

# Strategic collective system building as accelerator of sustainability transitions

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What can **entrepreneurs** and entrepreneurial managers do to successfully launch **technological sustainability innovations** on the market?



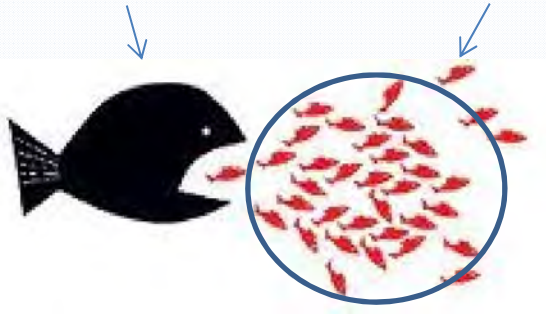
**Collective system building**

# Specifics of launching sustainability technologies



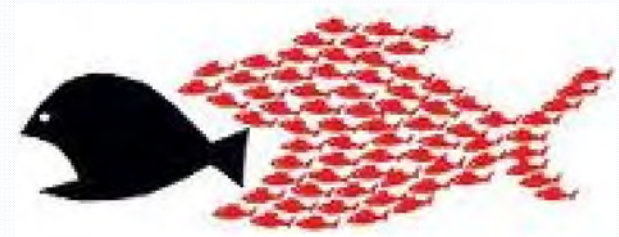
Incumbent system

Entrepreneurs who developed sustainability innovation

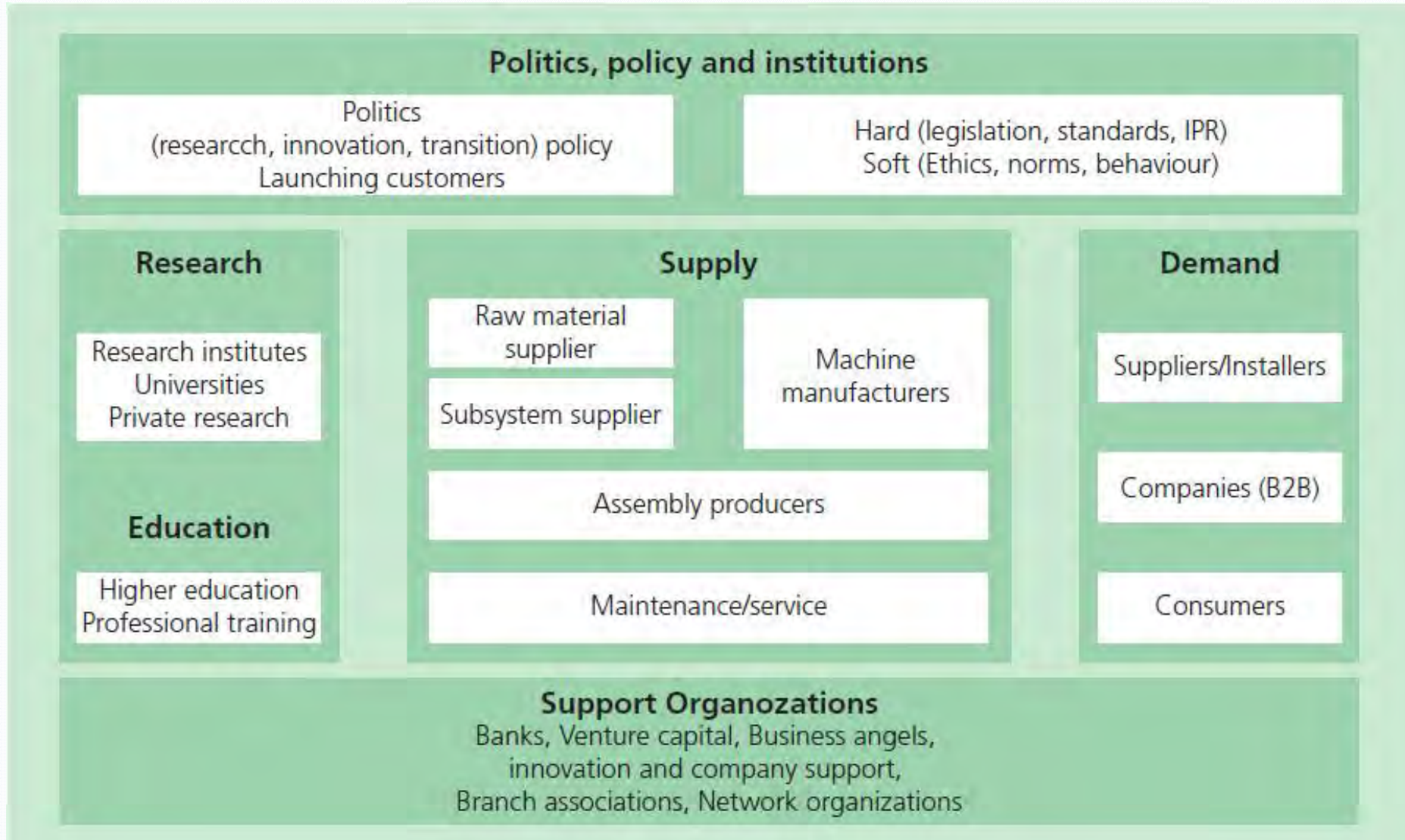


**collaboration** →

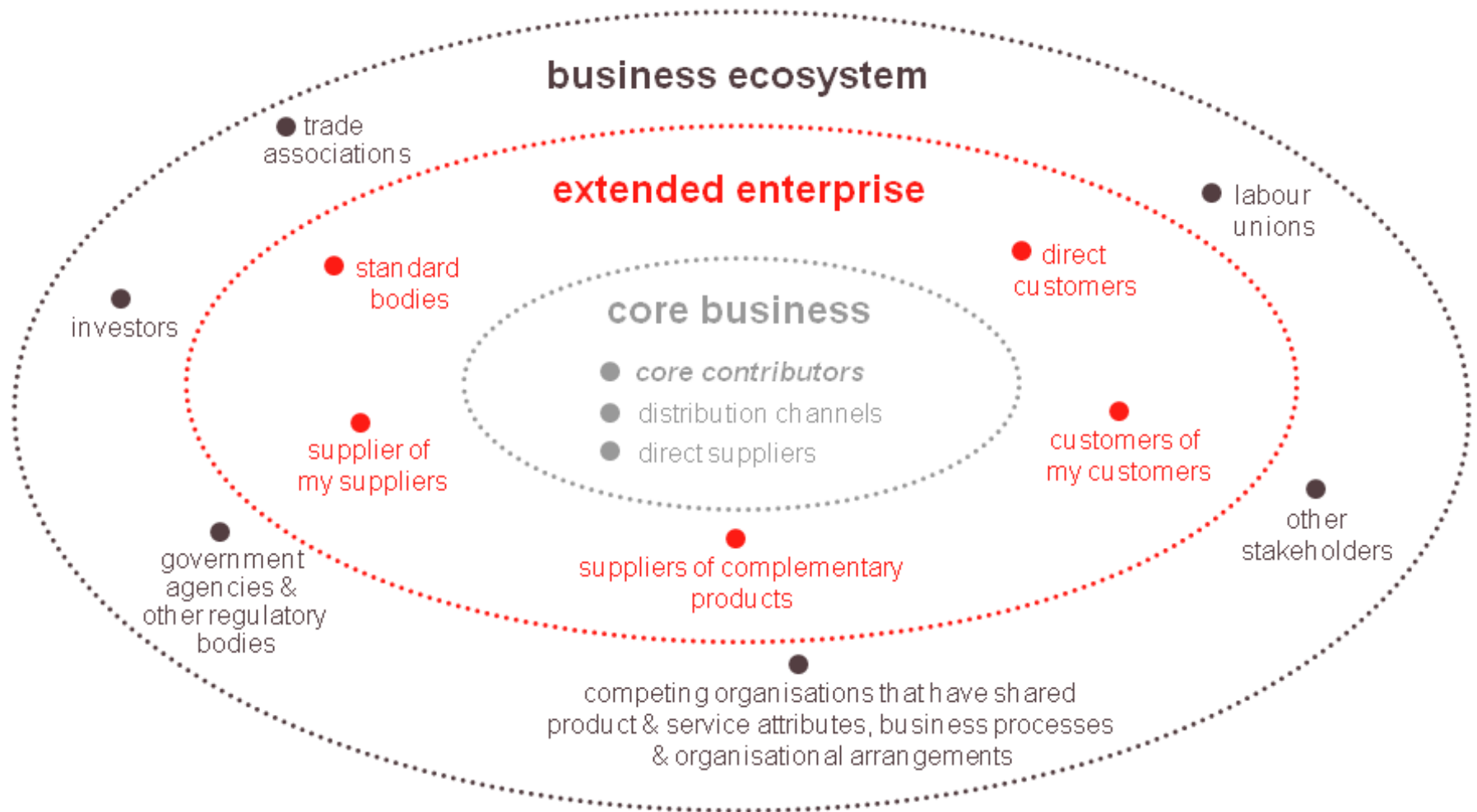
regime change



