

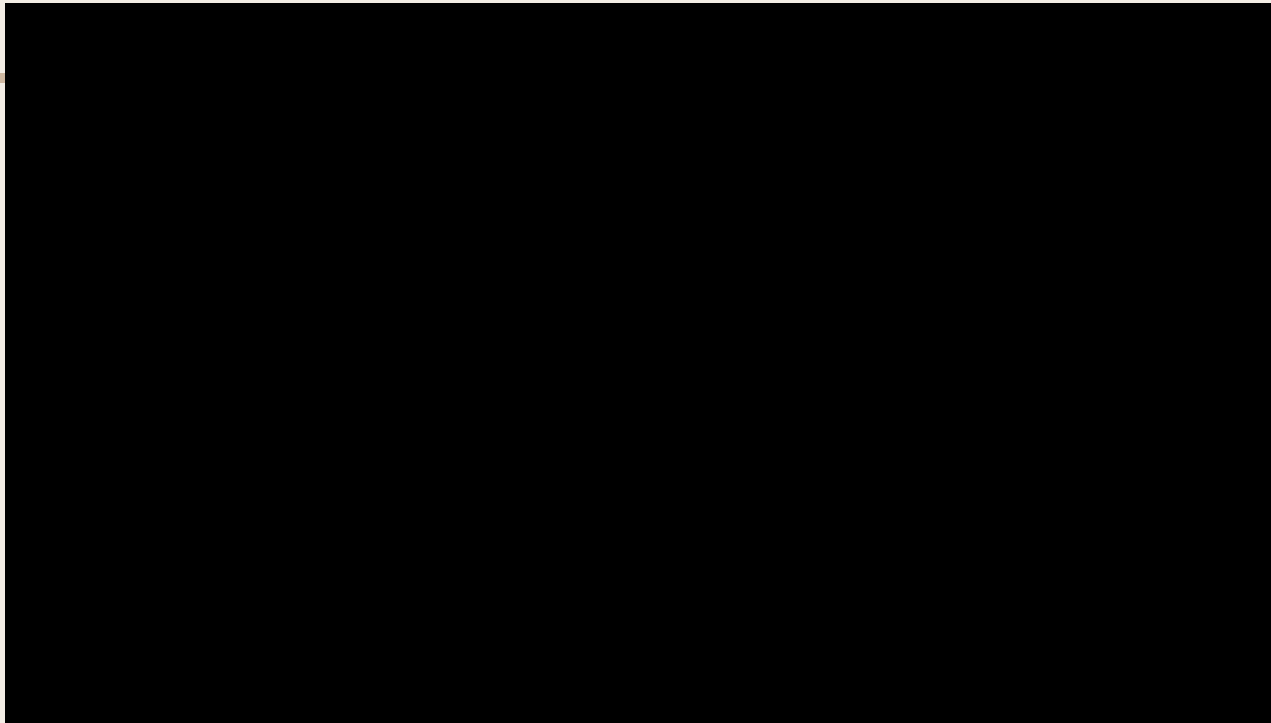
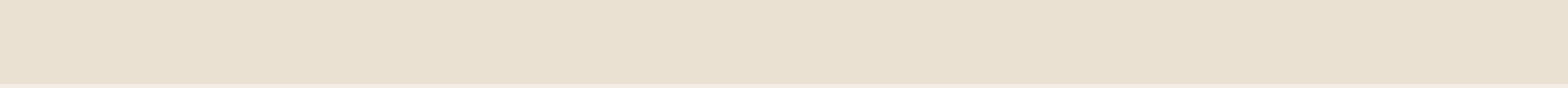
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# Protecting Tenants in Social Housing Against Heat

