

The Role of Objects in Decision-Making Processes: The Case of an Energy Renovation



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Brief introduction to the paper

The study is extracted from an in-depth case study of an ambitious energy renovation project (beyond legal requirements)

Multi-level apartment buildings rented out as social housing

Fieldwork was conducted during design phases (Jan '15 – July '16)

- Ventilation discussion: Aug – Nov '15

Theoretical focus on sociomaterial configurations (inspired by actor-network theory and science & technology studies)



Interviews

Project manager (HA)	Nov 2015
HVAC engineer	Oct 2016
Three members from the board of tenants	Nov '16 + Jan '17

Meetings

Renovation committee	Aug 2015
Engineering company	Aug, Sep, Nov '15

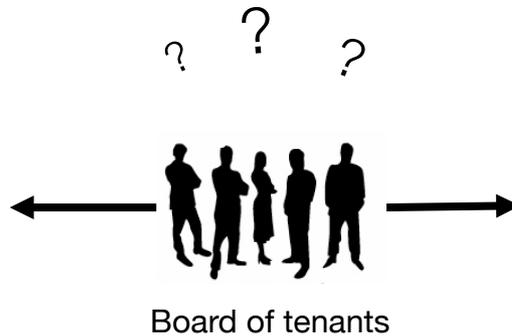
Documents

Note about ventilation	Oct 2015
Minutes from renovation committee meetings	Aug, Sep, Oct, Nov 2015

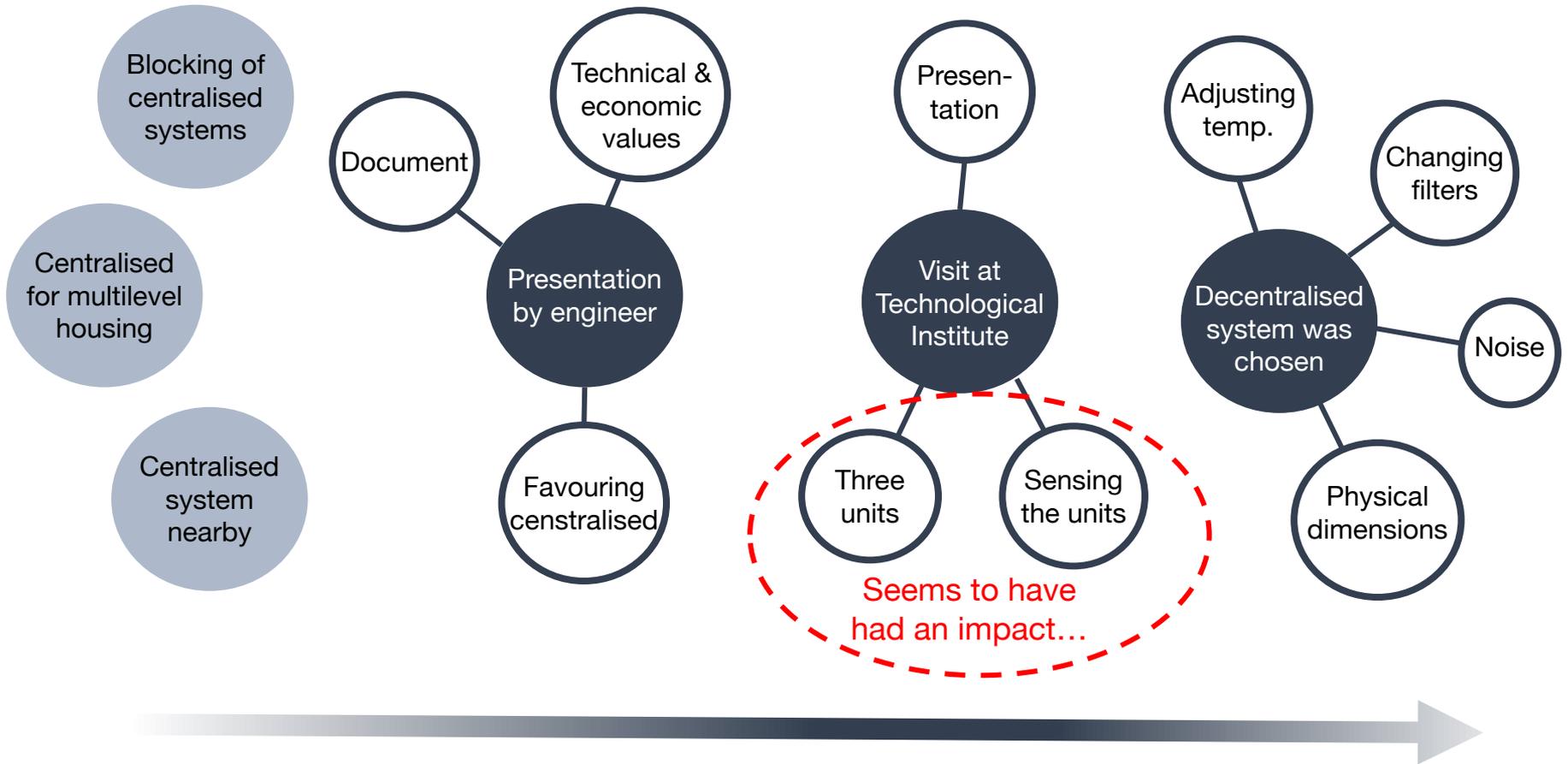
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Interest in *design-in-becoming*, or decision-making leading up to a “final”, “low-energy” design

Study of one particular decision regarding a technology which reduces energy consumption: Mechanical ventilation with heat recovery



Simplified picture of what happened...



Contribution

Accounting for “energy-reducing initiatives” as sociomaterial relations and how these initiatives are produced and maintained is important in order to understand how “energy” unfolds during design processes

Decision making is not only a matter of economy or technical features, but also earlier experiences, sensing of objects, and collective (e)valuations

Challenge

Documenting sociomaterial configurations is difficult: records of both speech, bodily movements (e.g. pointing and gesturing towards objects), objects (drawings, documents, budgets, etc.), references (e.g. to other projects or experts), etc.

Timing of registration of actions is difficult, because the importance sometimes comes after a reconstruction of the decisions

Note on complexity

Design decisions are never one-off phenomena, but are related to many other decisions

Design decisions tend to unfold and multiply into new or already noticed problems and concerns

The simplification presented here is just a snapshot of design processes and do not give the “full picture”

...and performativity

“Ambitious low-energy renovation projects” do not “just work”, but are *put to work*

Without the discussions about how to reduce energy consumption, practitioners will probably fall back into business-as-usual

Discussion

Within which criteria should energy-reducing initiatives be taken?

- In this case, it was a mixture of technical capacity, economy, physical dimensions, aesthetics, noise, etc.

How can we ensure better state-of-the-art and beyond-regulation reduction of energy consumption?

- In this case, one initiative is presented, but it is an example of business-as-usual, not a radical initiative

How can we as researchers document and register decision processes rigorously?

How to study phenomena which are multi-sited, situational, mundane practices?