

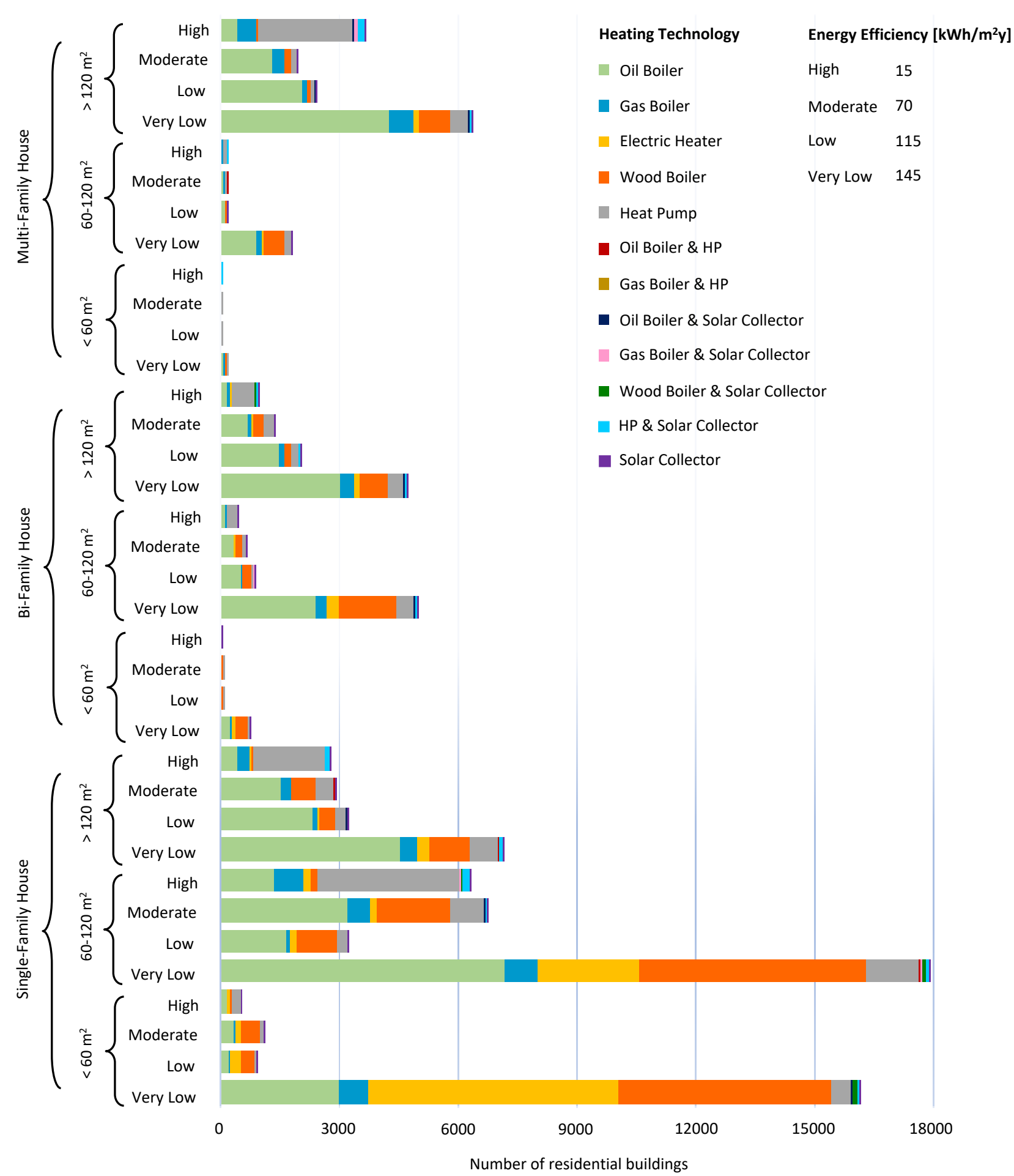
## OBJECTIVES

- Gauge the resiliency and sustainability of a regional energy system
- Reflect on the cohesion between federal and regional energy transition pathways
- Provide a decision-making tool to support the formulation of the cantonal energy plan

