*Together for a fair, sustainable and resilient city. A city where you have a chance of a good life, regardless of who you are and where you come from.*

Beeld: Tilburg University

19-05-2025
Raymond Sparreboom
Avans University of Applied Sciences

Urban Living Lab Breda

Voor de stad van morgen. Doe je mee?

avans hogeschool

Breda University OF APPLIED SCIENCES

curio

DE ROOI PANNEN

Gemeente Breda
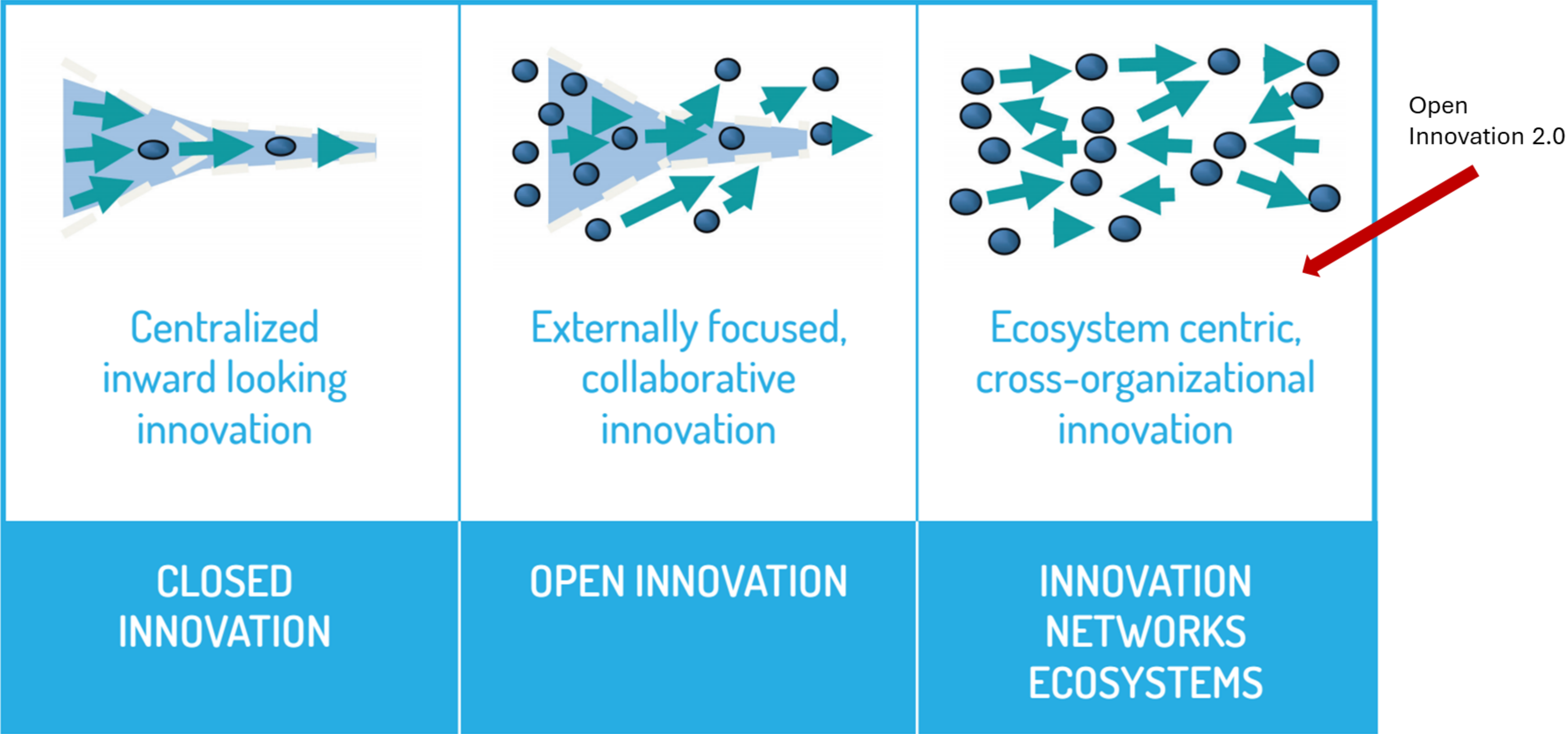
NEDERLANDSE DEFENSIE ACADEMIE

