

Sufficiency as a dwelling practice

the role of the architect vs the role of the occupant

abstract 172

Griet Verbeeck, Ann Bosserez, Nick Van Loy, Elke Knapen

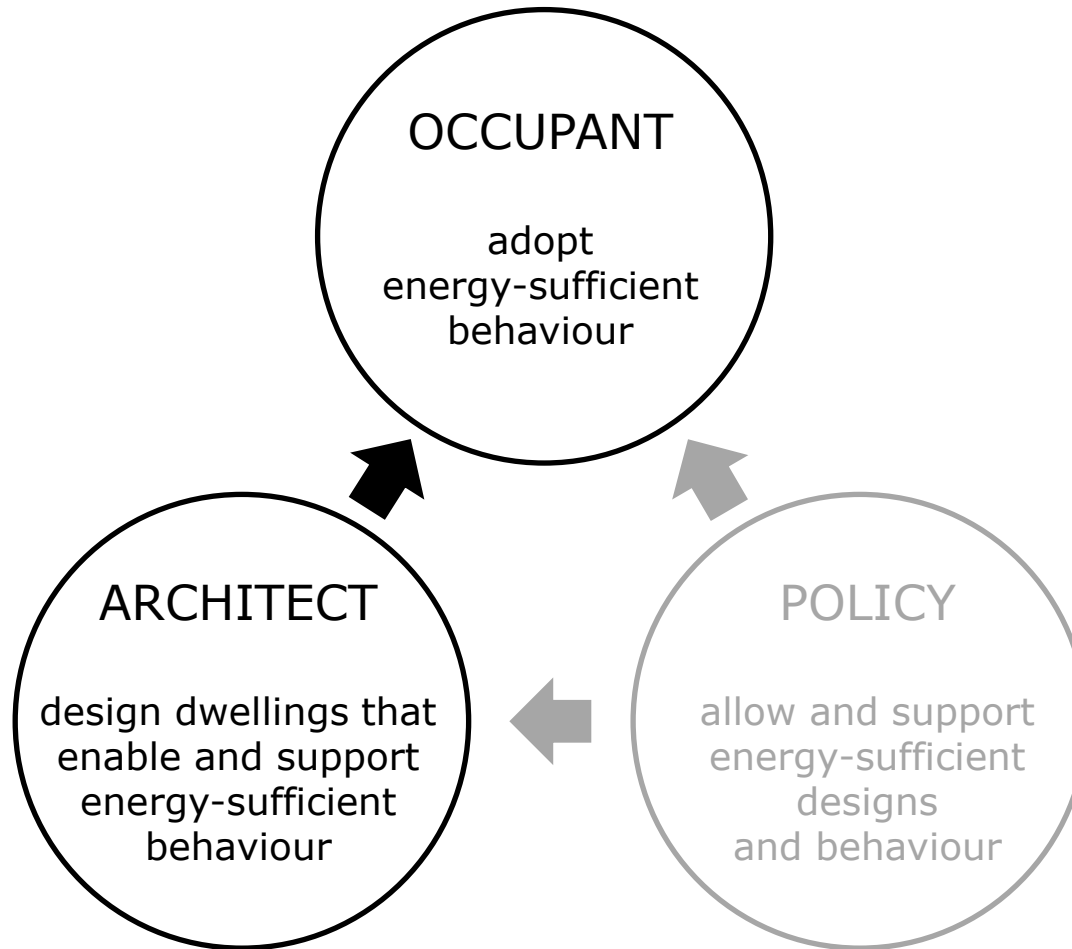
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UHASSELT

KNOWLEDGE IN ACTION

**FACULTEIT
ARCHITECTUUR EN KUNST**

Sufficiency is a practice that needs to be enabled



Designing for energy efficiency vs sufficiency

Different concepts

energy efficiency



energy sufficiency



product



process & practice

energy efficient house



energy sufficient dwelling (=act)

Different design approach

object-centered



resident-oriented

apply list of EE measures

place-making (= identifying existing places and creating new ones)

making *places and people comfortable* instead of rooms and buildings



Spatial design method for place-making and energy sufficiency

Places exist through the eye/experience of the resident.