# Innovation system actors



# business ecosystem actors



based on: James F. Moore, *death of competition*, John Wiley & Sons, USA, 1996

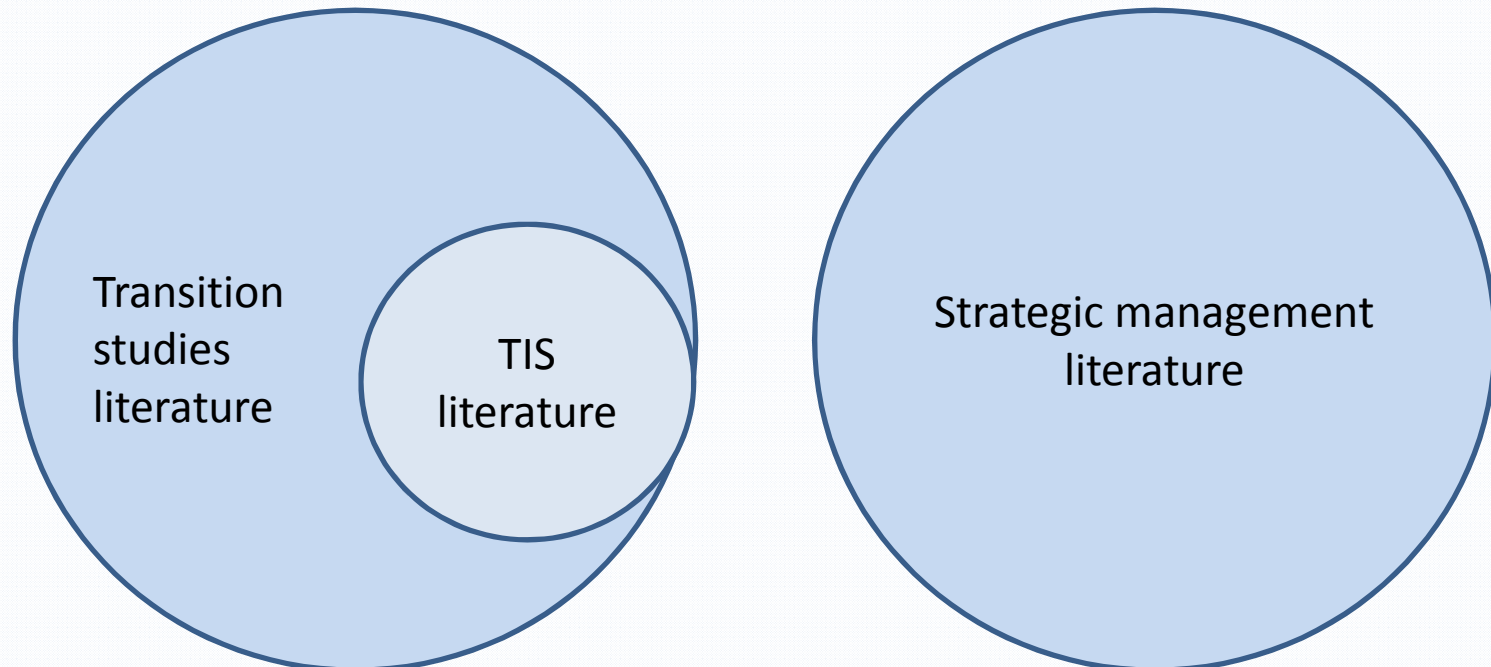
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Source: <http://partneringresources.com/wp-content/uploads/Biz-Ecosystem-Model1.png>

