



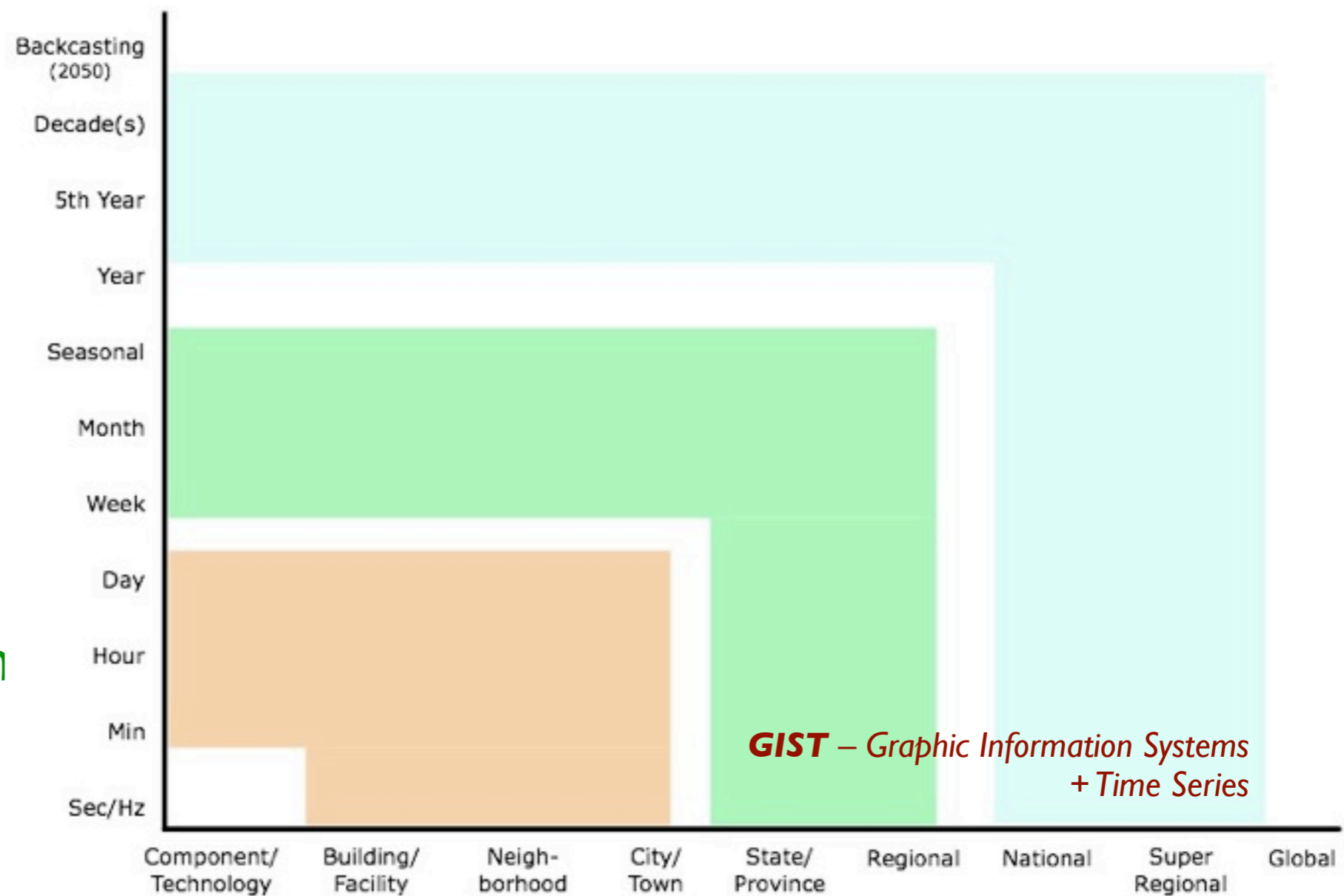
# Green Islands & Energy Research

## Overall Strategy - "Designing for the Dynamics"

- Aggressive End-Use Efficiency
- Diversify Domestically
- Modernize Energy Networks

## Close Interaction

- Planning-Policy
- Infrastructure & Investments
- Technology Design and Demonstration
- System Operations





