

A group of students in white t-shirts and blue pants are planting young trees in a grassy area. They are using tools like shovels and gloves. The scene is outdoors with trees and a building in the background.

*“A citizen's approach for energy transition;  
A real-life case.”*

20-11-2025  
Raymond Sparreboom  
Avans University of Applied Sciences

Beeld: Tilburg University

This is me

# Raymond Sparreboom

Avans University of Applied Sciences /  
Academy for Technology & Innovation

Program Leader and Researcher lead @  
Urban Living Lab Breda

Background in Civil Engineering

Urban  
Living Lab  
Breda

**avans**  
hogeschool

**Breda**  
University  
OF APPLIED SCIENCES

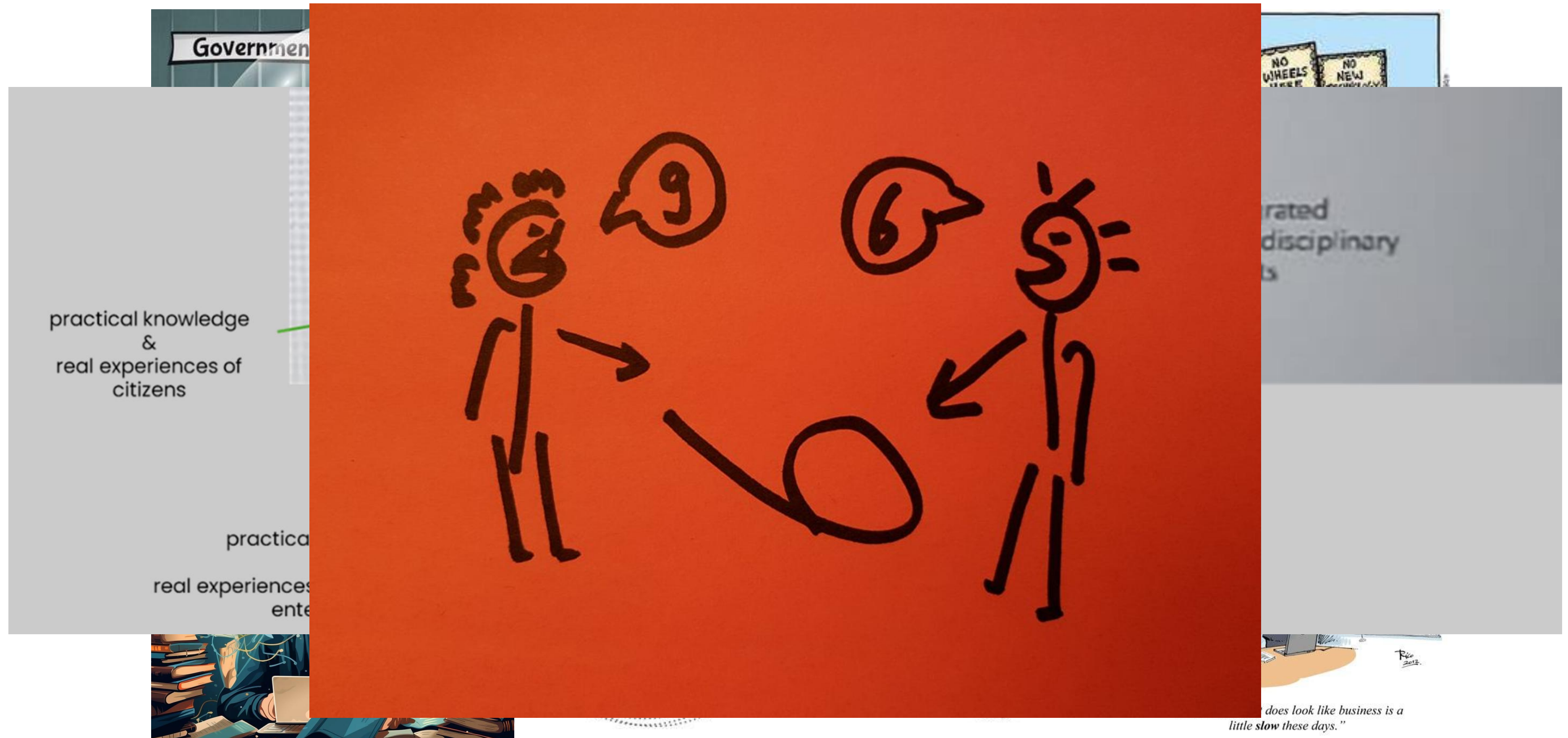
**curio**

**DE ROOI**  
PANNEN