**Narrative**

*Everyone has an equal chance of a healthy and good life.*

*Our heart lies with the citizens and their quality of life.*

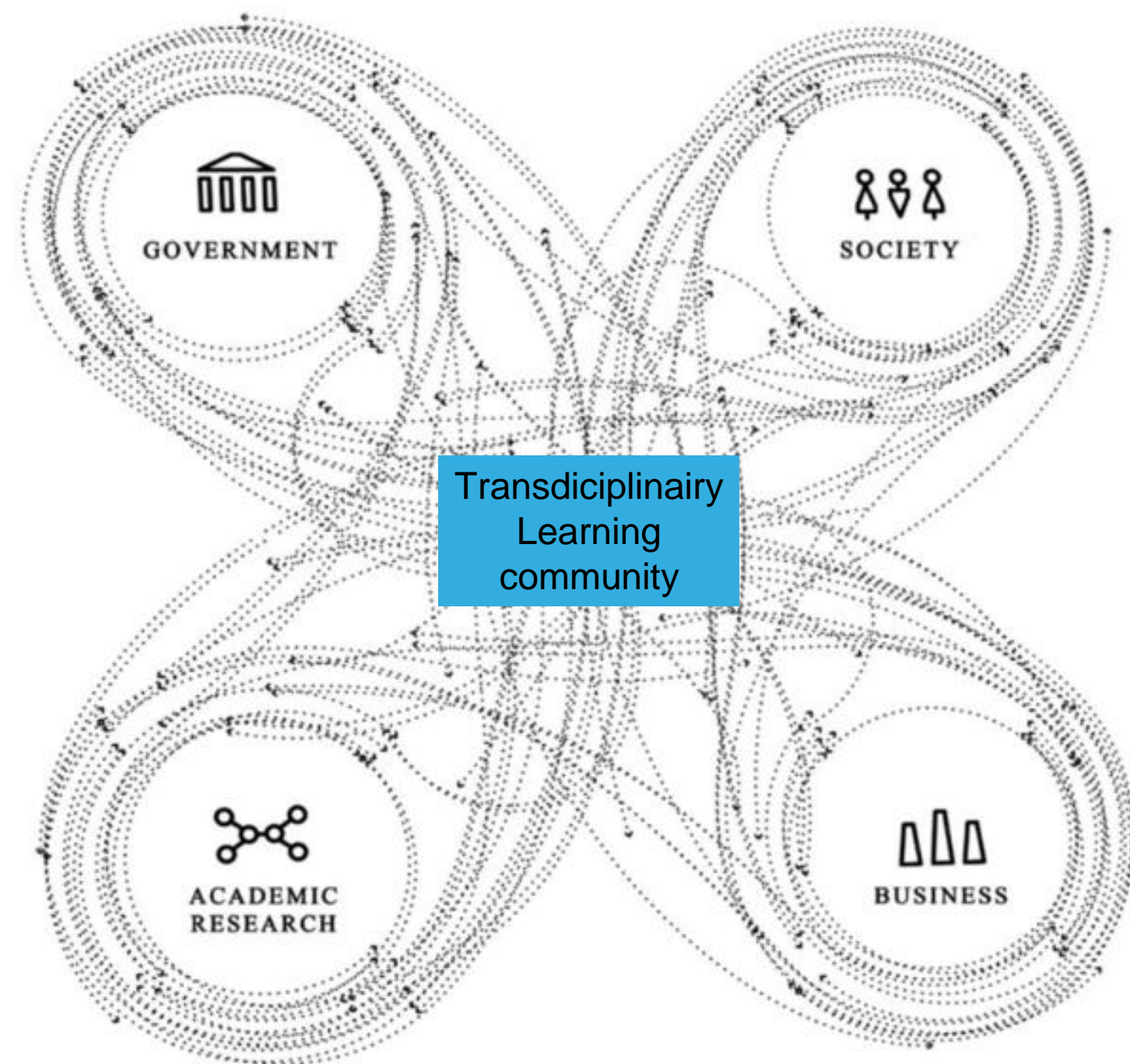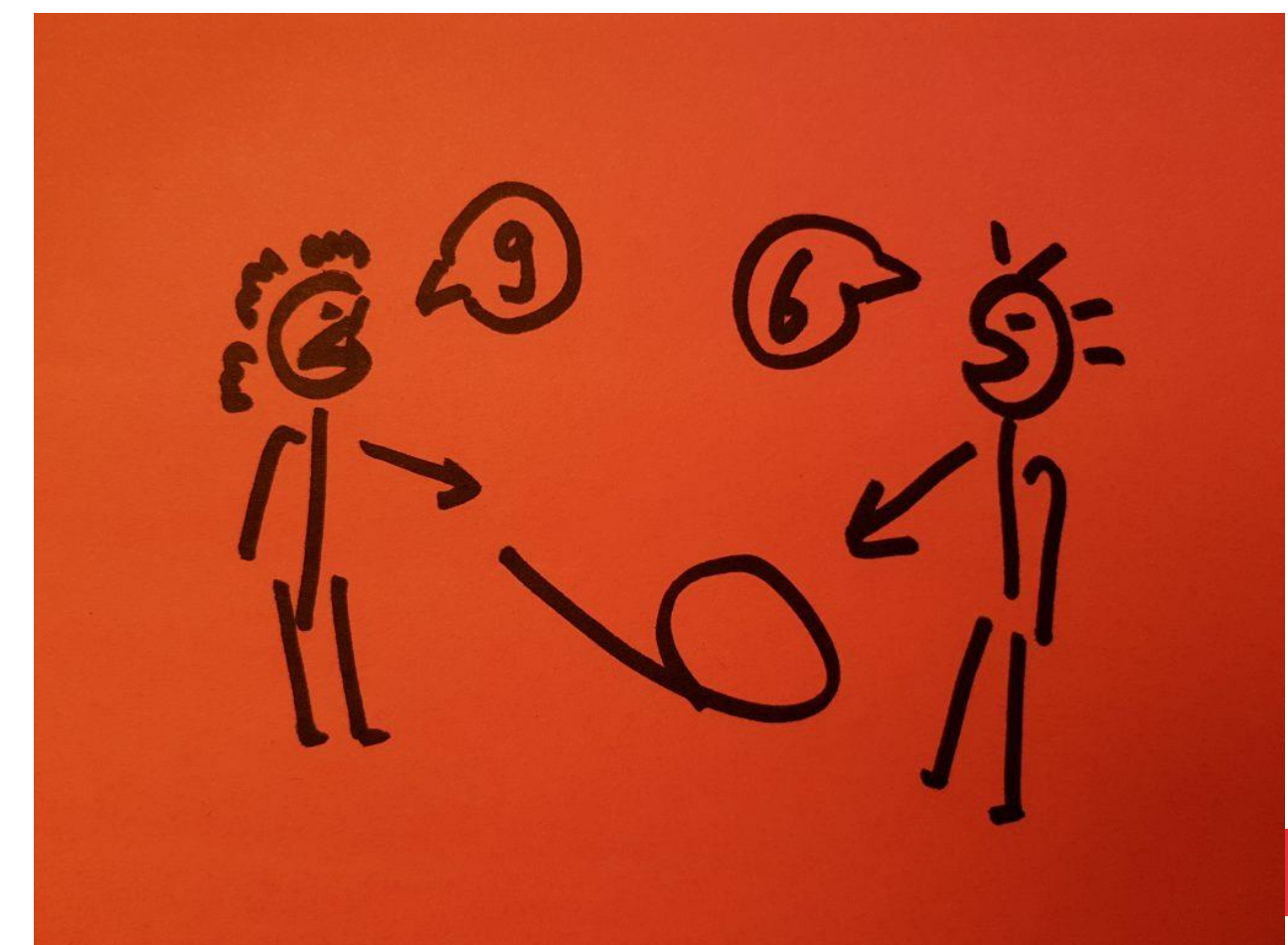*Together we build on the broad prosperity of the city of Breda.*