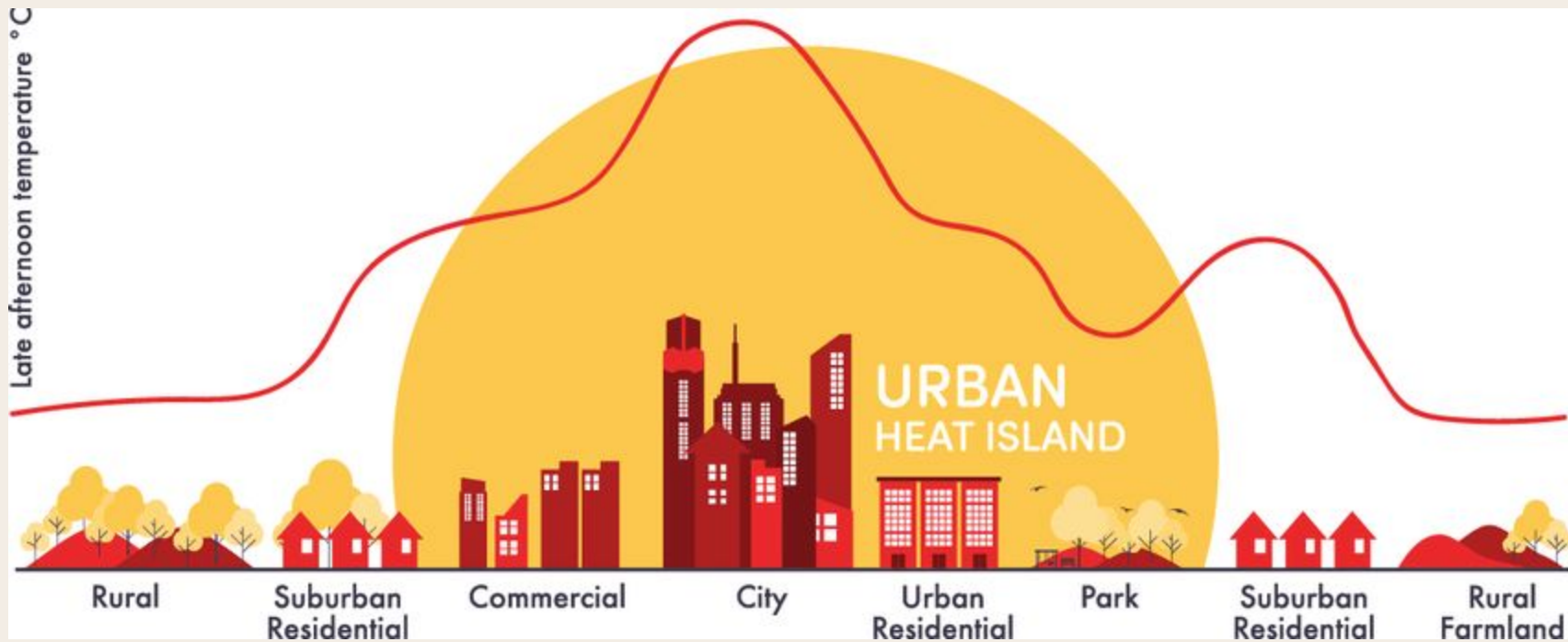
## Transition Imaging and Pathway Making for Climate Adaptation in Dutch Housing Associations

Lianna van Gils  
Ad Straub  
Zac Taylor





Late afternoon temperature °C



# Short overview of literature

## Surroundings



Pavement  
Low % green  
Low % water

## Dwellings



High solar gains  
Mass  
Insulation

## Tenants



Elderly  
Young Children  
Sick people

## Measures



Ventilation  
Sunshades  
Insulation

## Policies



?