**Gemeente Breda**



# Our ULLB approach




# Urban site: Zandberg; 'a citizens approach for energy transition'



# Energy transition; Multiple perspectives

A composite image showing wind turbines in the background and solar panels in the foreground, with a bright sunset or sunrise sky in between.

*“Big and beautiful technology is our salvation...no matter what expenses are!”*

A close-up of an elderly man wearing a blue and white striped beanie, a brown patterned scarf, and a red shirt. He is sitting next to a white radiator, looking down with a somber expression.

*“What can I do to live comfortably and be sure to continue paying my energy bill?”*

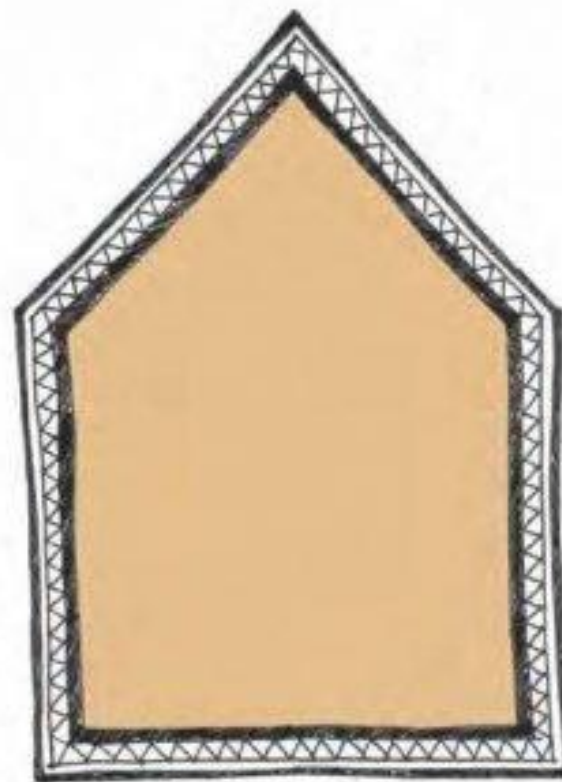
# Urban site: Zandberg; 'a citizens approach for energy transition'



