

Building energy Responsive Integration of supply and Demand engaGEment (BRIDGE)

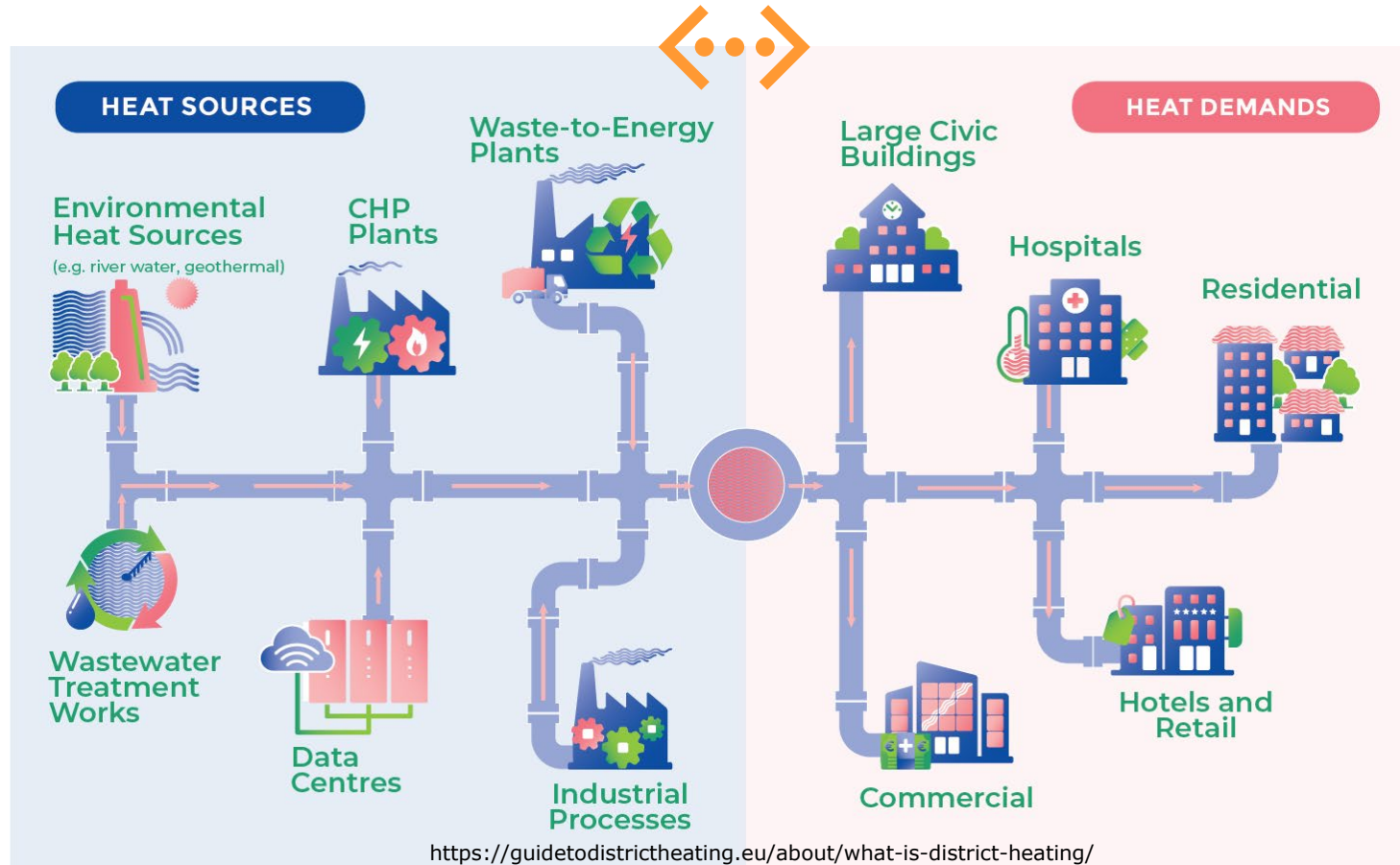
Energy Information Interaction Club

Presenter: Tingting Zhu (UT)

Team member: Dajuan Yang (TU/e) | Aleksandra Lekic(TU Delft)



Building Energy Transition: Integrating Supply, Demand



Research Focus – Responsive Integrating of Building Energy Supply and Demand

- Supply and demand
- Key aspects
sources, storage, distribution, consumption, demand response, efficiency, grid.
- Multidisciplinary approach
energy engineers, environmental, data analyse, and technology experts and researchers

Joint Research Team & Funding Application

Dr. Tingting Zhu – Focus on supply side
(multiple energy sources in district heating/cooling networks)

Dr. Dajuan Yang – Digitalization of the built environment
(building modeling, dynamic consumption patterns)

Dr. Aleksandra Lekic – Smart and flexible energy system control



UT

Heat transfer and
thermodynamics
Advanced heating and
cooling



AC-X

Built Environment
Building sustainable urban
energy



TU Delft

Electrical sustainable energy
Intelligent electrical power
grids

Need for a Comprehensive Research Team

- Energy conversion
- Energy storage
- Data-driven based control
- Environmental impact
- Economic analysis



Goal: A complete research storyline for **building energy system integration research**



Future Collaboration & Impact

- Strengthening connections : **4TU researchers** and industrial partners
- Future **joint projects & funding applications**
- Advancing sustainable and efficient building energy solutions



ENERGY TRANSITION IN BUILDING | HACKATHON & WORKSHOP

Date: September 3rd-4th, 2025

EVENT COUNTDOWN

1	5	4	1	0	0	2	0	4
days	hours	minute	seconds					

Stay tuned!

Welcome to join us in contributing to the **Energy Transition in Building-BRIDGE** community!

Acknowledgements



Thank you for your attention!