Dwelling \equiv **collection of places and non-places**

Create dynamic spaces

that allow a dynamic use in space and time

1. Analysis

Identifying places and identifying opportunities for energy sufficiency

2. Synthesis

1. Conceptual design - **grouping of places**
2. Preliminary design – **zoning places & linking spaces**
3. Detailed design – **creating dynamic spaces**

3. Qualitative evaluation ES (<> quantitative evaluation EE)



Heating for energy efficiency vs sufficiency

Different concepts

energy efficiency



energy sufficiency



heating *systems*



heating *practice*

comfortable rooms



comfortable residents

Different approach

object-centered



resident-oriented

heat pump, EE boilers

ambient room temp +

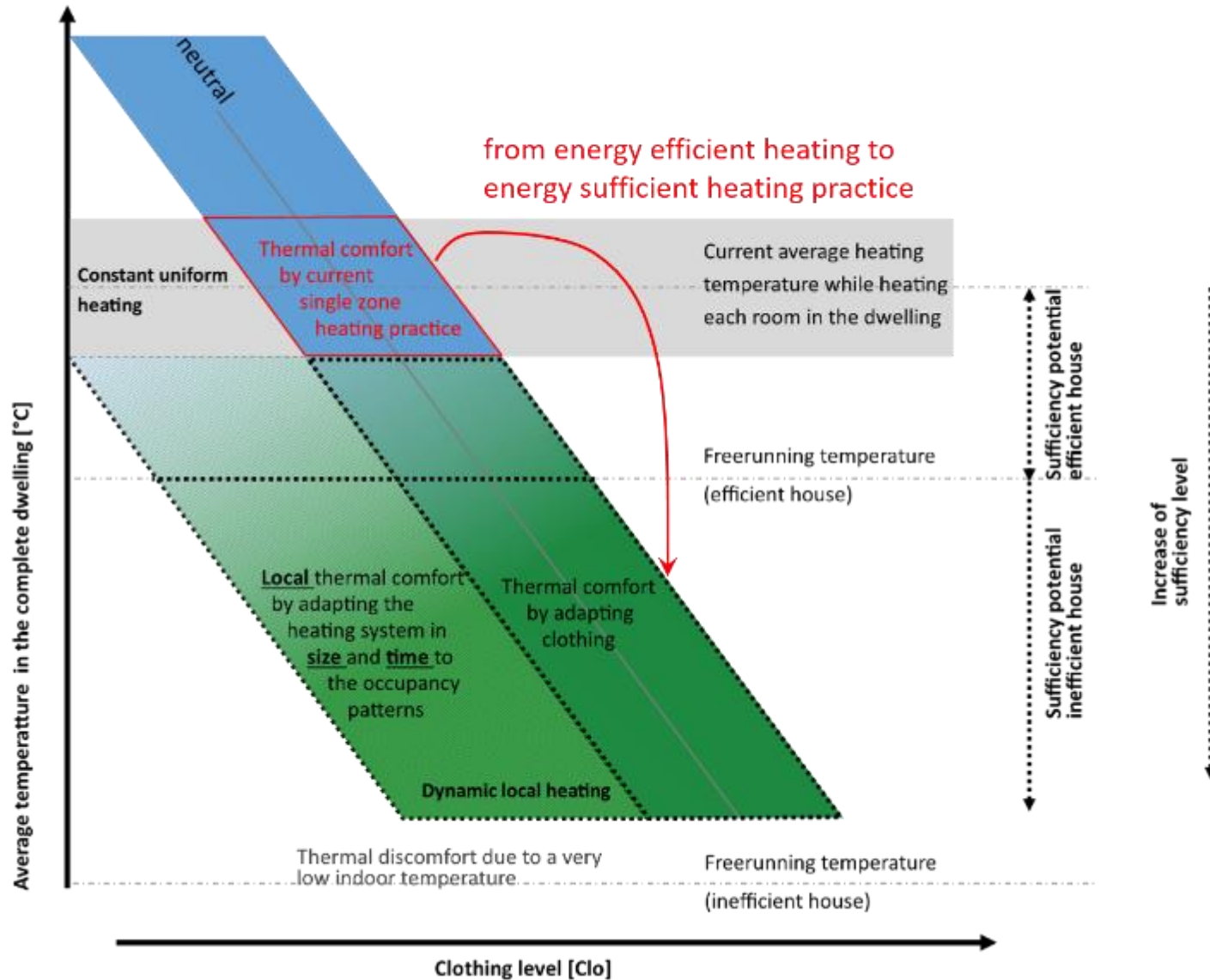