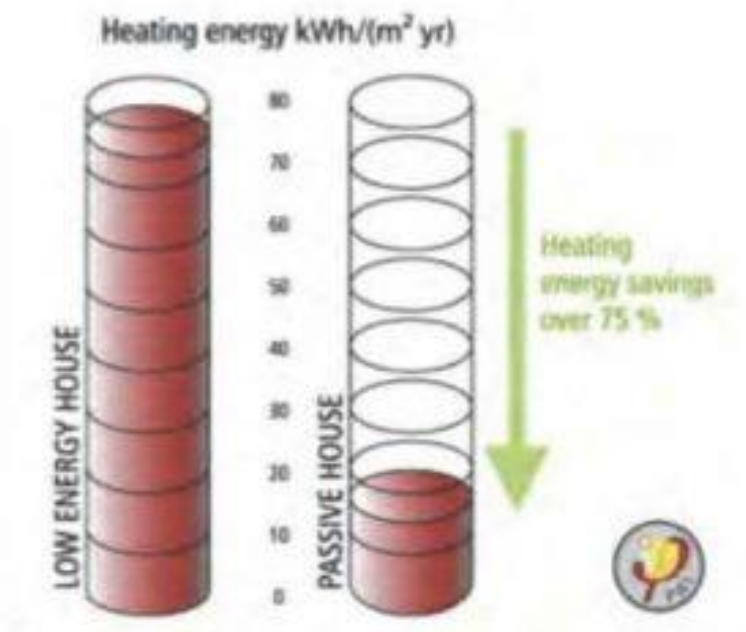
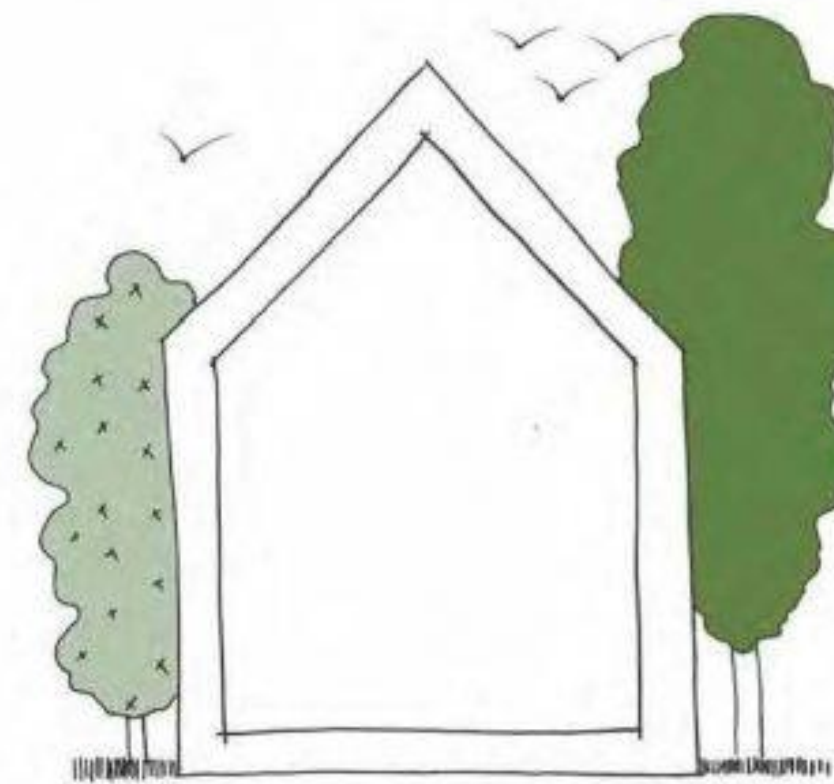