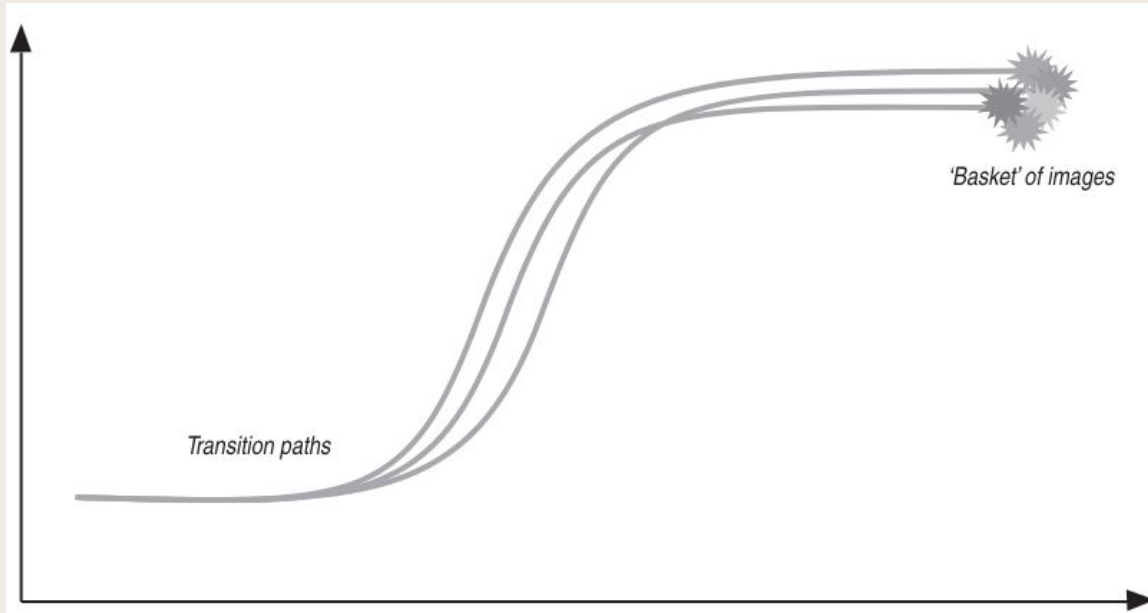
# Problem statement



It is unclear where we stand in the battle against heat in social housing and what this transition should look like.

**MRQ: How can Dutch housing associations be instigated to improve policies and strategies on heat adaptation?**

# Transition Management Tools

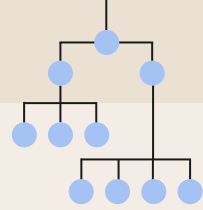


*Transition images and paths (Loorbach, 2007)*

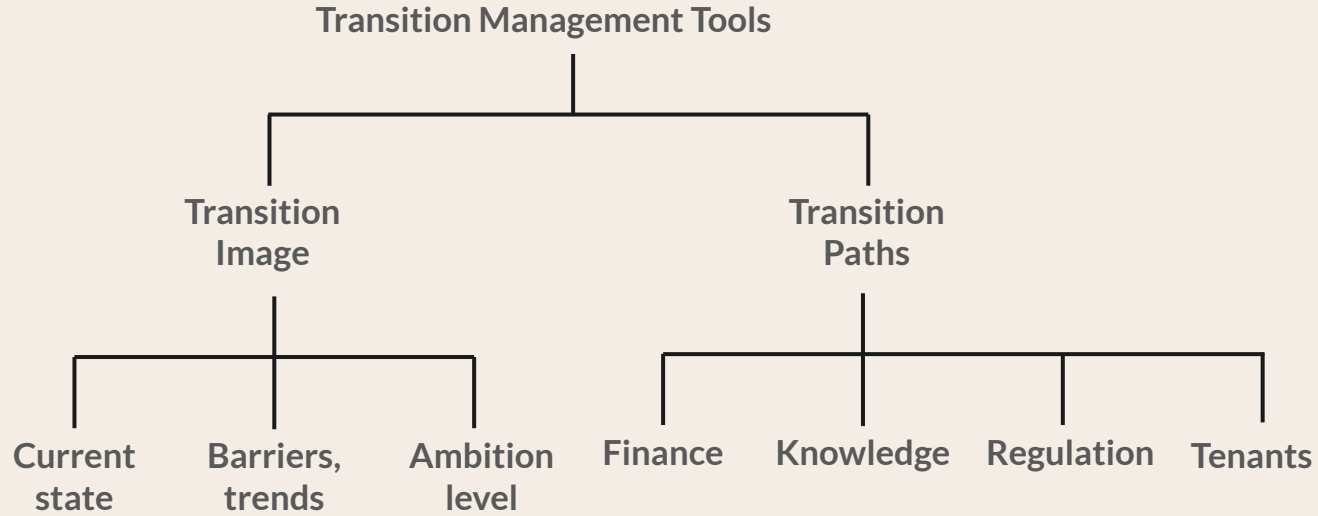
Research questions:

What should a transition image for the transition to heat-adapted dwellings look like?

How can transition pathways be composed of housing associations becoming heat adapted?



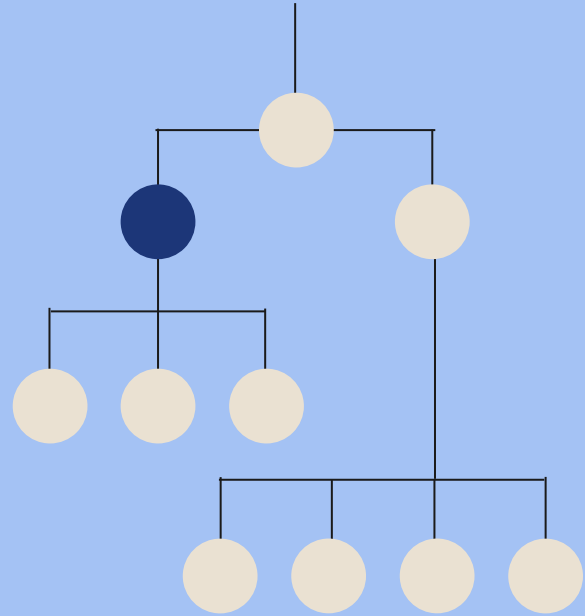
# Presentation Structure

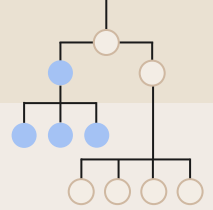




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# Transition Image





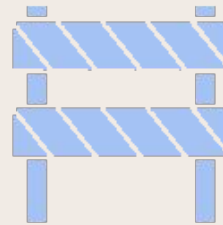
# Transition Image



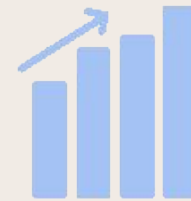
Goal



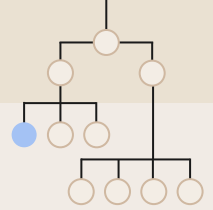
Current state



Barriers, trends  
developments



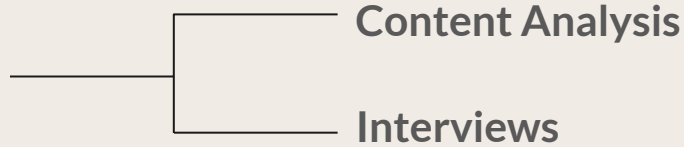
Ambition level

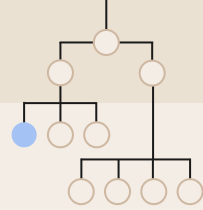


# Current State

RQ: What is the current state of awareness and adaptation to heat stress among Dutch housing associations?