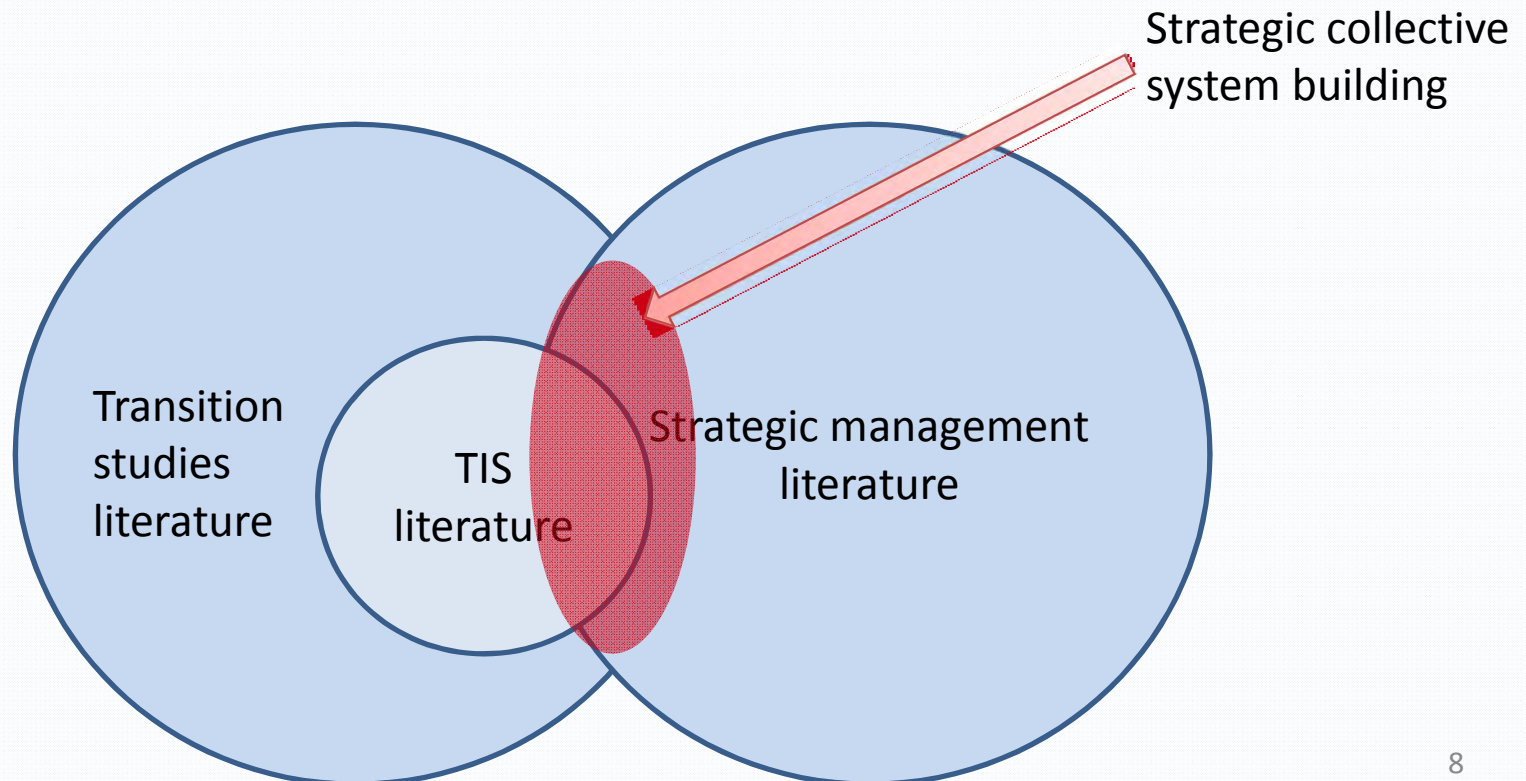
# Research objective

... to provide a strategy framework  
for entrepreneurs and entrepreneurial managers  
to collectively build up a favorable environment  
for their sustainability technology