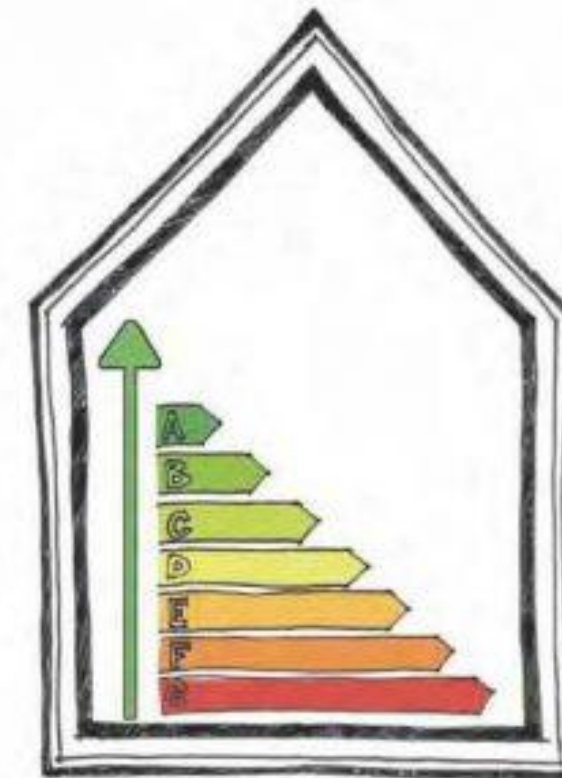
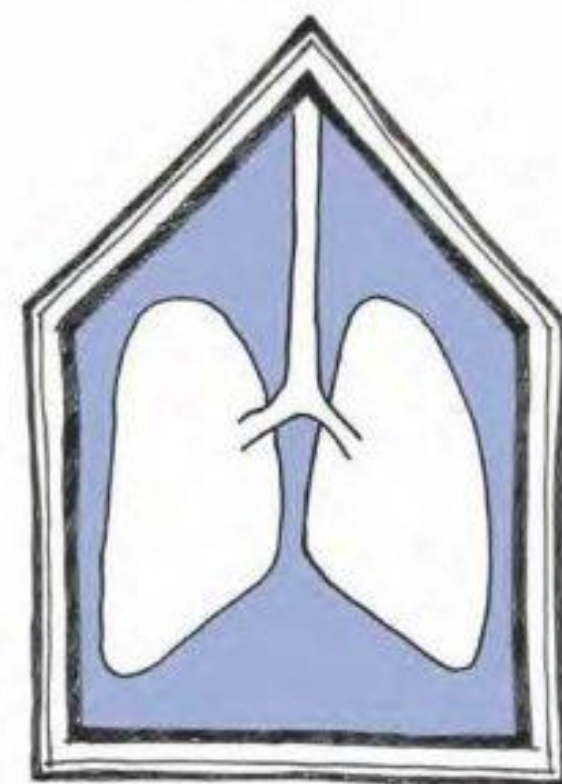
*“The tale of  
the common  
people”*

