T1B: STEP-UP special session

Managing uncertainty in the design and operation of urban energy systems

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The STEP-UP project

Partners and PIs

Imperial College London

Prof. Richard Green

Prof. Chongqing Kang

Prof. Yi Ding

Prof. Laurens de Vries

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Funding

STEP-UP challenges

Socio-Techno-Economic Pathways for Sustainable Urban Energy Development

1. Market and institutional changes
2. Intelligent operation of energy infrastructure
3. Optimal design of energy infrastructure
4. Policy, business case and roadmap

In the PMAPS context: how do we deal with uncertainties?

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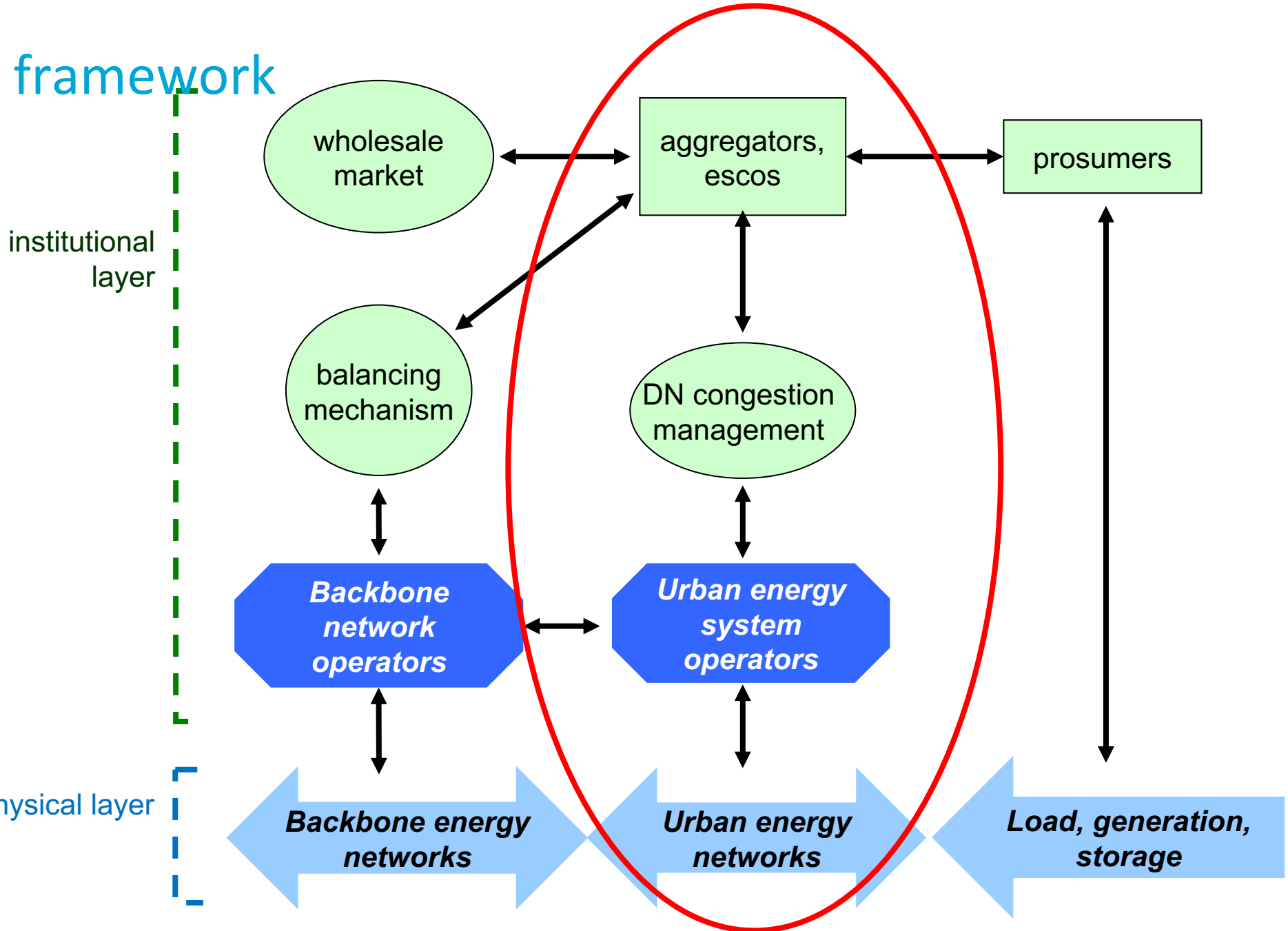
Conceptual framework



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Schedule

Time (BST)	Title	Presenter
9:00	Introduction	Simon Tindemans (TU Delft)
9:05	Resilience Oriented Planning of Urban Multi-Energy Systems With Generalized Energy Storage Sources	Ning Zhang (Tsinghua University)
9:20	Dynamics-aware Optimal Microgrid Scheduling under Uncertainty	Fei Teng (Imperial College London)
9:35	The Impact of Electricity Price Forecasting Uncertainty on Network Tariff Performance with Flexible Residential Loads	Roman Hennig (TU Delft)
10:05	Stochastic Scheduling of Prosumers with Demand Flexibility	Yi Ding, Yishuang Hu (Zhejiang University)
10:25	General Q&A	

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