Current state





# Content Analysis

Annual reports

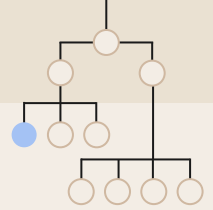


Policy plans

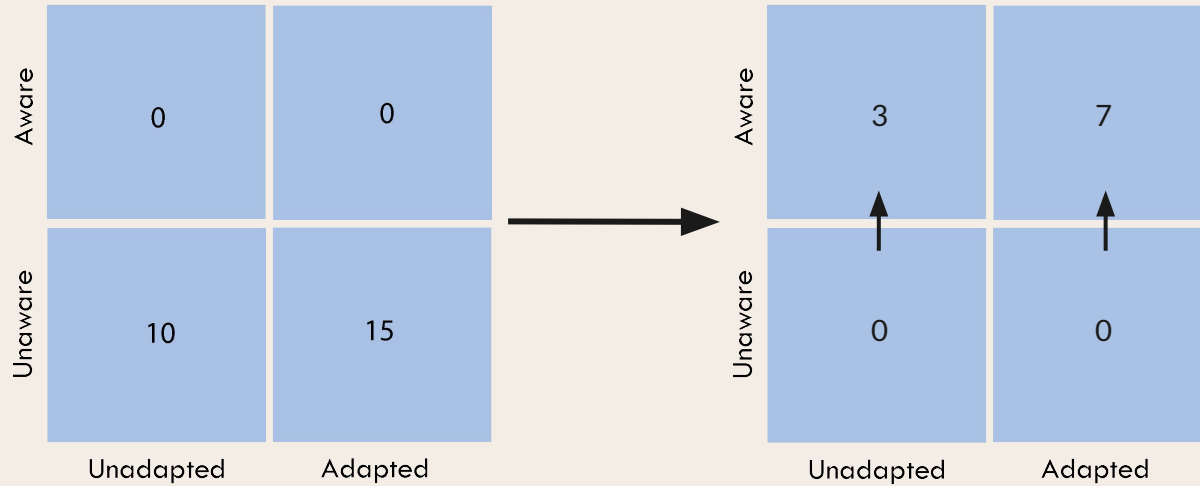


Performance Agreements



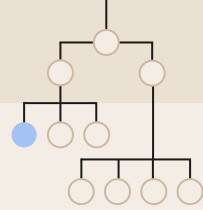


# Content Analysis - Results

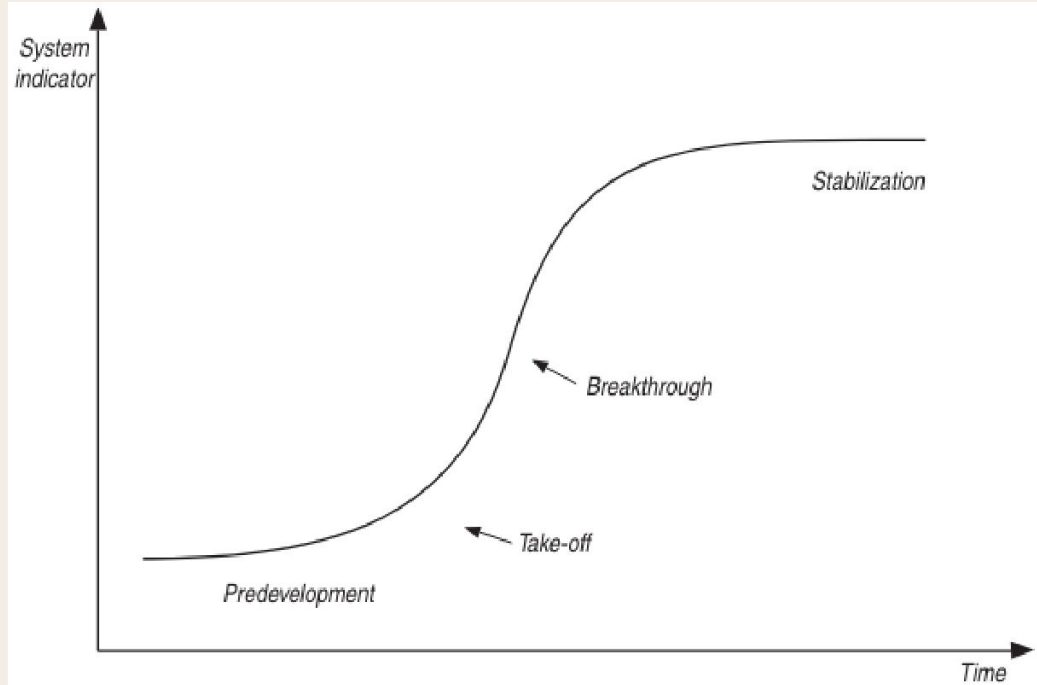


*(Roders et al., 2012)*

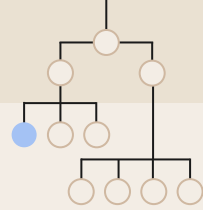
*(2024)*



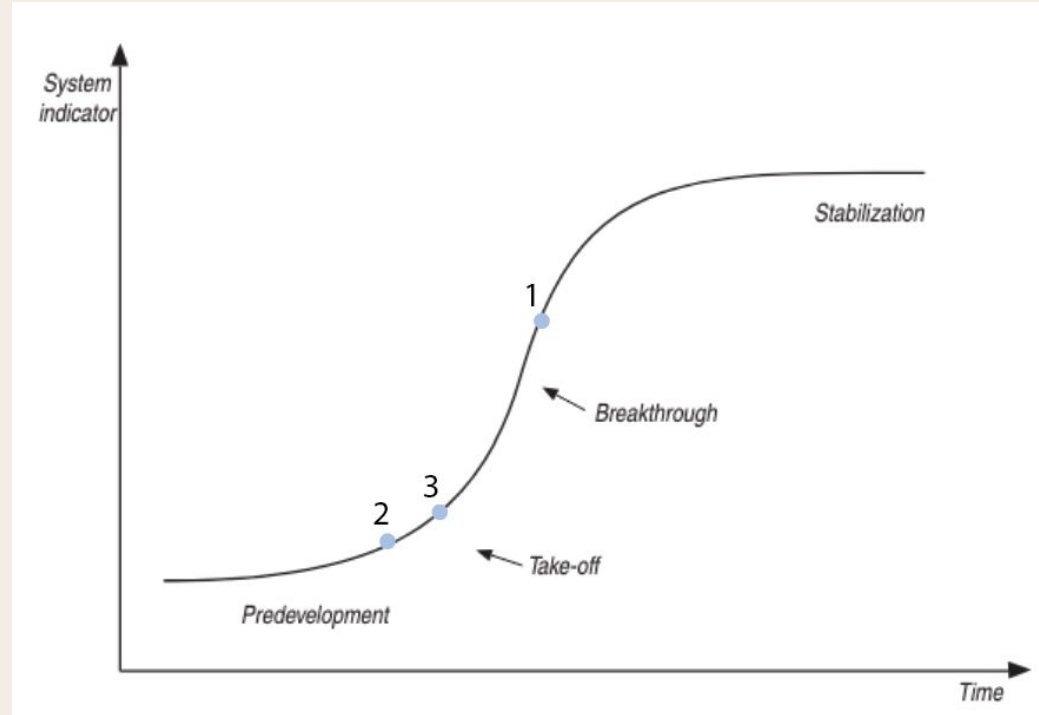
# Interviews

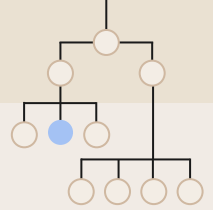


*Transition images and paths (Loorbach, 2007)*



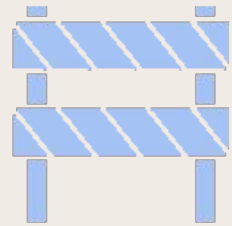
# Interviews - Results





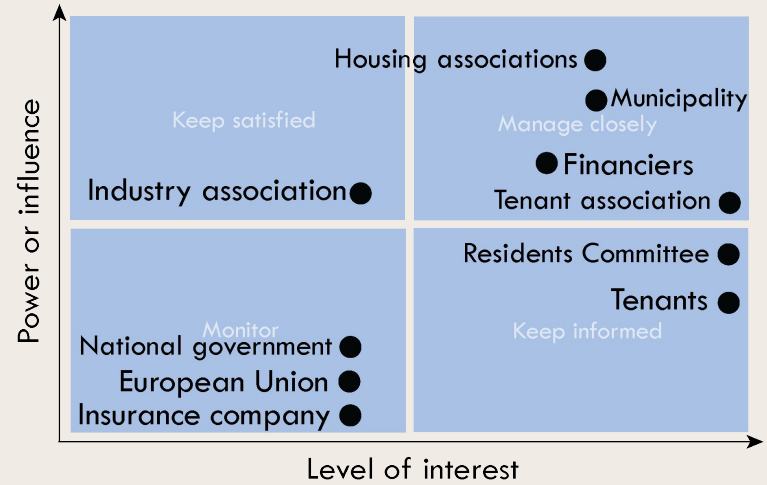
# Barriers, Trends, Developments

SQ: What barriers prevent Dutch housing associations from adapting to heat stress and what opportunities are there?

