

Urban Energy Solutions in the Oslo Region

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Senior researchers

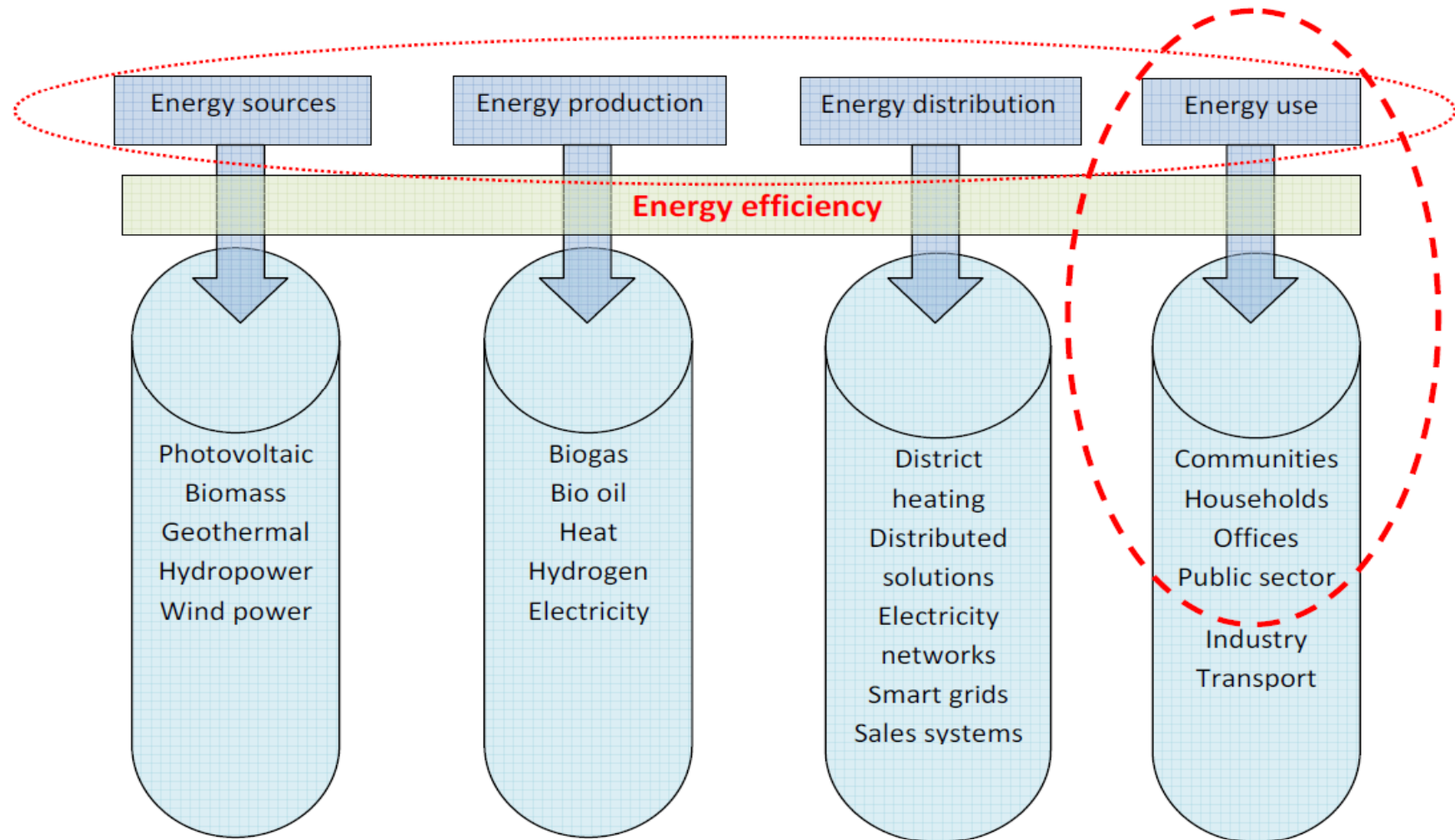
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Structure

- 1 Urban energy solutions
- 2 Research questions
- 3 A multi-level program
- 4 Innovation systems for energy efficiency
- 5 Innovative building and community projects