# Their mission; Energy reduction & autonomy

thermally  
comfortable



very good  
indoor air  
quality



extremely low  
energy  
consumption

climate  
protection

# Neighbourhood Energy Plan

Step 1: Developing a Neighbourhood Energy Plan.

“It took us a whole year, listening, learning, understanding, discussing, starting over again....but in the end we managed it together.”

First action:

**Pilot biobased insulation ground floor**



# Zandberg urban neighbourhood

Homes: 2.217

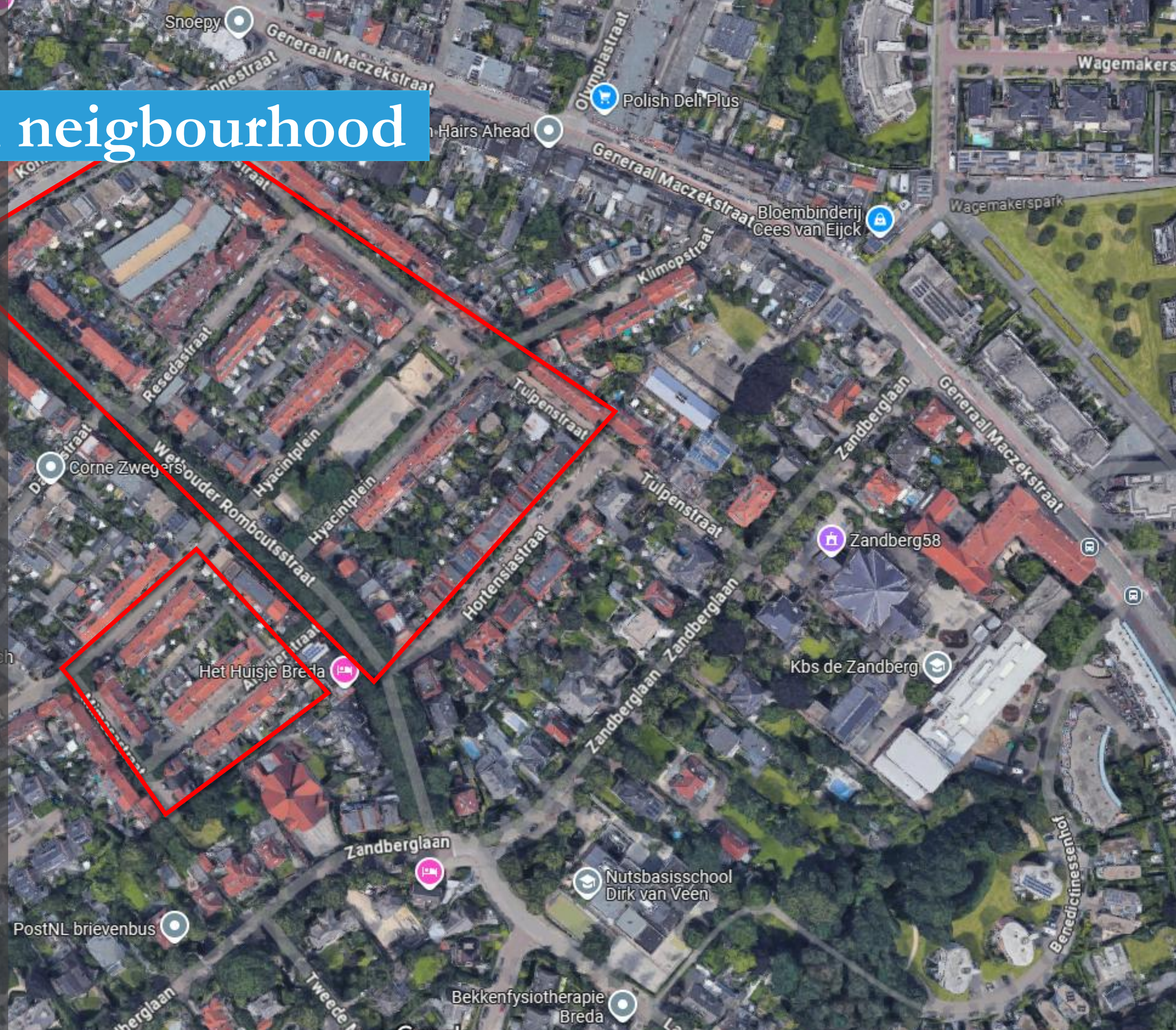
- 70% owner occupied (1.552).
- 8% housing corporations
- 22% rental other