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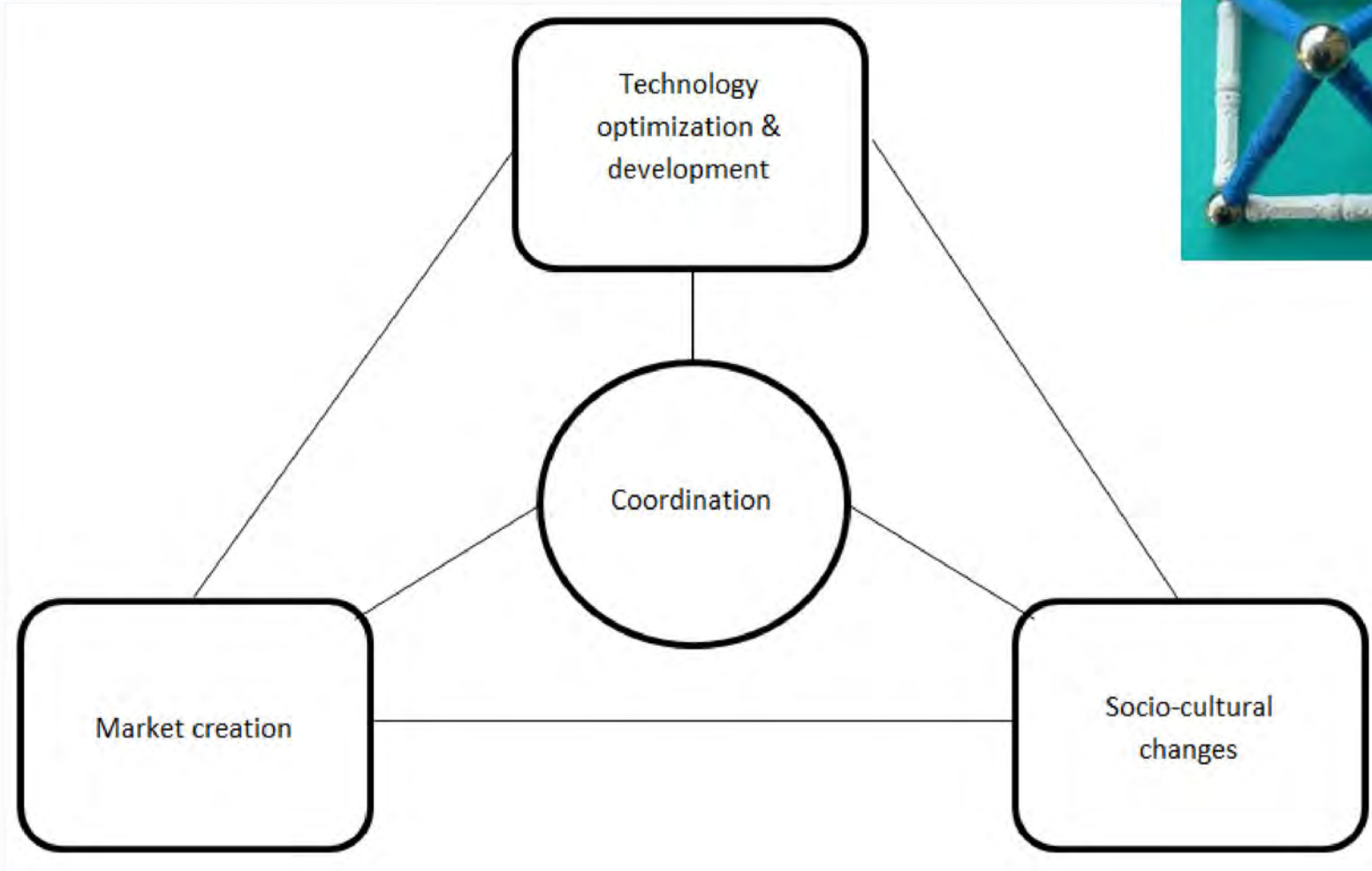
# Reserach questions

1. Which system building activities can entrepreneurs and entrepreneurial managers engage in to build up a favorable environment for their technological innovation?
2. How can these activities be compiled into a practical framework which can be used for strategic collective system building?

## **Method:**

- Single embedded case study
- Dutch smart grids sector
- In-depths interviews with 14 key actors
- Grounded theory's constant comparative analysis

# Strategy framework for collective system building



# Technology optimization and development

- Testing new technologies, applications and markets
- Knowledge development
- Knowledge exchange
- Development of commercially viable products
- Co-creation of products and services
- Feedback loops with user-groups



# Market creation



- Generation of new business models
- Creation of temporarily protected niche market
- Collaboration with government for enabling legislation
- Collaborative marketing to raise user awareness
- Collaborative competition against other technology clusters



# Socio-cultural changes



- Creating new facilitating organizations
- Establishing collaboration-prone organizational cultures
- Changing user behavior
- Changing the education system
- Generation of a skilled pool of labor



# Coordination of system-building



- System orchestration (managing and aligning individual system building efforts)
- Creating a shared vision
- Defining a common goal
- Standardization of the new technology
- Providing a platform for open innovation
- Thinking in system building roles instead of company objectives
- Creating transparency of all activities going on in the field (workshops, conferences, pilots)
- Creating positive expectations about the new technology



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