## METHODOLOGIES

- Stakeholder participatory process
- Multi Level Perspective
- System Dynamics model with heterogenous actors
- Scenario exploration
- Multi-criteria decision analysis

### Initial (2020) residential building stock of canton Ticino



### Core Stakeholder Workshops

- Parliamentary commission on energy of Canton Ticino
- Cantonal Office for Climate, air, and renewable energies
- Cantonal Office for Energy
- TicinoEnergia
- Azienda Elettrica Ticinese
- EnerTI

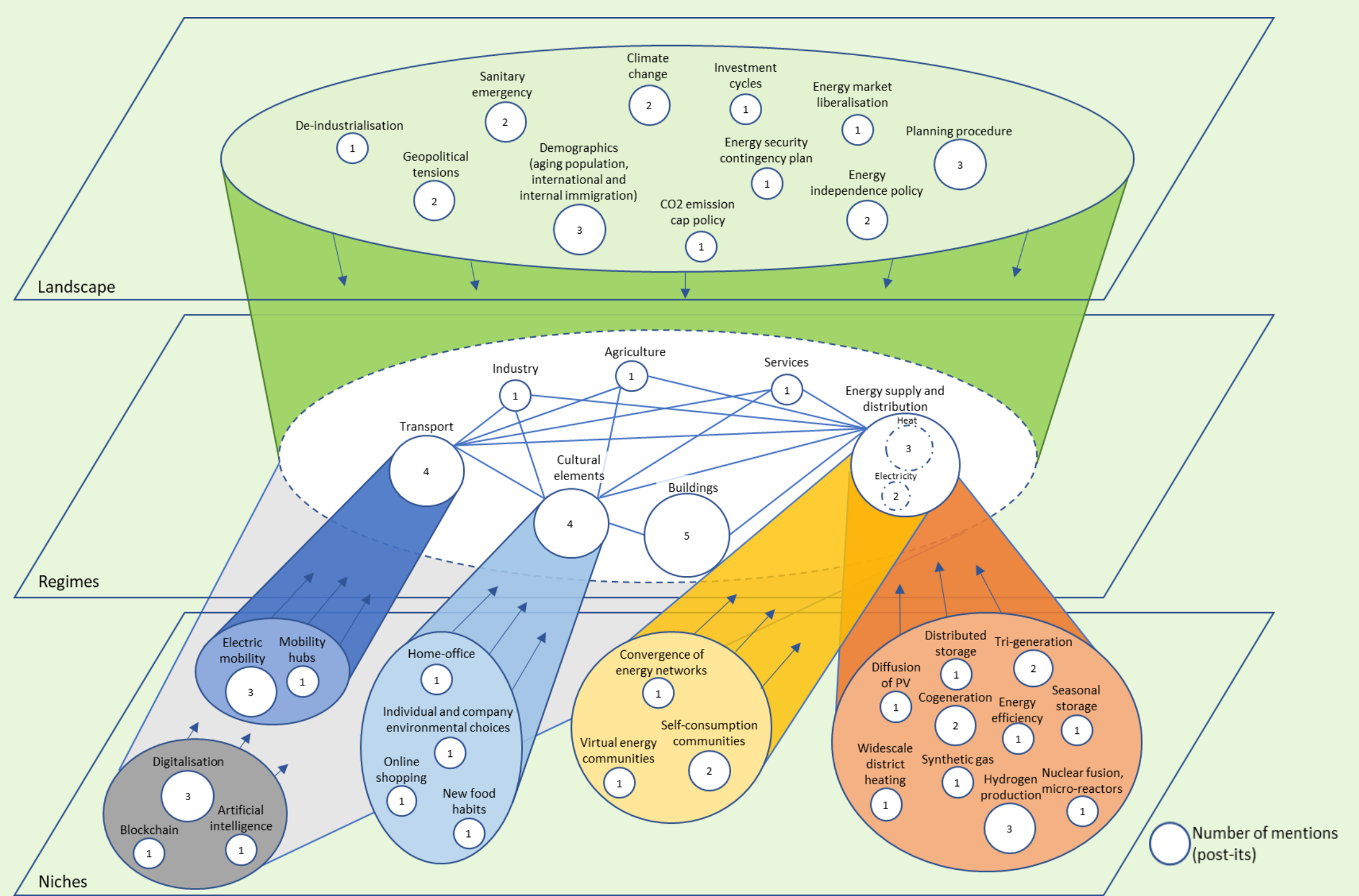
Can you include in the model social aspects, political aspects, mentality, etc.?