Characteristics: 67,3% built before 1930

poorly insulation:

- single-pane windows,
- uninsulated floors, roofs, and cavity walls.
- Not built with focus on energy efficiency
- significant heat loss through the walls, floors, and roofs.

Area of our project: 1.400 homes



# Zandberg urban neighbourhood; first project

Area of our project: 1.400 homes

300 immediately interested  
in participating

12 homes suitable for pilot  
(based on characteristics)

4 houses selected for pilot





# Anjelierstraat

See more dates



# Pilot biobased insulation ground floor



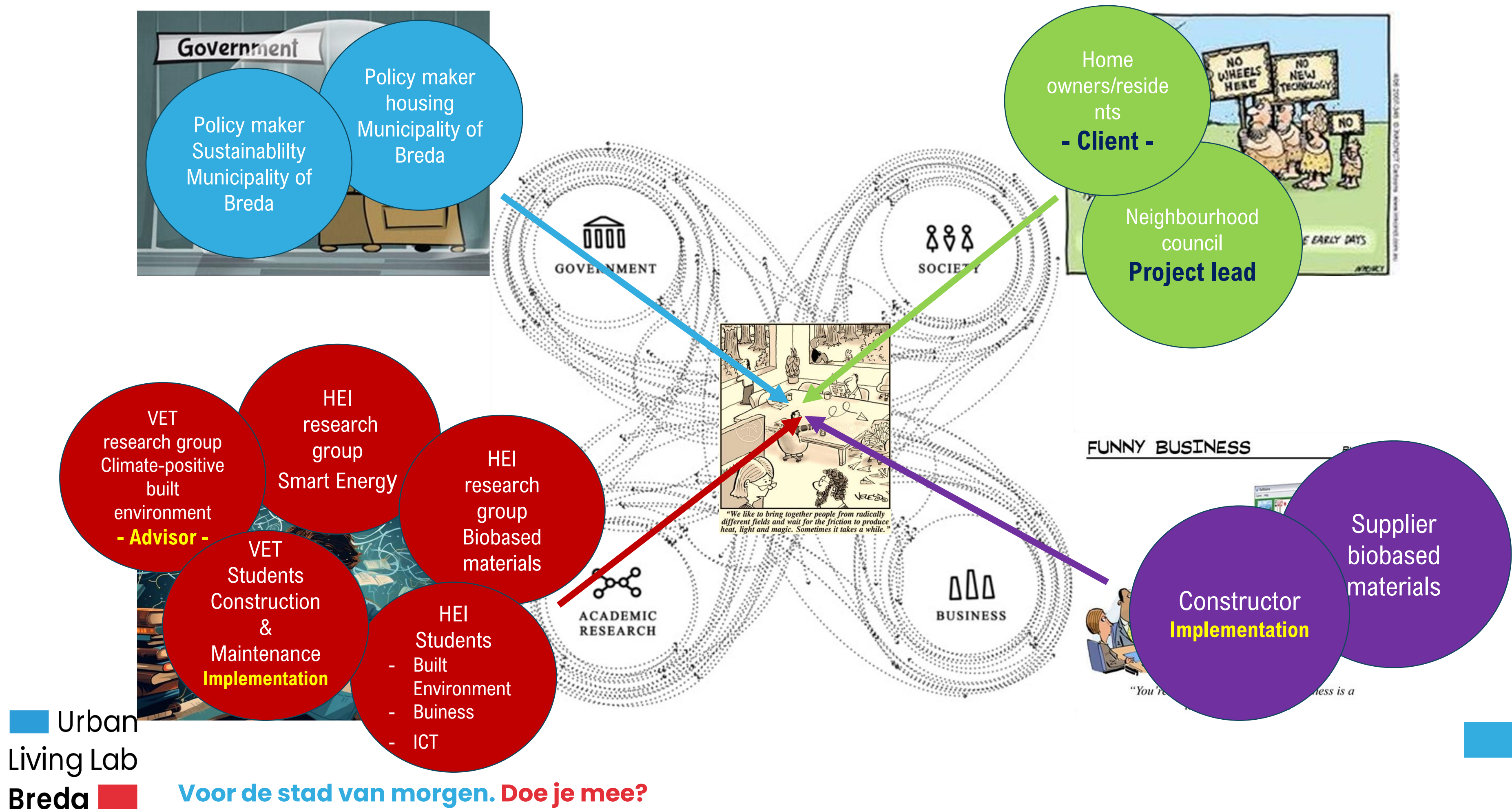
The pilot starts with 1 + 3 pilot houses