Beeld: Simon Luyts

# Our methodolgy; Open Innovation 2.0



Open Innovation 2.0

| CLOSED INNOVATION | OPEN INNOVATION | INNOVATION NETWORKS ECOSYSTEMS |
|---|---|---|
| Centralized inward looking innovation | Externally focused, collaborative innovation | Ecosystem centric, cross-organizational innovation |

Figure 1: The Evolution of Innovation

Urb Living Lab Breda

**Voor de stad van morgen. Doe je mee?**

# Transdisciplinary collaboration



GOVERNMENT

SOCIETY

Transdiciplinairy Learning community

ACADEMIC RESEARCH

BUSINESS

Bron: Taratori, Rodriguez-Fiscal, Pacho, Koutra, Pareja-Eastaway and Thomas, 2021

Trans

Discipline A

Discipline B

Non-academic knowledge

Integrated transdisciplinary results

practical knowledge & real experiences of citizens

practical knowledge & real experiences of companies and enterprises

Urban Living Lab Breda
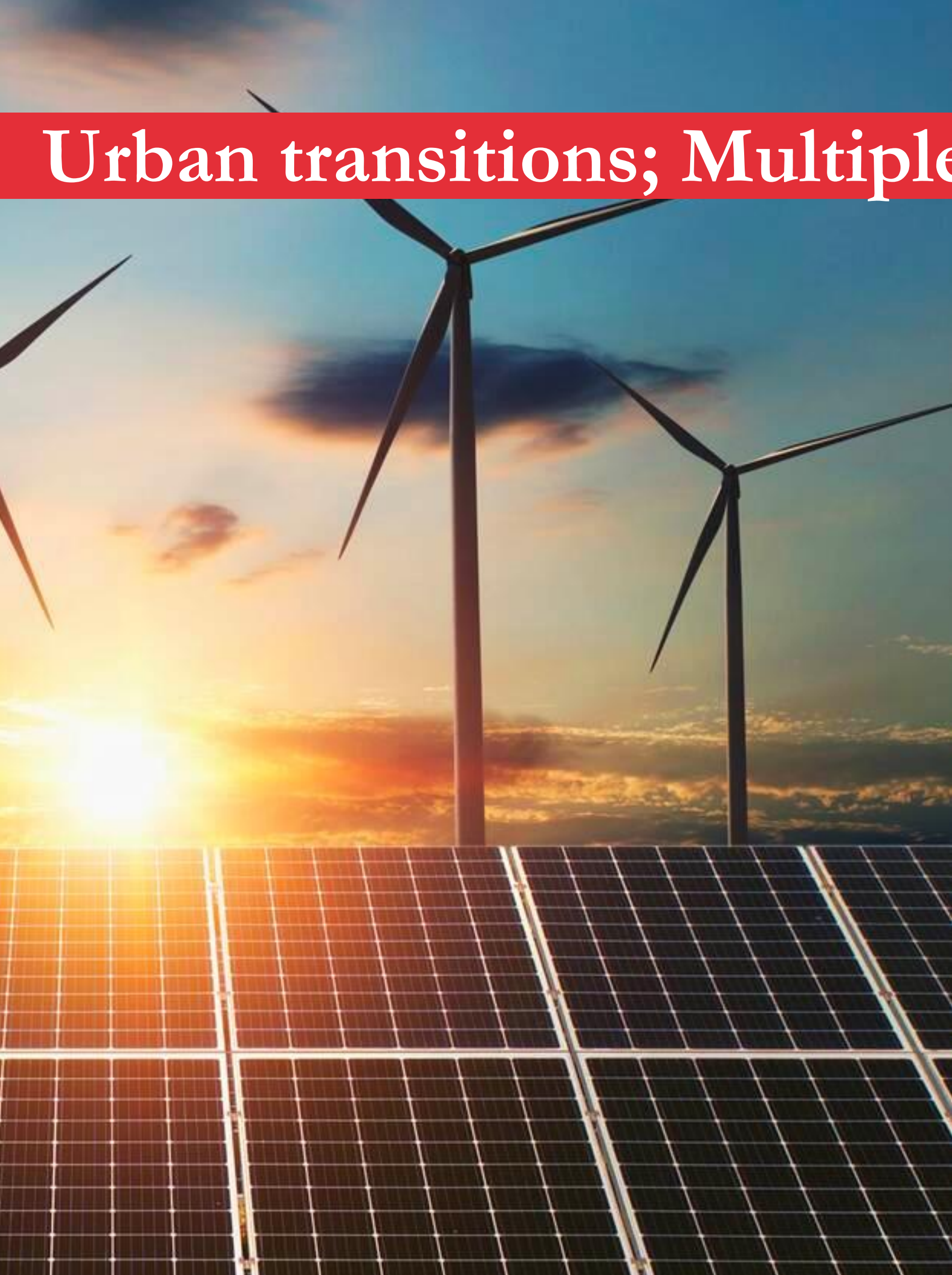
Voor de stad van morgen. Doe je mee?
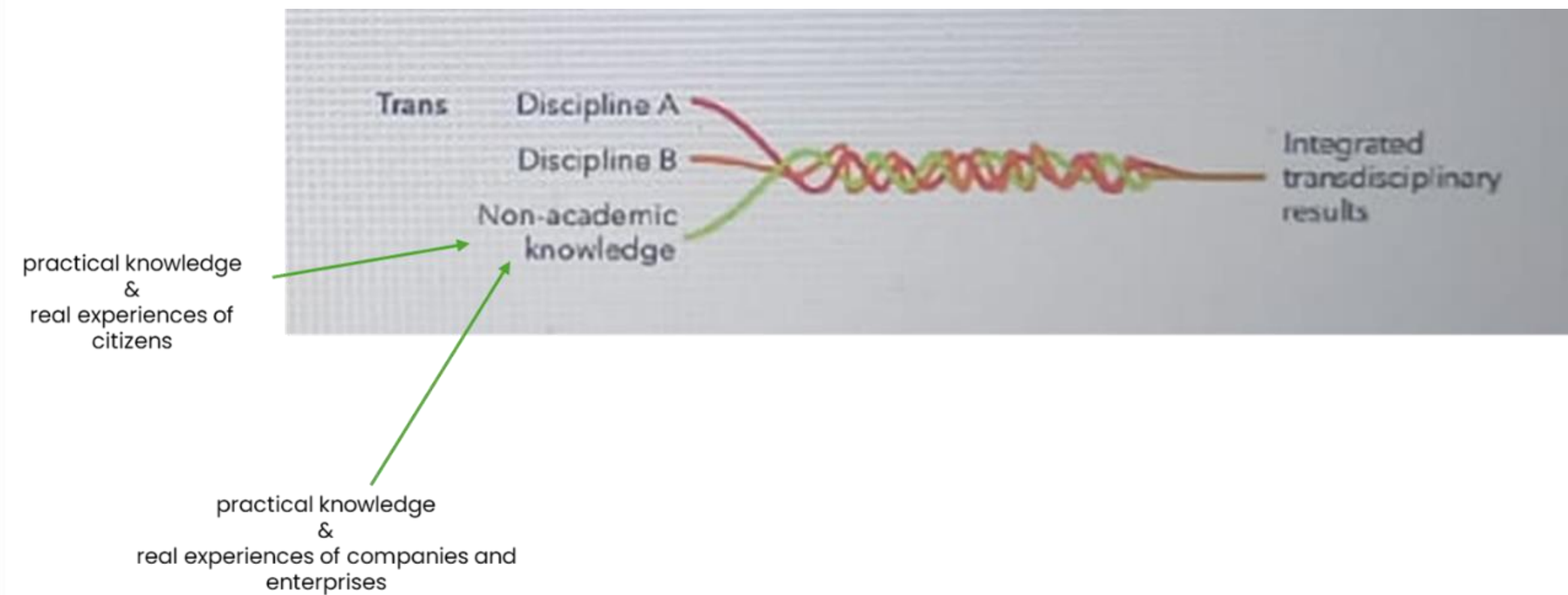
# Urban Transition Programs for tomorrow's city