There are many different models and multiple scenarios: what is the added value of this model? The difficulty is in representing the complexity of the system. Perhaps it is better to focus on the relationships between the components of the system.

I am interested in understanding the effects of incentives and measures.

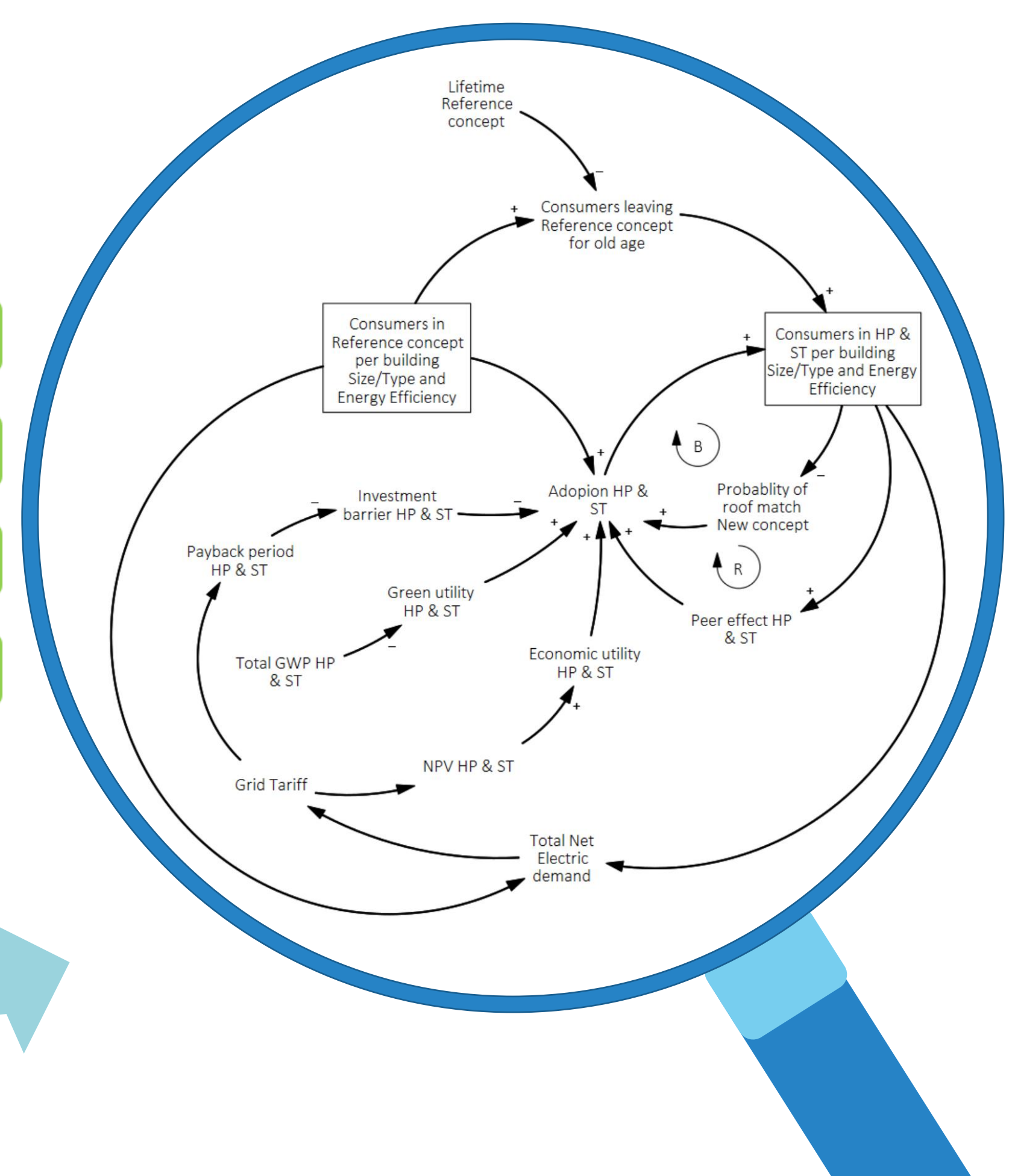
