

LT heating and the readiness of the end-users

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Consortium Inside Out



The Journey of Inside Out



2017



2018



2019

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2020

&

2021

Proof of principle:
Testing concept in
controlled environment

Proof of concept:
Building one dwelling and
monitoring the dwelling for
a whole year

Prototype testflat:
Renengineering and
building the first energy
surplus highrise apartment
building. And monitoring for
two years



Proof of principle – Proof of concept

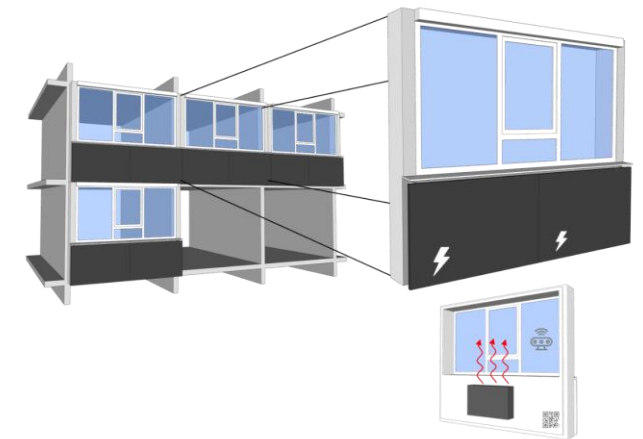
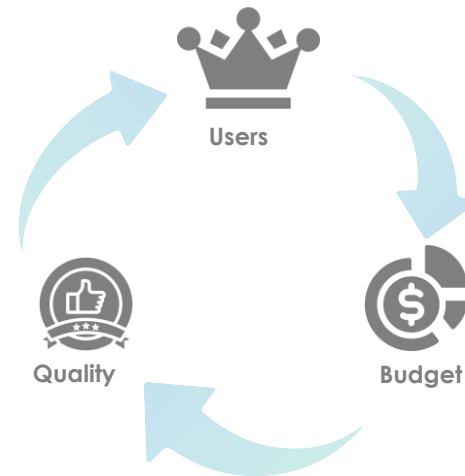


<https://www.youtube.com/watch?v=YvYphMAYkMg> – TKI Inside Out Utrecht on youtube

<https://www.youtube.com/watch?v=i5SjVJ-Tz9E>

Project Henriëtterdreef, Utrecht

- Renovated high-rise apartment building
- After renovation an energy surplus of roughly 20.000kWh
- From district heating → collective LT-heating
- Renovation with inhabited dwellings
- Prefab facade modules with integrated ventilation, LT-heating, solar panels.
- Prefab LT-heating climate container for heat and warm water production



Adaptiveness to LT-heating of end-users

- Differences in experiences with LT heating between dwellings with same external factors.
- The level of adaptiveness of the end-users is crucial for the happiness of the new LT-heating system.
- Differences between new residents and the residents that already lived in a dwelling.
- Big differences between age groups and their experiences of the LT-heating system.
- How can we enhance the willingness to adapt to a LT-heating system?
- Be honest with residents and coach them in the first periods after the renovation



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Questions & dialogue

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