1. The digital and human centered city

2. **The sustainable, just and healthy city**

3. Impact entrepreneurship; The new standard

Urban
Living Lab
**Breda**

**Voor de stad van morgen. Doe je mee?**

# Urban transitions; Multiple perspectives

Beeld: Movisie

Beeld: BN/De Stem

# Urban site: Zandberg
### 'a citizens approach for biobased insulation of homes'

Wijkraad ZandbergOost

PIONEER

Locatie Zandberg

MNEXT

REGIO DEAL WEST-BRABANT

1. **Listening & learning:**
   - Information evenings for residents organized by the district council
   - Increase outreach via communication via local newspaper, leaflets, personal emails
   - Fostering data via surveys

2. **Preparations for the District Energy Plan & select first pilot project**
   - District council + working group
   - Advisor ULLB

3. **Building the transdisciplinary learning community**
   - Select supplier and implementation partner
   - Who to involve, at first hand, from education and research (VET/HEI)
   - Determine interest by going door to door

4. **Start pilot**
   - Selection pilot homes; trial in similar homes to stimulate/enable a collective approach
   - Feasibility check by expert
   - ….

# General approach

1. **Listening & learning:**
   - Information evenings for residents organized by the district council
   - Increase outreach via communication via local newspaper, leaflets, personal emails
   - Fostering data via surveys

