l've never been more encouraged about the future than lam today



System Domains







H₂O example

100°C



0°C

Solid



Liquid



Gas





Time-lags Allow Overshoot

Time

Biomass

Time

Success Strategies

Attribute	Pioneer	Succession
Resource Consumption	high	low
Resource Efficiency	low	high
Growth Rate	high	low
Longevity	short	long
Diversity	low	high
Complexity	low	high
Relationship With Others	isolated	cooperative

System Domains - Summary

- Created by system-to-context relationship
- Transitions can be sharp or gradual
- System behavior changes across transition, sometime dramatically
- One domain ≠ whole character of system

Where are we in history?

World Population

Humanity's Ecological Footprint

Limits-To-Growth Challenge

- Non-renewable resources
 => finite
- Renewable resources
 => maximum sustainable yields
- Natural waste processing services
 => maximum sustainable yields

100% Renewable Energy By 2050

World Population

