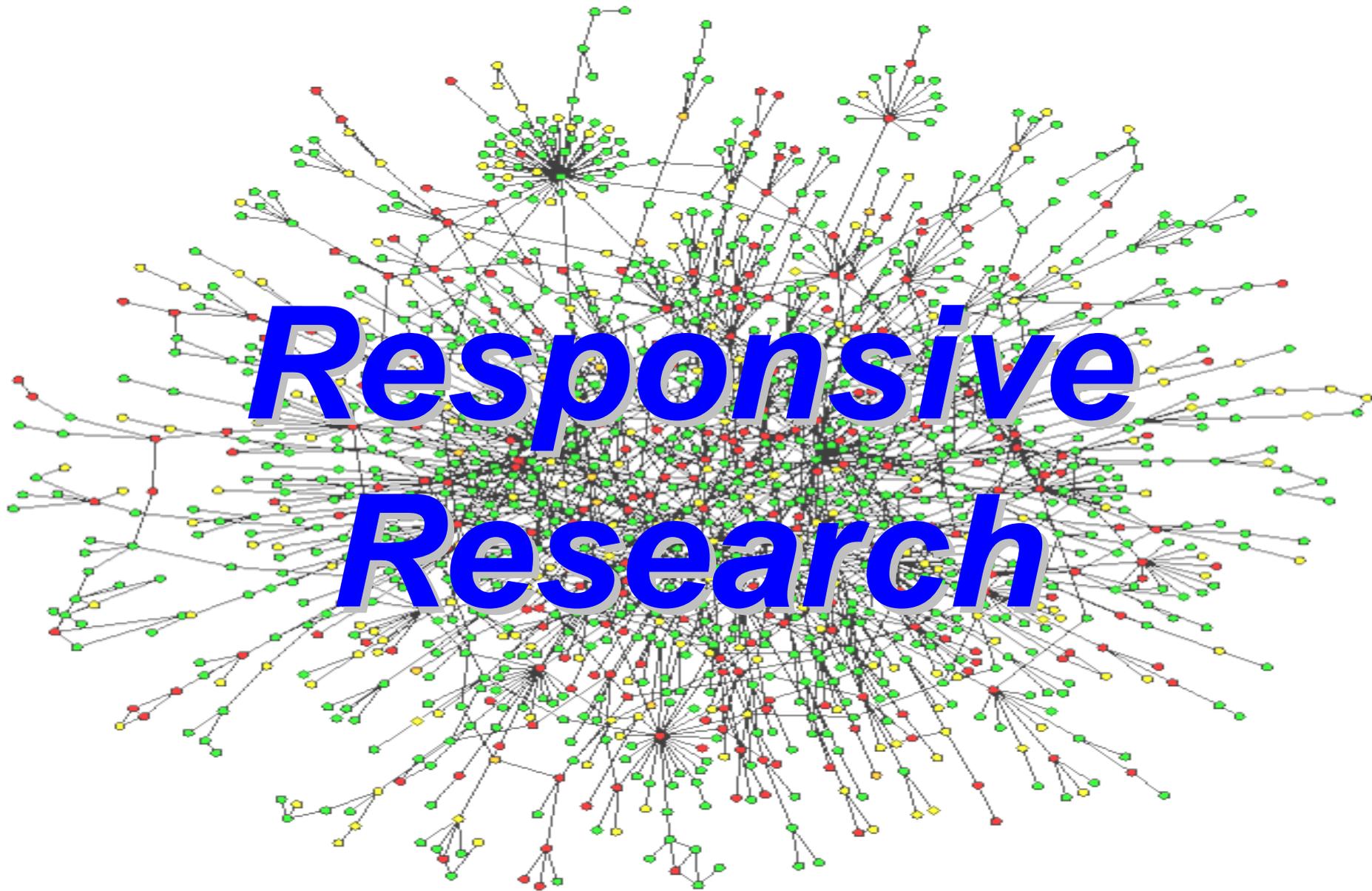
**“Wicked Problems”  
and “Messes”**



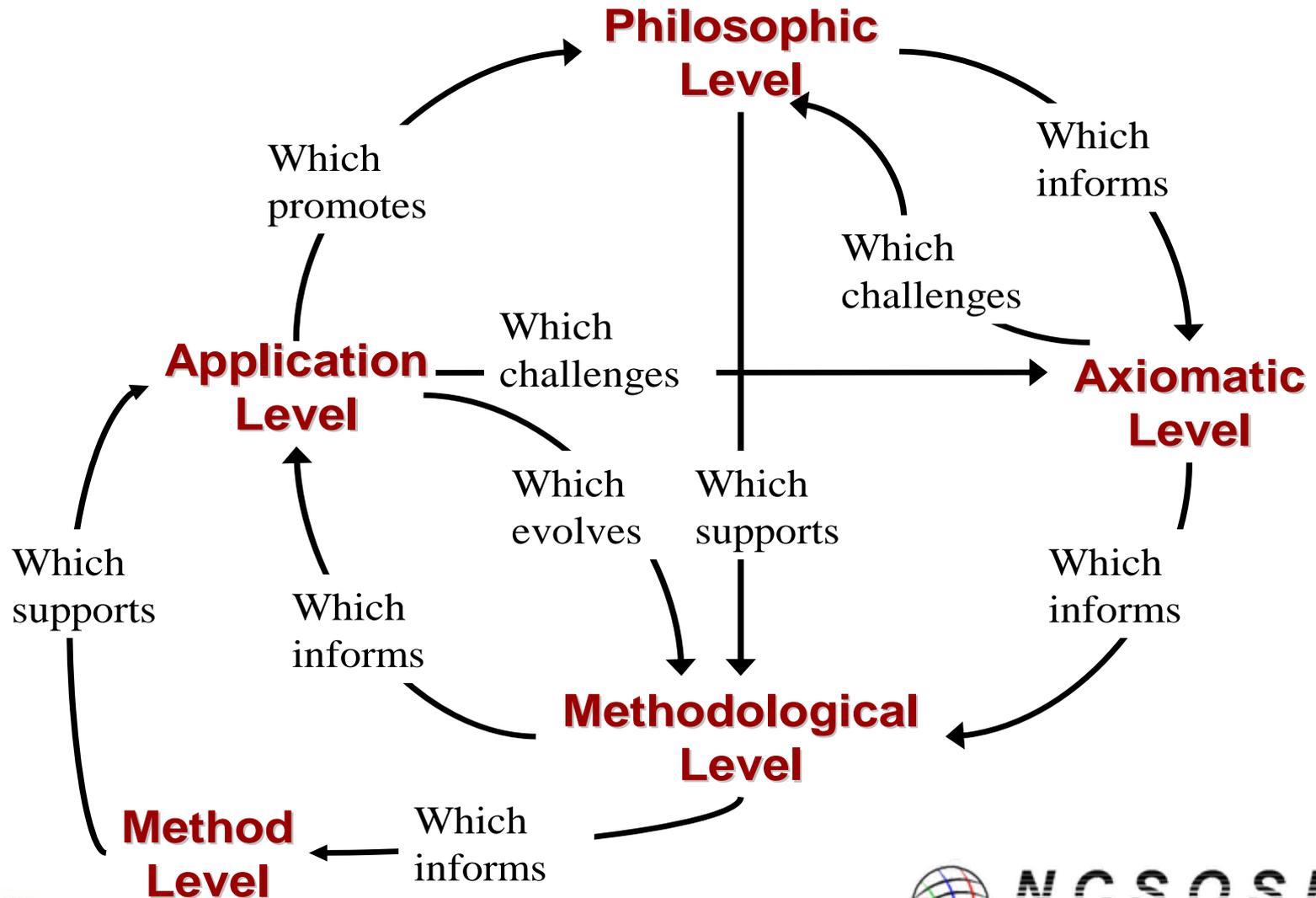
# The Need

- Rigorous research to enable greater effectiveness of decision/policy makers in dealing with complex problem domains.