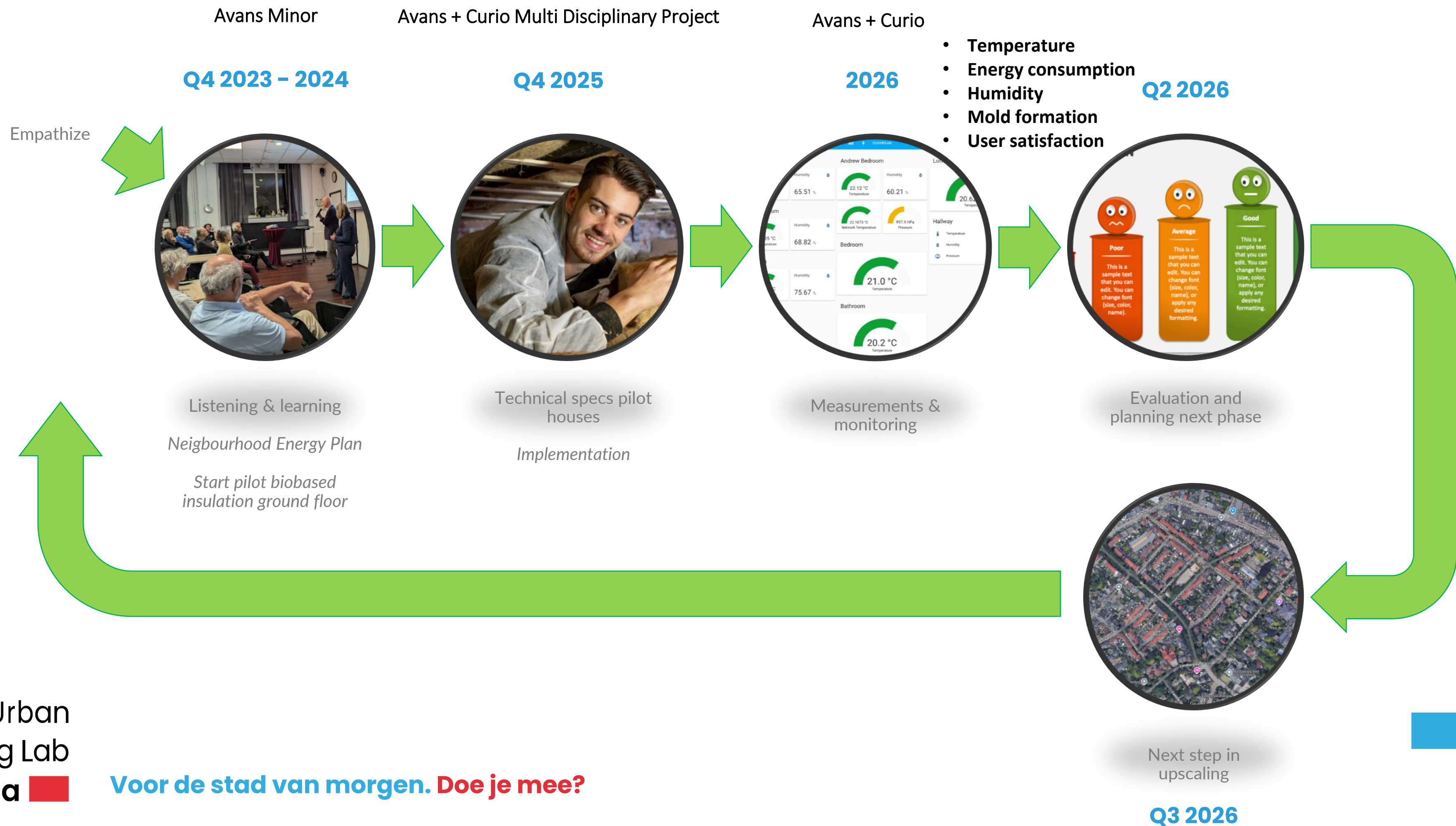
Baseline



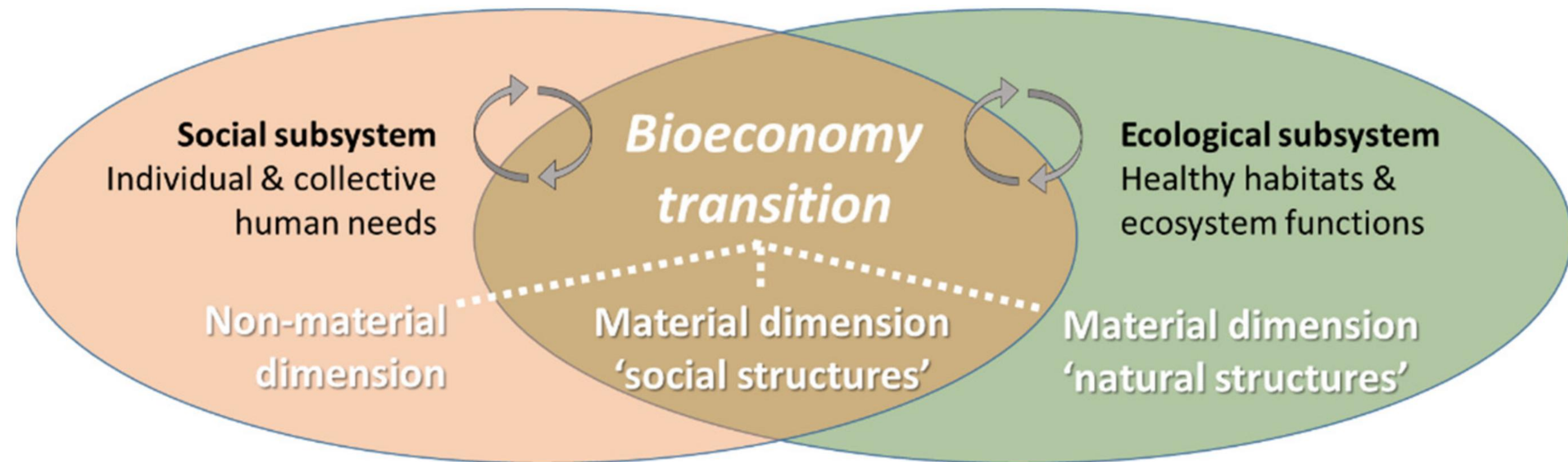
# So, who are involved at this moment?