smart controls

clothing level + personal heating

making *places and people* comfortable instead of rooms and buildings



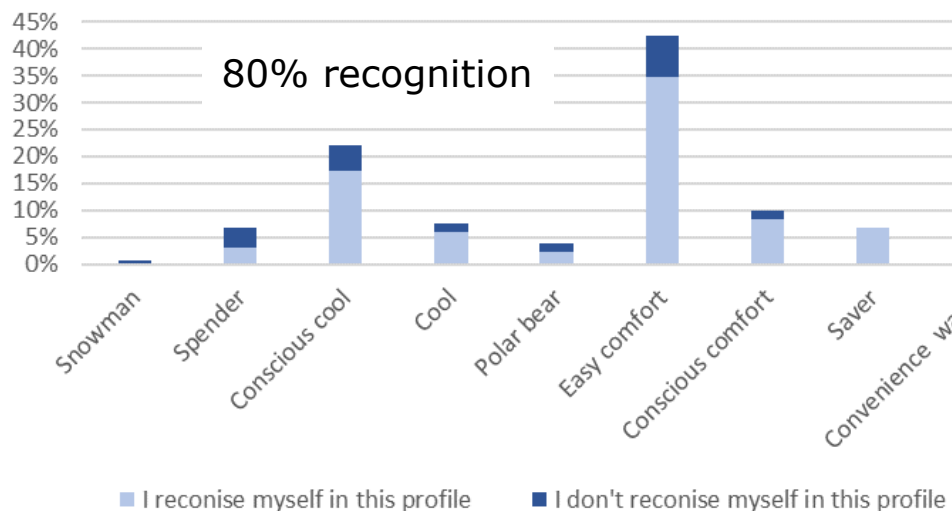
Sufficiency-based heating practice



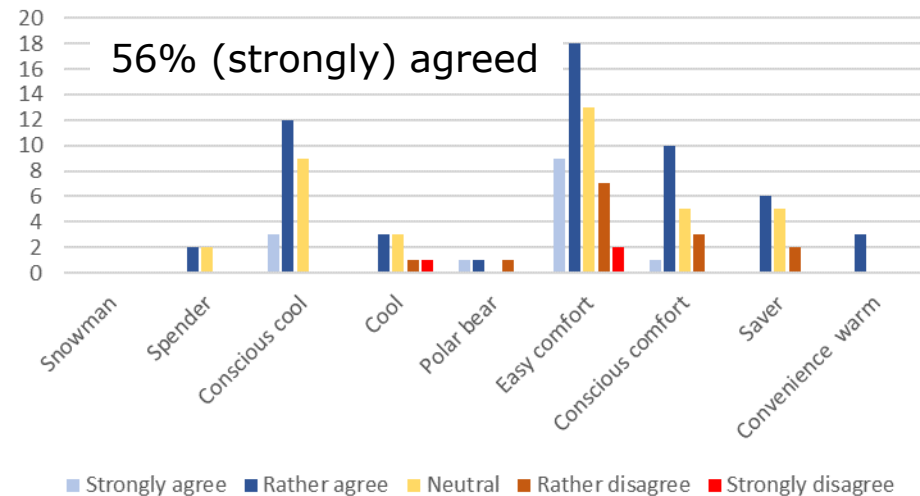
POC test to determine current heating practice and potential for sufficiency-based heating practice

- Test consists of a set of 3 questions:
 - Setpoint temperature indoors: rather high / average / rather low
 - Typical clothing level indoors: warm clothes / casual / light clothes
 - Thermal sensation indoors: rather warm / neutral / rather chilly
- Led to the proposal of a heating practice archetype + sufficiency-oriented heating practice advice
 - Do you recognize yourself in this archetype?
 - Do you see yourself adopt this heating advice?