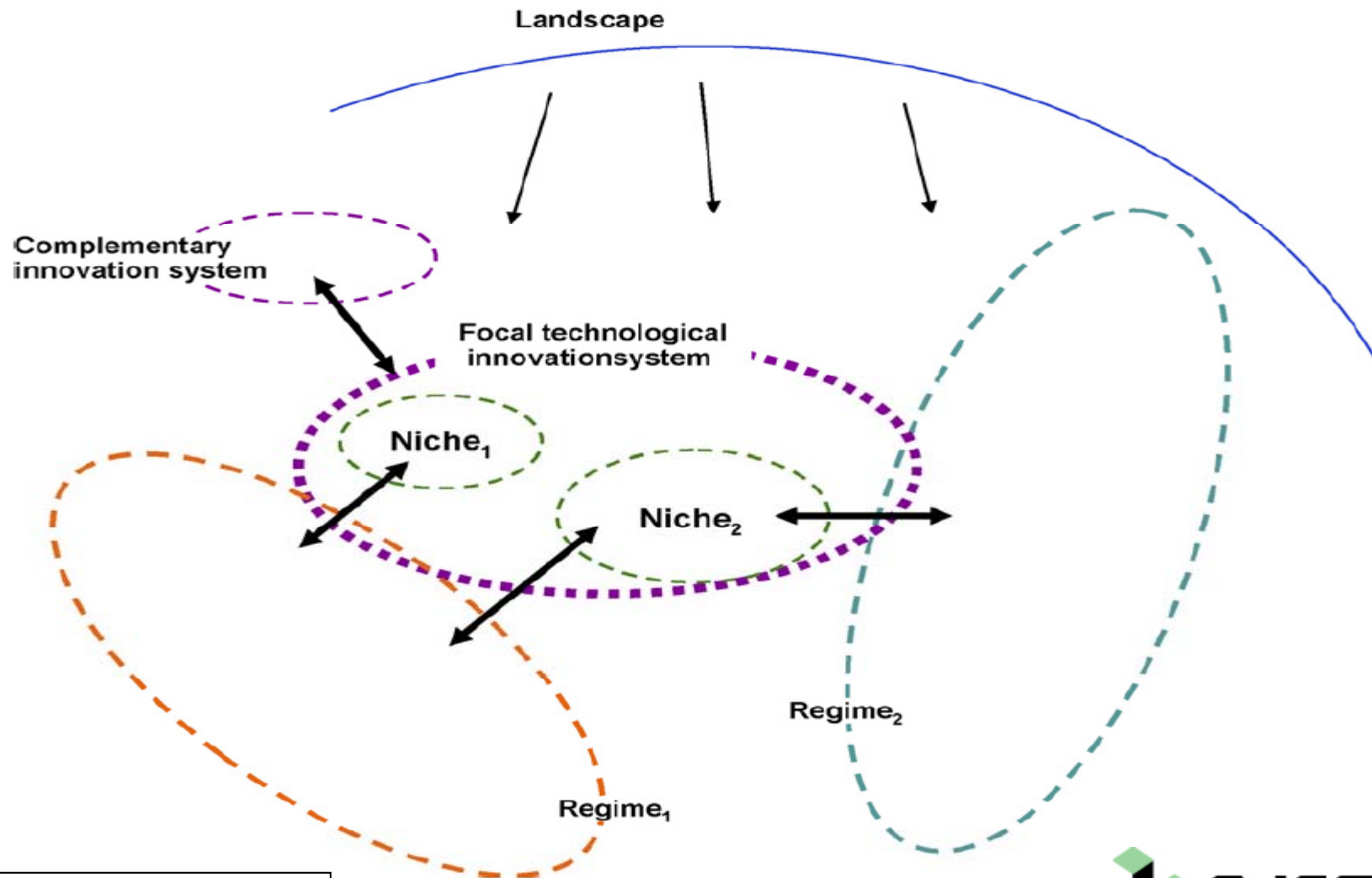
Urban energy solutions



Research issues and questions

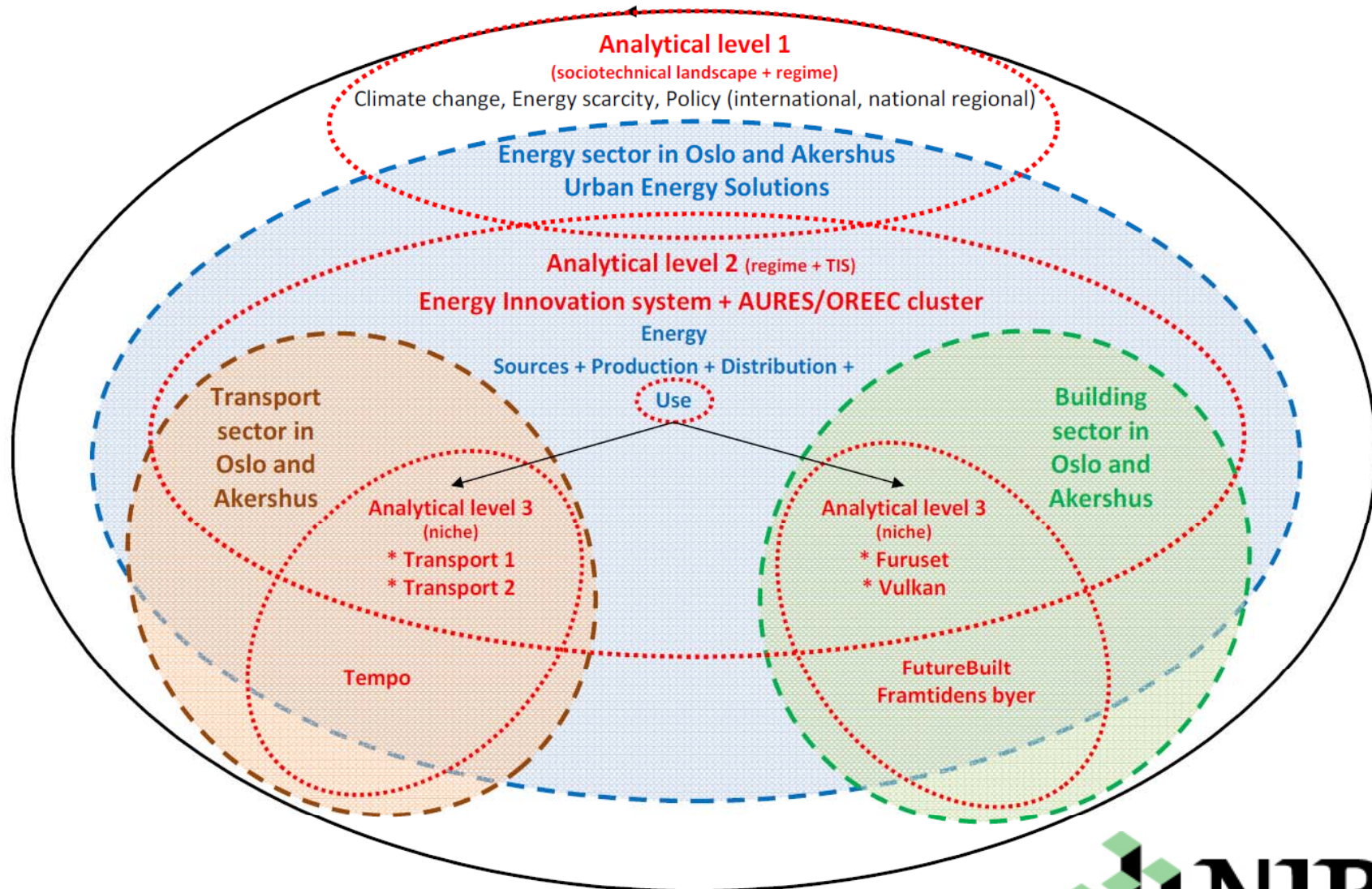
- Related to innovation in efficient energy use in the built environment:
 - 1 What are the motivations, drivers and barriers for innovation at different levels (firm, industry, society)?
 - 2 How are innovation processes, learning and knowledge sharing organized and governed?
 - 3 What are the features and functions of the emerging technological innovation systems in this field?