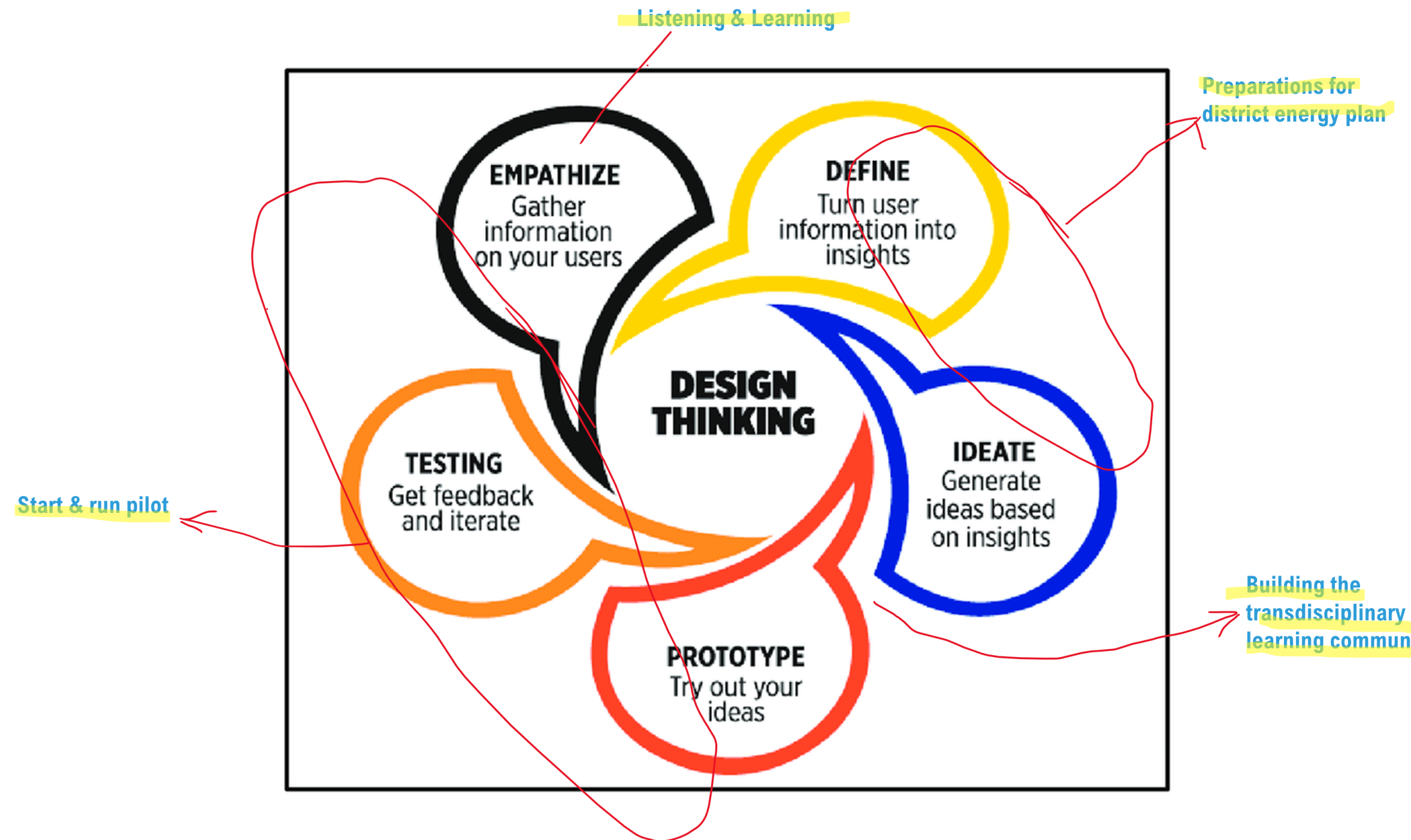2. **Preparations for the District Energy Plan & select first pilot project**
   - District council + working group
   - Advisor ULLB

3. **Building the transdisciplinary learning community**
   - Select supplier and implementation partner
   - Who to involve, at first hand, from education and research (VET/HEI)
   - Determine interest by going door to door

4. **Start pilot**
   - Selection pilot homes; trial in similar homes to stimulate/enable a collective approach
   - Feasibility check by expert
   - ….

# Pilot biobased floor insulation


Flax


Hemp


Wood wool

**The pilot will start with 1 + 3  pilot houses**


Baseline

# Pilot biobased floor insulation

**Q4 2023 - 2024**

- **Listening, learning, preparing energy plan**

**2025**

- **Q2/3 2025**:
- ➤ Developing and describing  the best construction solution(s) per pilot house

- **Q4 2025/Q1 2026**: Execution (constructor in collaboration with students/teachers)

**2026**

- **2026 – 2027**: Measuring and monitoring (research in collaboration with students/teachers, constructor and home-owners):
- ➤ Energy efficiency
- ➤ Indoor climate quality
- ➤ Business model
- ➤ User satisfaction

- **Q2 2026:** Foster interest for upscaling
- **Q3 2026**: Upscaling based on mid term evaluation