# Education and research cycle



# And step by step...



Source: Bioeconomy Transitions through the Lens of Coupled Social-Ecological Systems: A Framework for Place-Based Responsibility in the Global Resource System by Liesbeth de Schutter, et al; *Sustainability* 2019

What have we learned so far?

# What have we learned so far?



- Working with private persons = working and dealing with all sort of emotions
- What has been agreed upon today, can change overnight
- Be patient and don't push; more social work than solving technical challenges
- Trust once gained can be gone in a blink

# What have we learned so far?

Where does all my  
Money go??  
It's like, hocus  
pocus I'm brokus



- Neighbourhood council and pilot group is not the majority
- Majority is not busy with being sustainable but with managing costs of living; **“I have to much month left at the end of my money.”**
- Still no business model for permanent funding; ‘affordable for all.’
- How to scale up?; Still no idea
- How to involve commercial and private landlords?

# What have we learned so far?



- Residents drop out because they lose interest
- How do we keep them on board?
- More and new efforts in communication
- What is the narrative?

# What have we learned so far?



- How much we want no involvement of local government...in reality we can't
- Source for funding
- Is the authority to push the biobased agenda...but are unreliable; not consistent in their policy
- too much influenced by politics; how to deal with that?

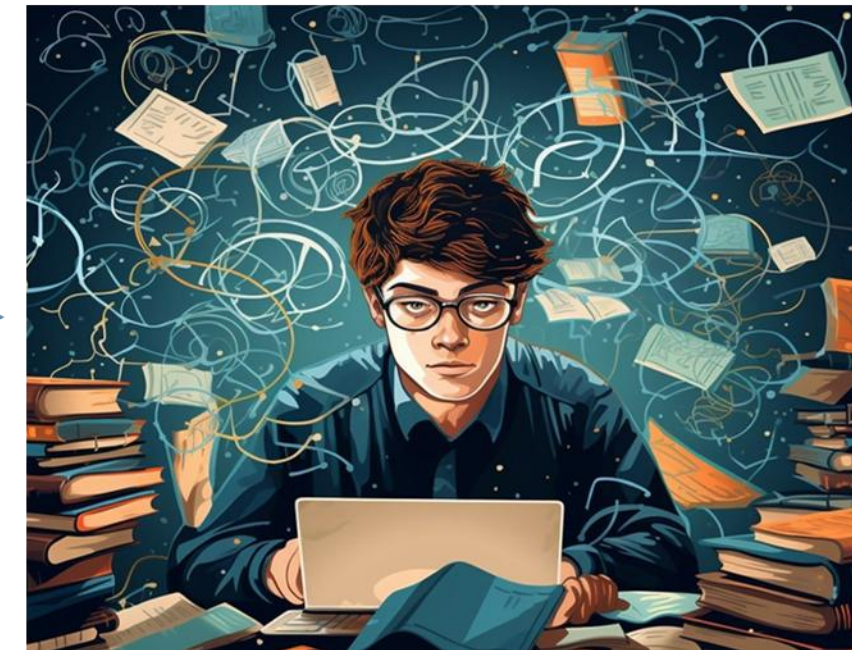
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# What if we would start all over again?



## 1<sup>st</sup> focus on the social process

- Social work
- Communication
- Social interaction
- Group dynamics
- Understand the narrative for individual and collective



## 2<sup>nd</sup> focus on the technical problem and stuff