A multi-level and systemic program 1



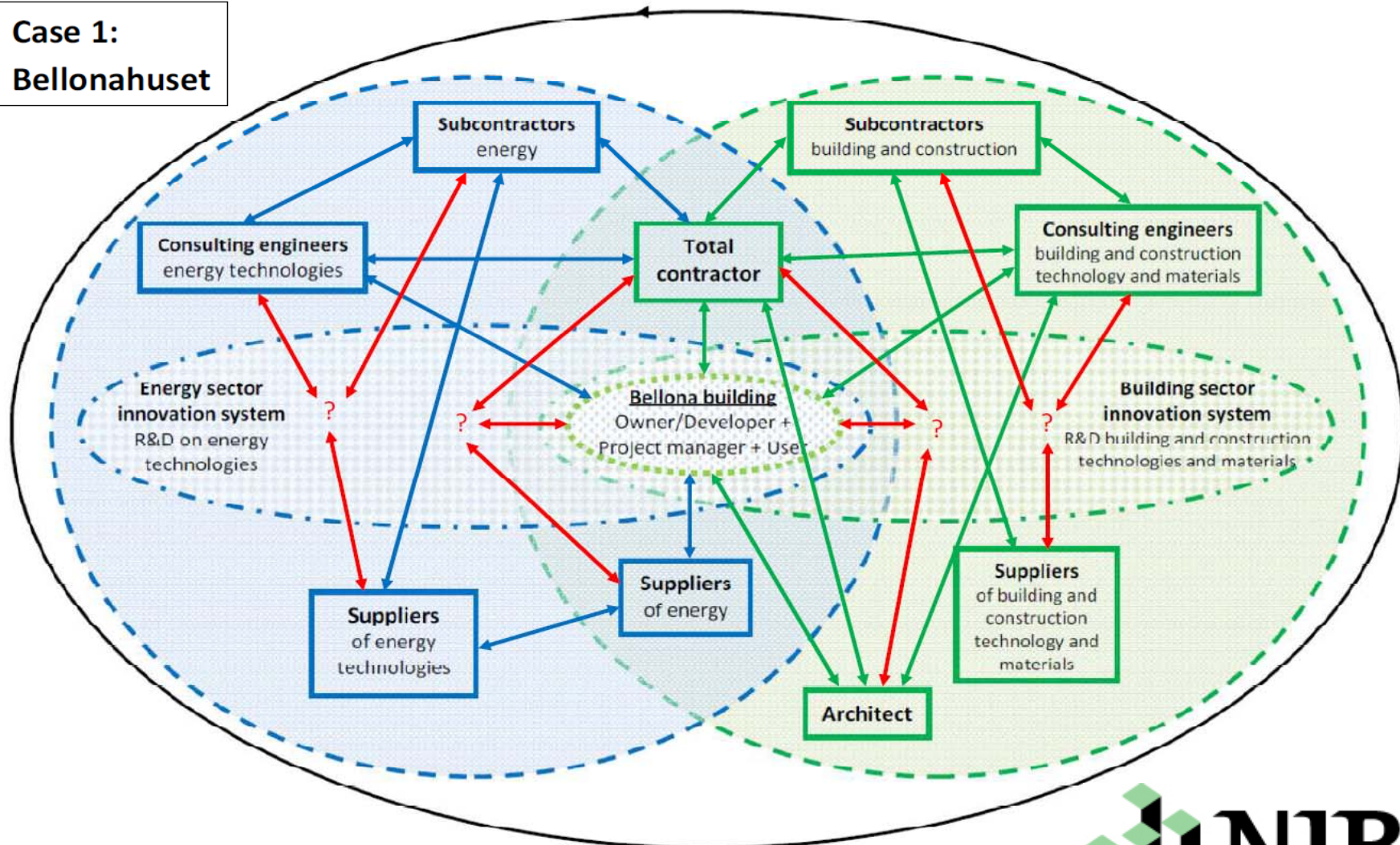
From Markard and Truffer (2008)

A multi-level and systemic program 2



Technological innovation systems for energy efficiency in buildings and communities