# Research at Multiple Levels



# Our Research Thrusts

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**1**

**Advance Fundamental  
Knowledge of Complex  
System Problem Domains**

**2**

**Develop & Validate Conceptual  
Design for Advanced Environment**

**3**

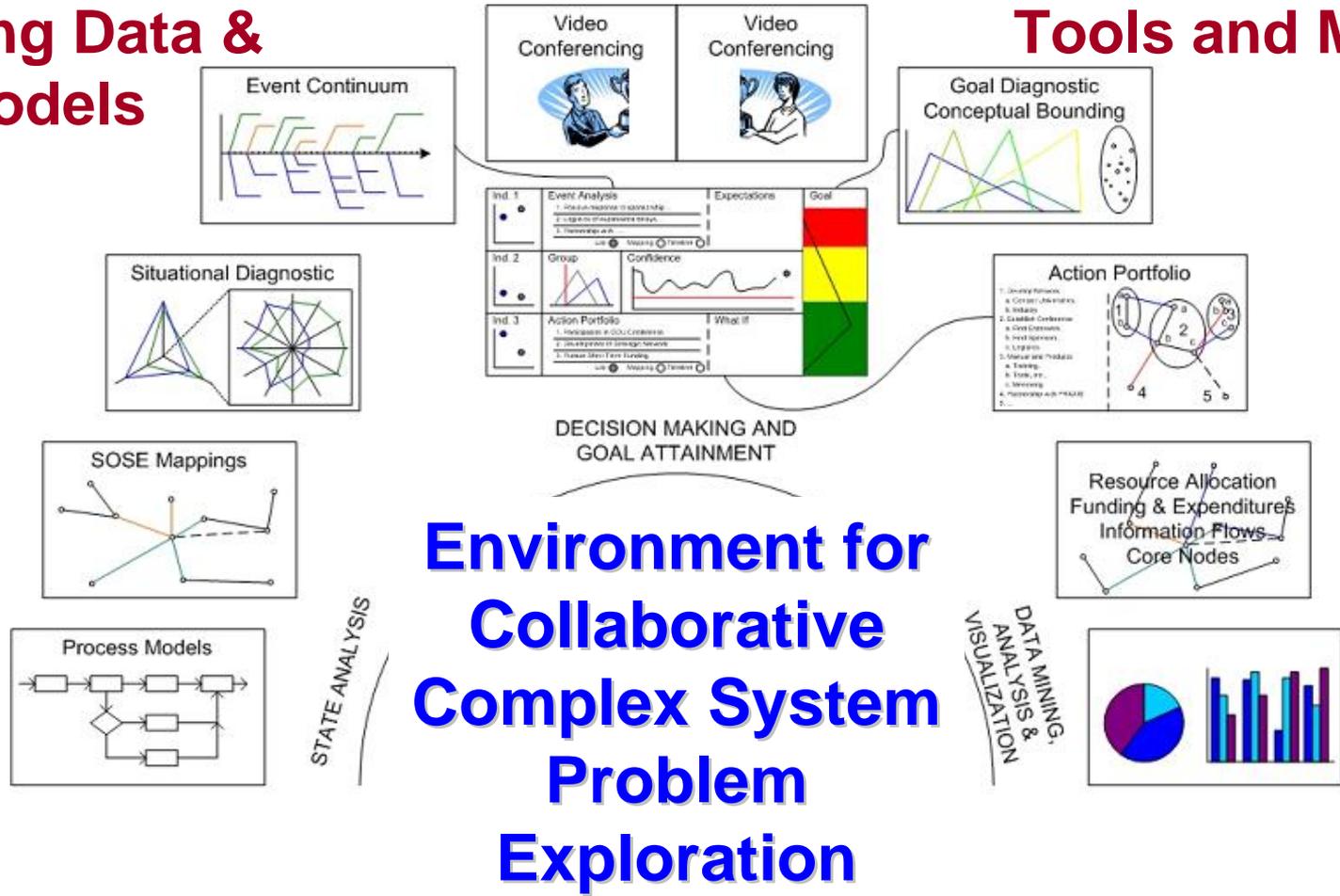
**Spinout Research Utility at  
Each Phase of Research**



# *Research Impact*

# Joint Exploration of Multiple Perspectives

Incorporate Existing Data & Models
Research based Tools and Models



# Research Challenge

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**Our research challenge is difficult, but certainly doable**