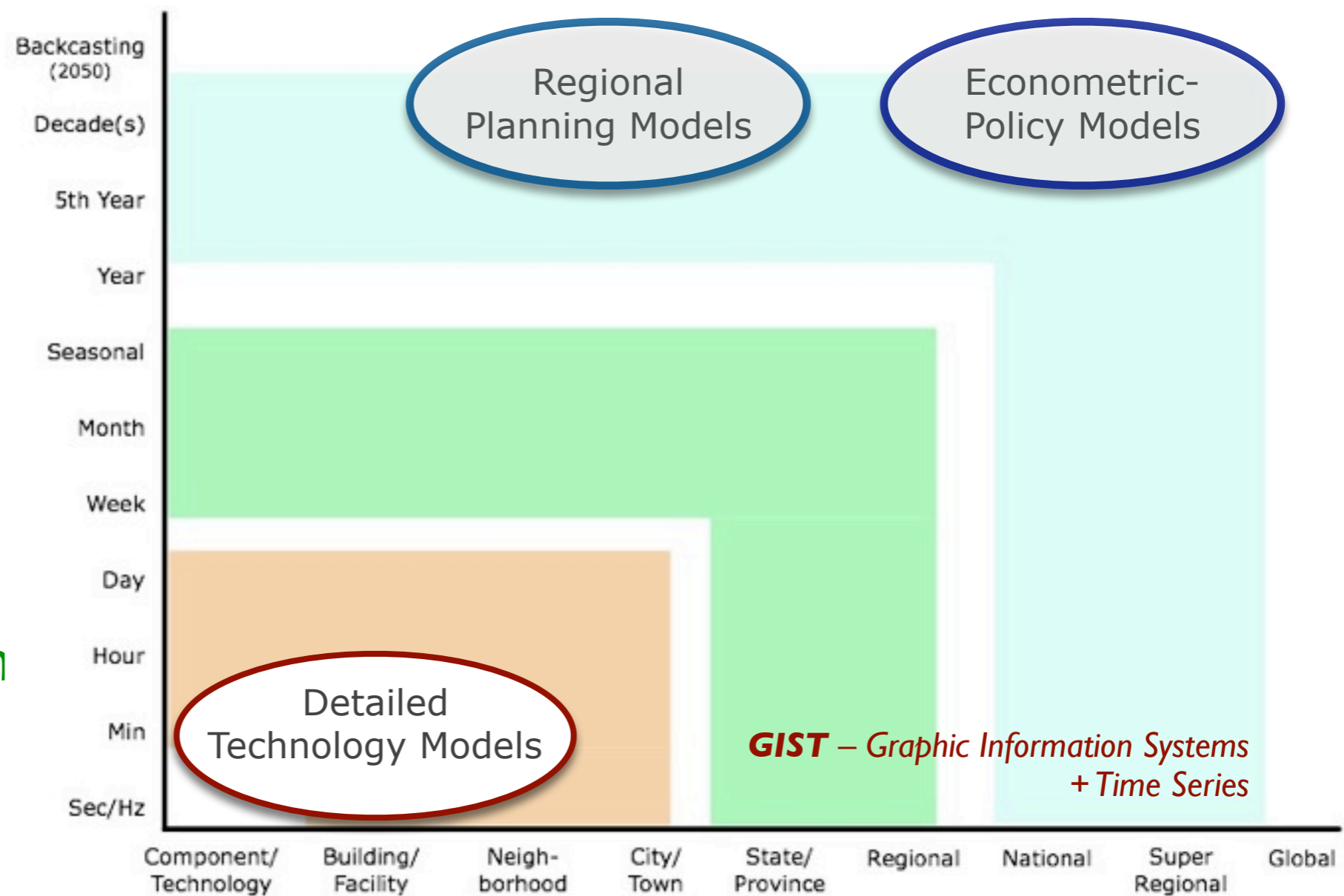
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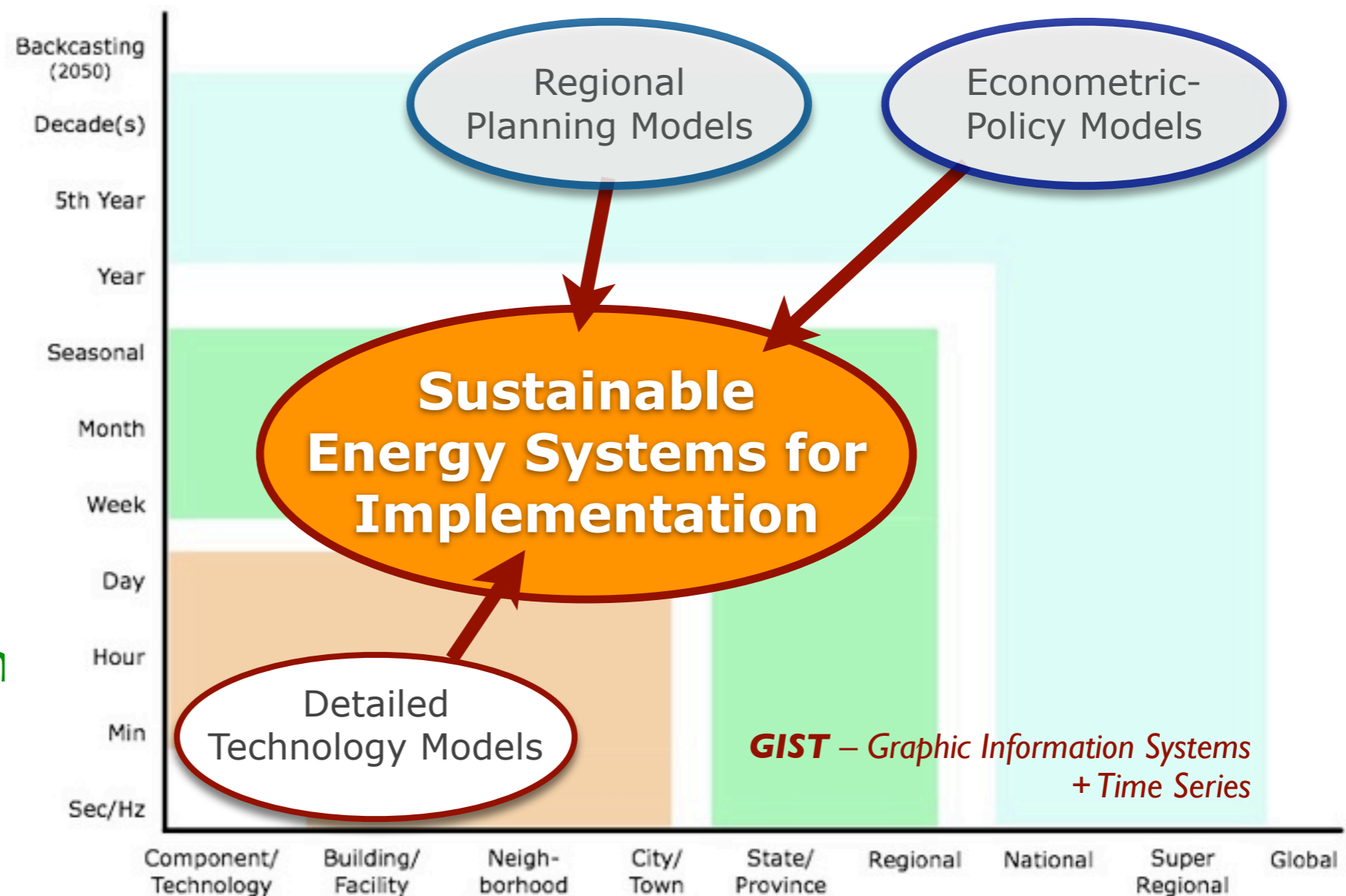
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# New Research Platforms & Test Beds for Sustainable Energy Transportation Systems