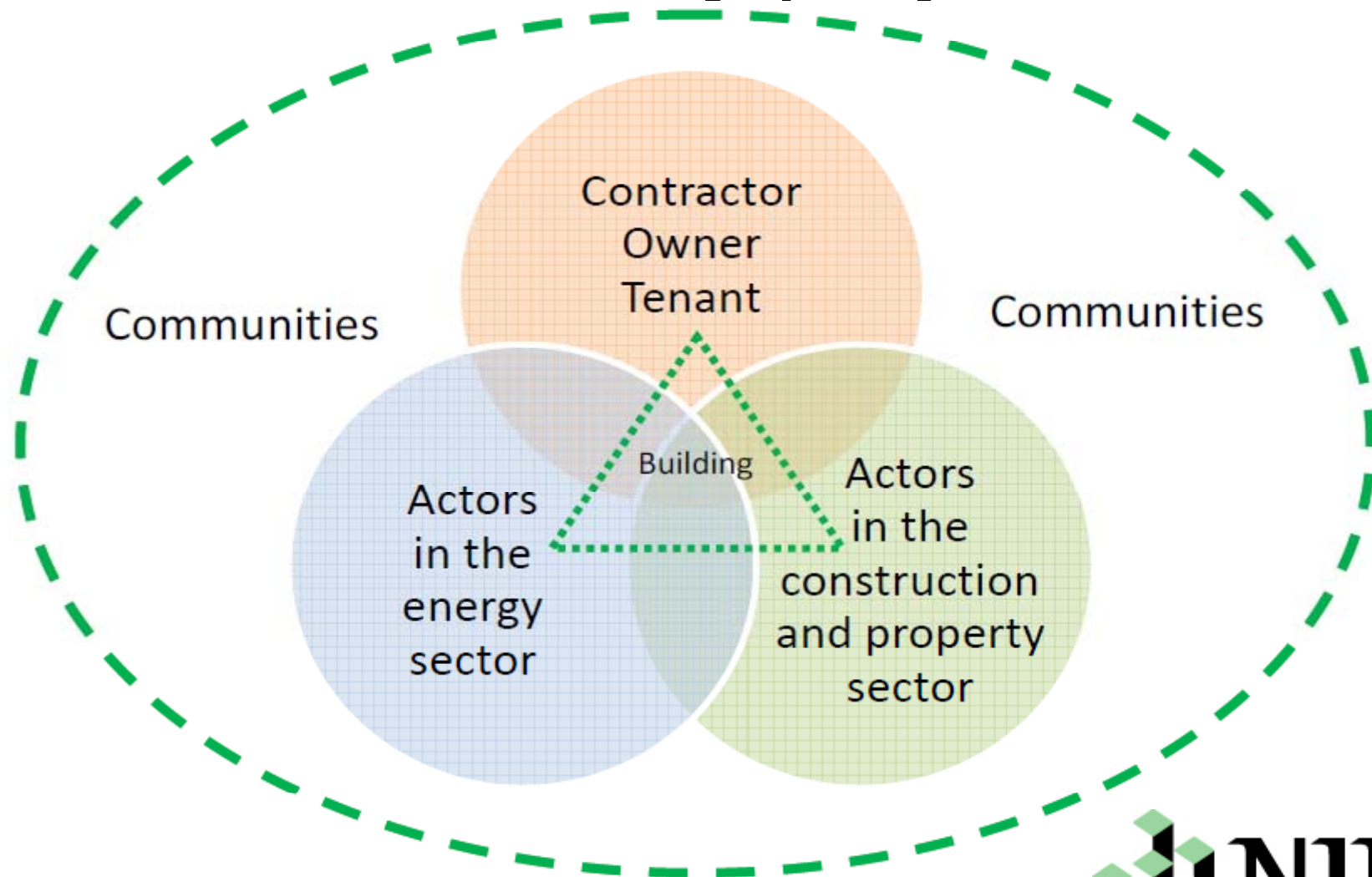
Case 1:
Bellonahuset



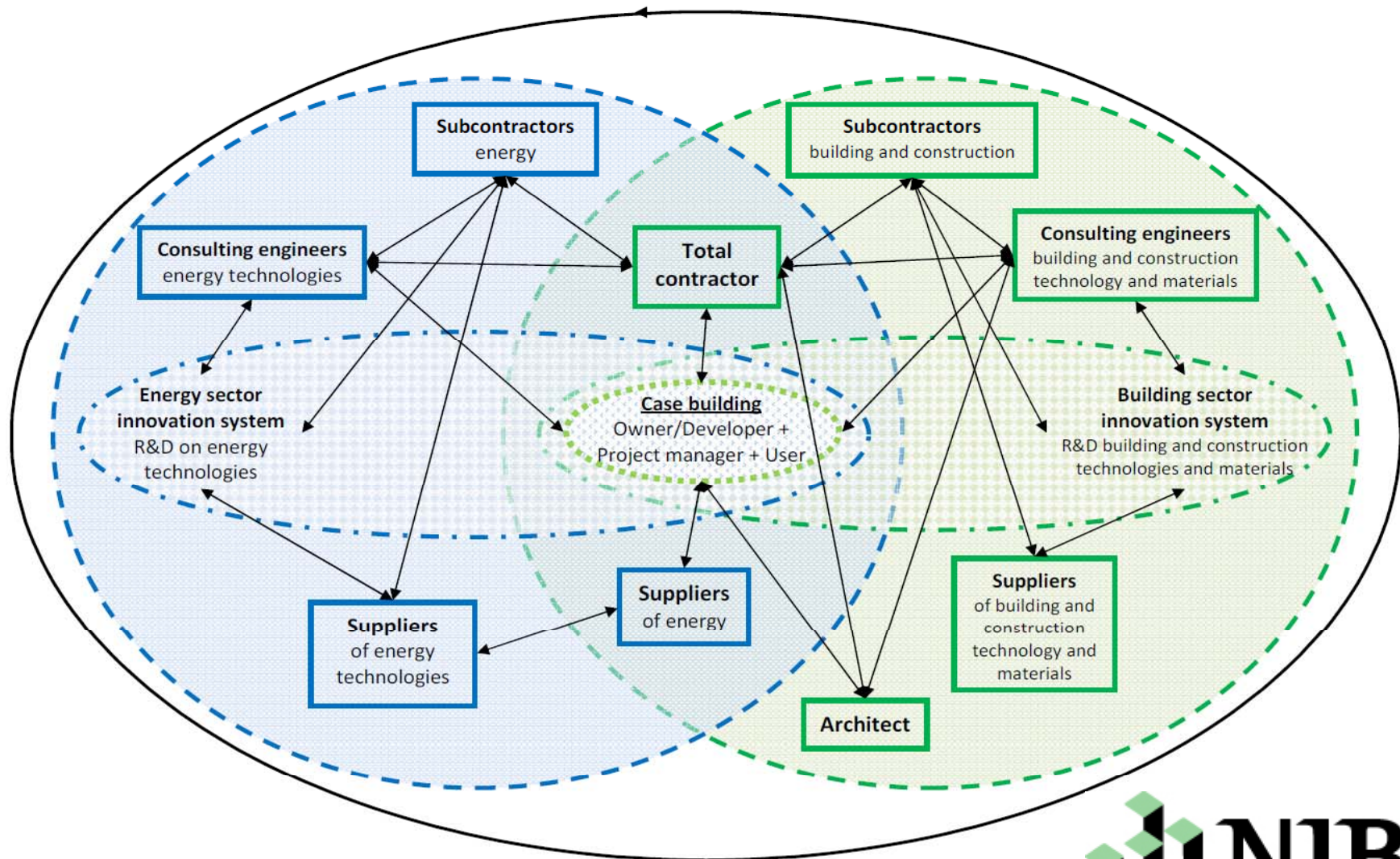
Functions of technological innovation systems

- F1 - Entrepreneurial experimentation
- F2 - Knowledge creation and diffusion
- F3 - Guidance of search
- F4 - Market creation
- F5 - Resource mobilization
- F6 - Legitimation
- F7 - Development of positive externalities

Innovative building and community projects



Technological innovation systems for energy efficiency in buildings and communities



Main points and contribution

- Efforts by a cluster to achieve sustainability transition in the urban energy system in the Oslo region
- The cluster needs to develop knowledge, solutions and market through building TIS
- Investigate emergence/building of TIS and its functions around innovative construction projects in built environments
- Contribute to TIS building and TIS study