LEVEL OF SATISFACTION
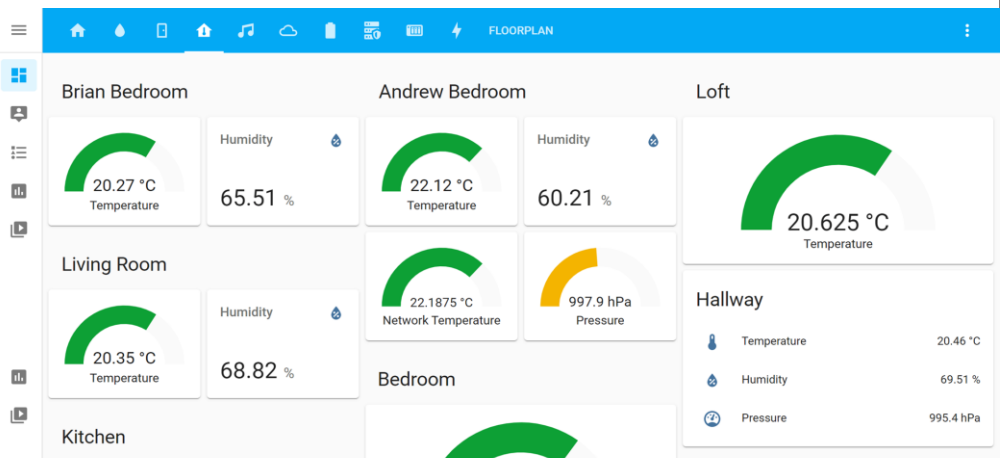
# Pilot biobased floor insulation

## Learning List

**Does our approach lead to real and lasting impact:**

1. Does it lead to durable resilient transdisciplinary learning communities to independently push transitions?

2. Does is lead to a positive attitude towards the use of biobased materials (also healthy business case?)?

3. Effect on energy consumption and indoor climate quality?

4. Does it contribute positively to the education and training of our young professionals, our future workforce?

# Reflections



- Integration with education.

- Difference in thinking and doing between professionals and end users; **'System world vs real world'**

- Timing is key: when to speed up and when to slow down? Gain trust.

- As difficult as it may be sometimes, leave the end user in charge.

- Transdisciplinary collaboration = another role for the professional.