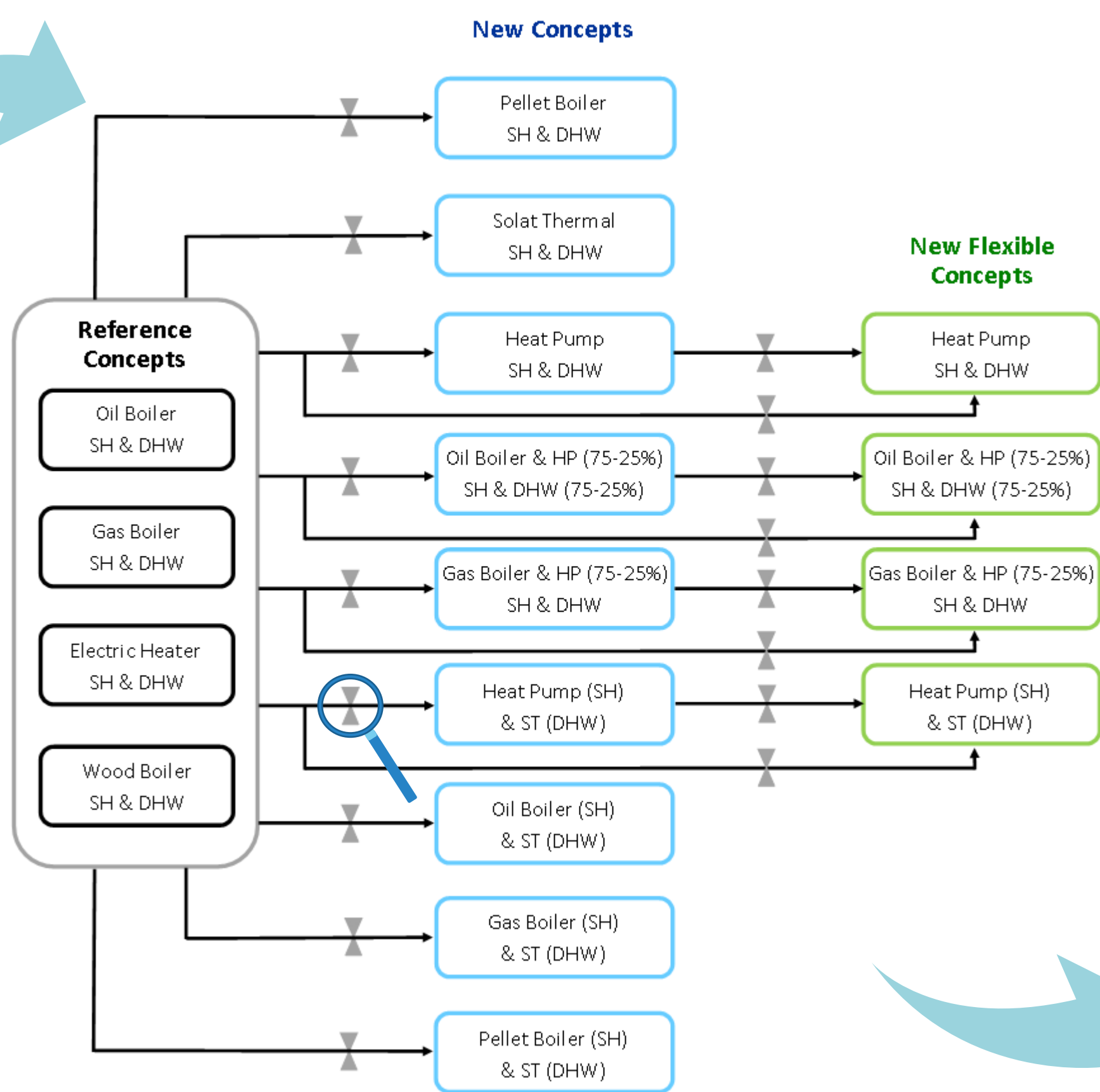
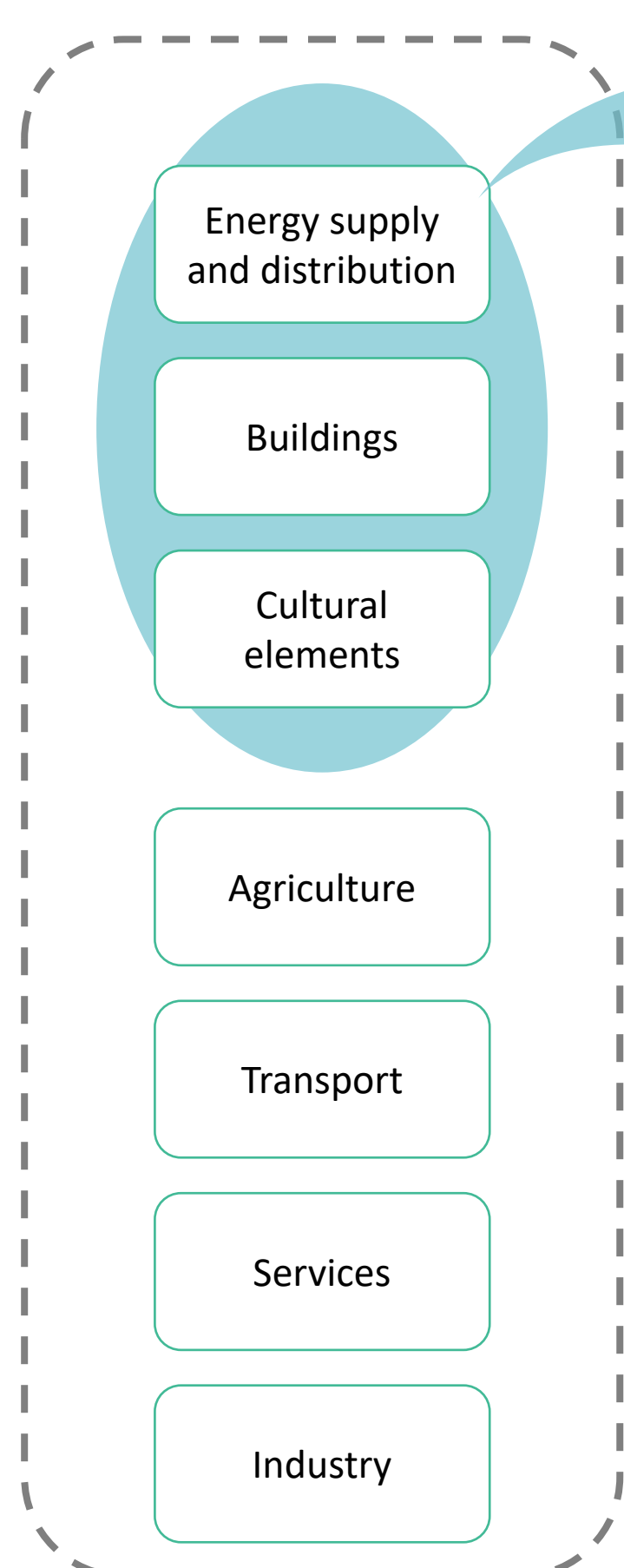
- Which sub-systems to consider as components of the cantonal energy regime?
- Which are the most relevant innovation processes (niches) that will influence the cantonal energy system in the mid-to-long term (2035, 2050)?
- Which are the most relevant external factors (landscape) that will influence the identified sub-systems and innovation processes in the mid-to-long term (2035, 2050)?



### STET model of Ticino\*

### Residential heating transition module

### Adoption factors



\*regimes have interconnecting modules in accordance with the influence they exert on each other