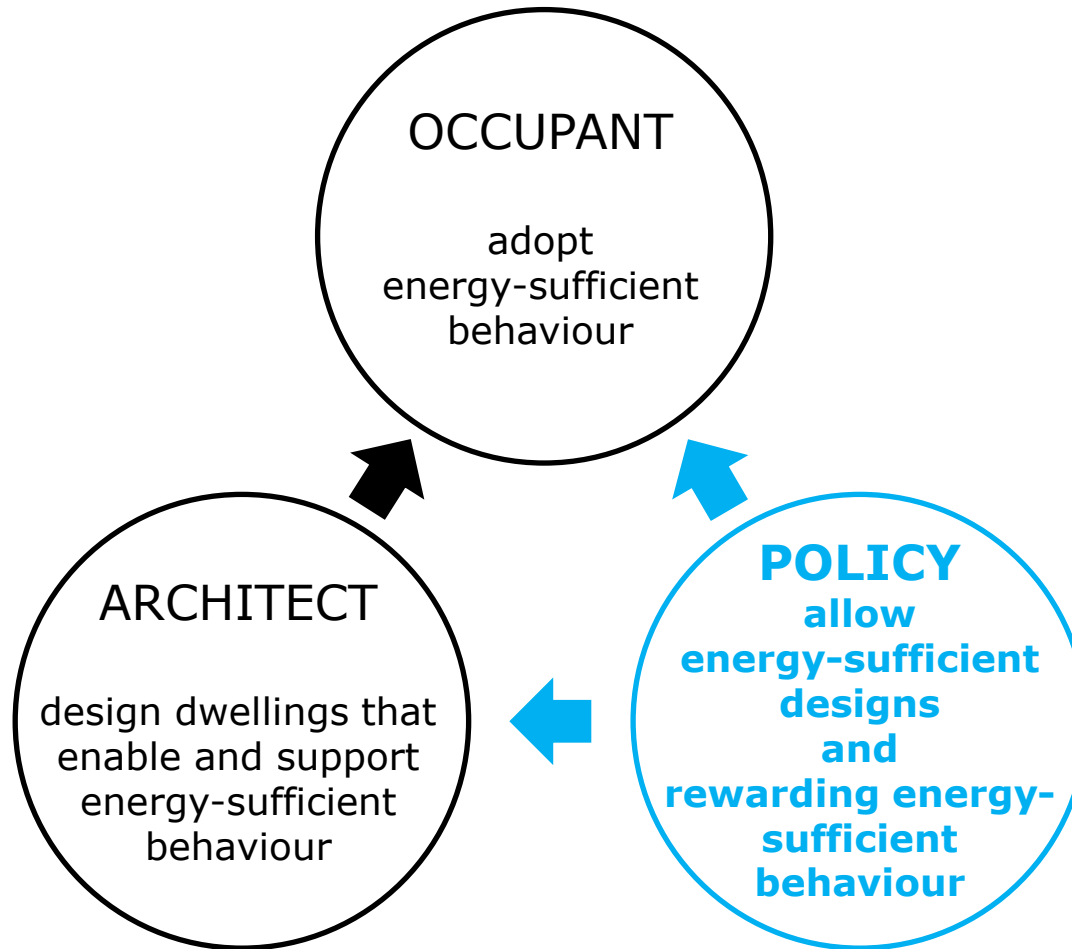
Archetypes and recognition of the profile all



Advice based on the profile



Sufficiency is a practice that needs to be enabled



Thank you for your attention

Any further questions?

Contact: griet.verbeeck@uhasselt.be