- Technological innovation and social innovation are only successful if there is also economic innovation; is there a realistic business model?
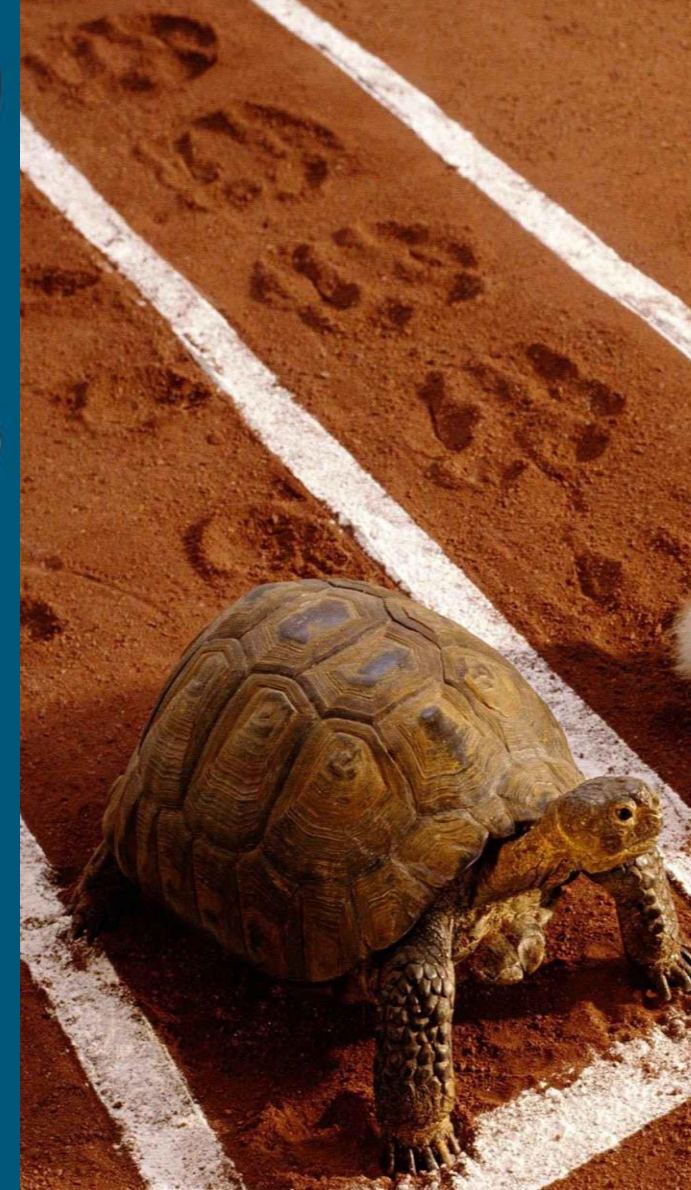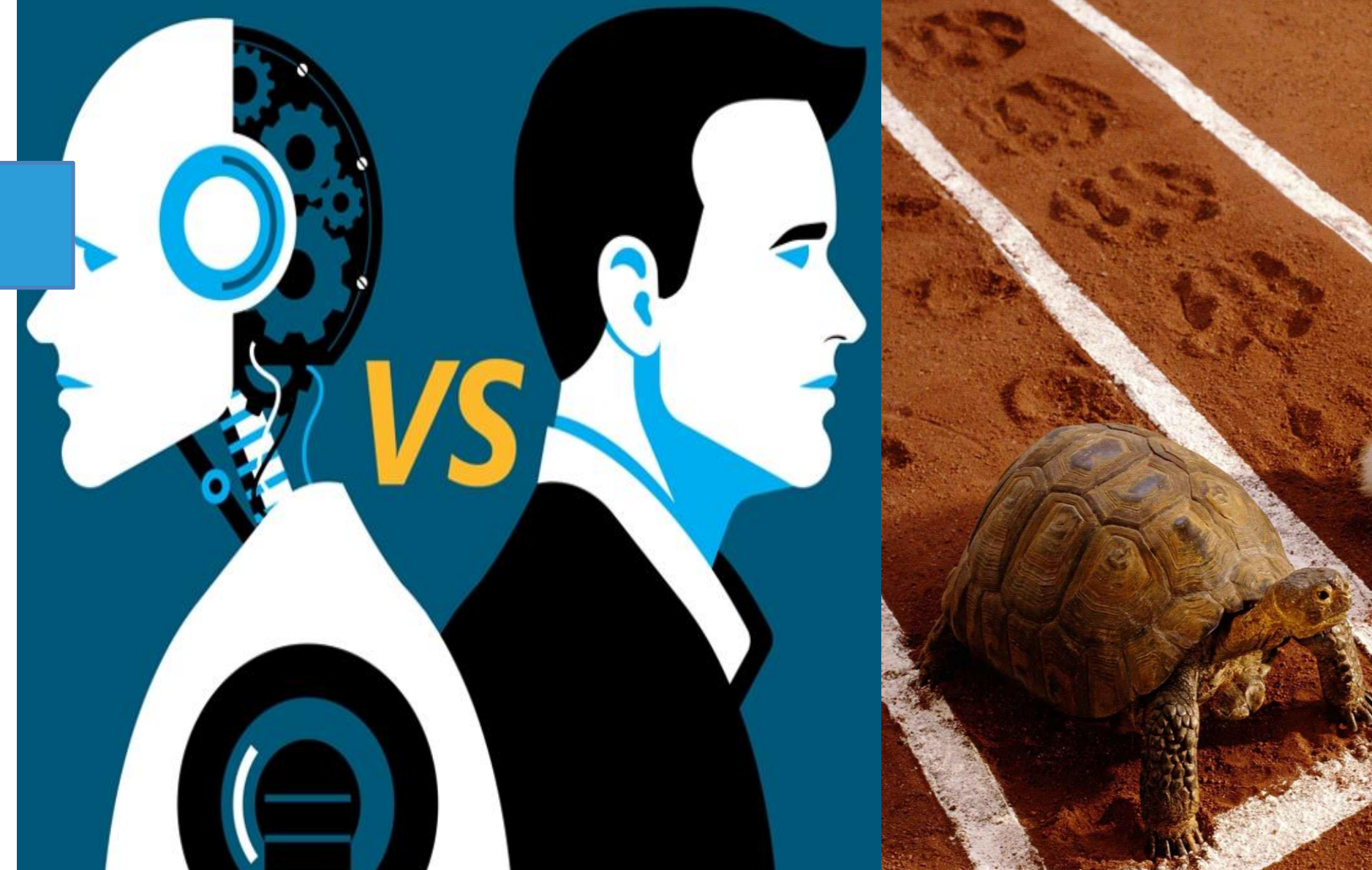
# To conclude: Our main roles in transdisciplinary learning communities

## knowledge broker /bridge builder

Independent advisor
Monitoring (local) political changes,
representing the interests of residents,
bridging the differences,
providing and combining knowledge,
providing manpower,
…

## Enabler

Empower citizens to work
with other stakeholders, into
independent and resilient
learning communities
…

Urban
Living Lab
Breda

Urban
Living Lab
Breda

Voor de stad van morgen. Doe je mee?