- **Overall Motivations** – Who, What, Where, When, Why (and How)  
< Why, How, [What, Where, When], Who >
- **Valuable Information** for Who and for What?
  - Which Stakeholders? Which “Objectives?” When Learning?  
*Flexibility in Operations / Adaptability over time?*
- **Research Platforms?** What do we need/want?
  - For “Research, Education and Practical Impact” (*ejm on thu*)
  - Data & Models - Scenarios & Insights - Technologies & Systems
  - Academia, Companies/Industry, Government & Society
    - *Acquisition, Analysis, Synthesis and Outreach*
  - Atlases & Observatories
    - *Weather, Economy/Built Environment, Networks, etc.*
  - Labs and Centers (*Real and Virtual*)
- **Test Beds** – “Real World Demonstrations”
  - NOT “Proof of Concepts” (Azoreans are not Guinea Pigs)
  - BUT “Integration Demonstration Projects” to demonstrate value

**CRIMEA** – Criteria, Indicators, Metrics, Attributes



# *New Research Platforms & Test Beds for Sustainable Energy Transportation Systems*

- **Which Islands (and Why)**

*< Why, How, [What, Where, When], Who >*

- **Which Research Themes**

- *Smart Island Grids*
- *Renewable Resource Dynamics*
- *Smart End-Uses*
- *Sustainable Mobility*
- *Integrated Island Scenarios*

- *Core/Foundational Research -> “New” Research -> Outreach/Education*

- **Emergent Themes**

- *Degrees of Aggregation // Flexibility and Control*
- *Cost-Effectiveness/Affordability/Employment/Finance/Subsidization*
- *Resource Use and Distribution*
- *Resource Consumption and Environment*