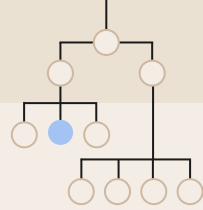


Barriers, trends and developments

→ Interviews







# Interviews - Results



Finance



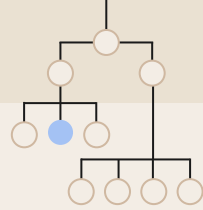
Knowledge



Regulation



Tenants



# Interviews - Results



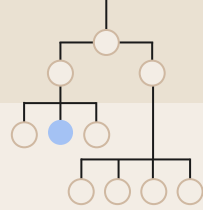
## Finance

### Remarkable:

- Biggest barrier is finance (Not a priority)
- Subsidies from municipality

### Conflicting:

- Applicability of the subsidies
- Public banks' financing



# Interviews - Results



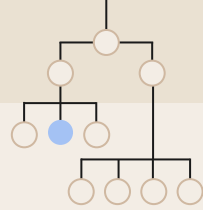
Knowledge

Remarkable:

- Not enough convenient and consistent calculation methods available
- Information on vulnerability of surroundings, buildings and tenants available
- Insulation, sun shades and ventilation

Conflicting:

- TO-Juli convenient but keeps changing and made for energy transition



# Interviews - Results



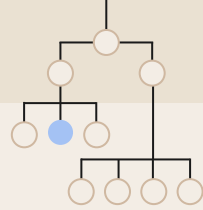
## Regulation

### Remarkable:

- Lack of regulation → Not a priority
- Performance Agreements good incentive
- HA want benchmarks
- Protected cityscape
- EU Taxonomy not relevant

### Conflicting:

- Performance Agreements too general to make a difference



# Interviews - Results



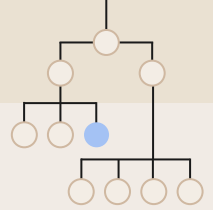
Tenants

Remarkable:

- Tenant behaviour can make 7 degrees difference
- Multicultural background is opportunity
- Frustration tenants side

Conflicting:

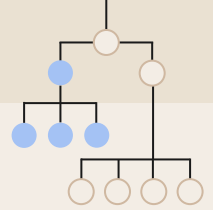
- Measures VS. Tenant behaviour



# Ambition Level



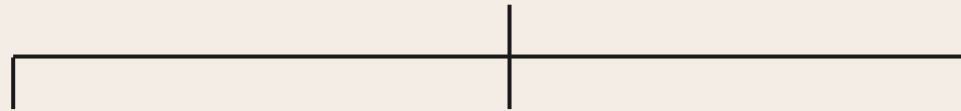
Ambition level



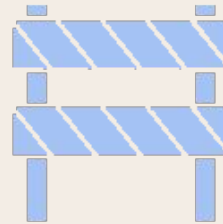
# Transition Image



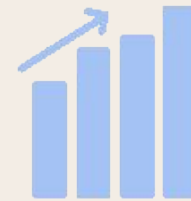
Goal



Current state



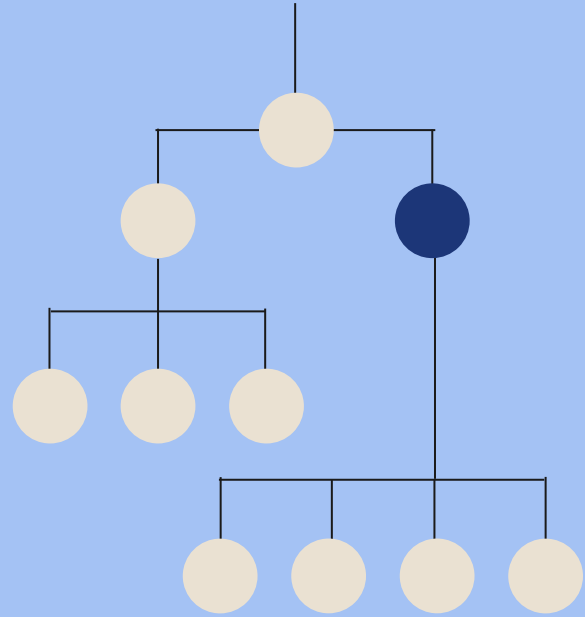
Barriers, trends  
developments



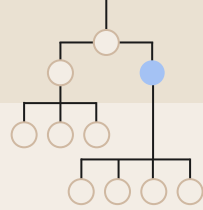
Ambition level

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# Transition Paths

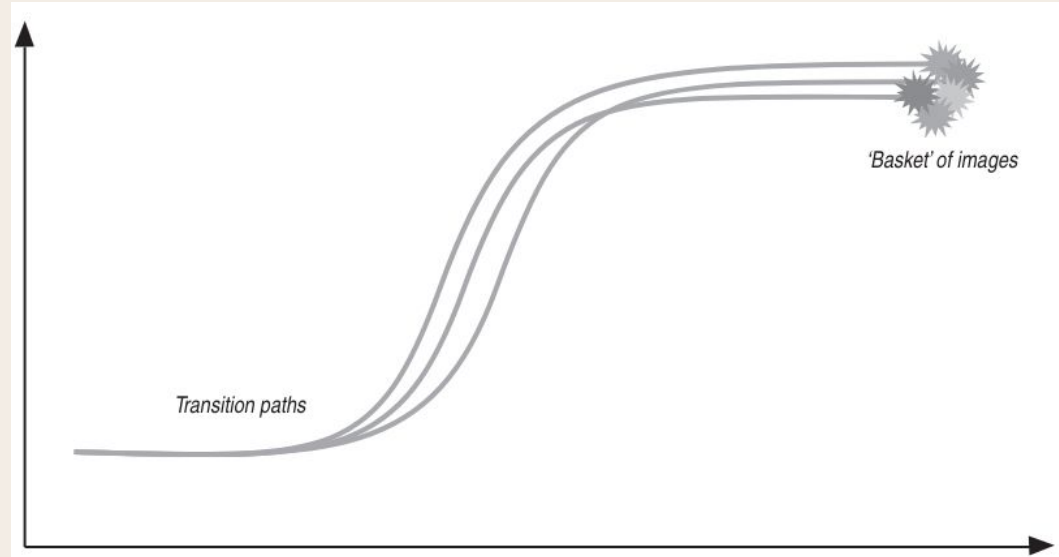




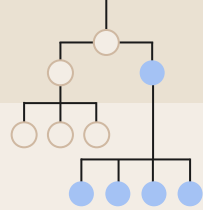


# Transition Paths

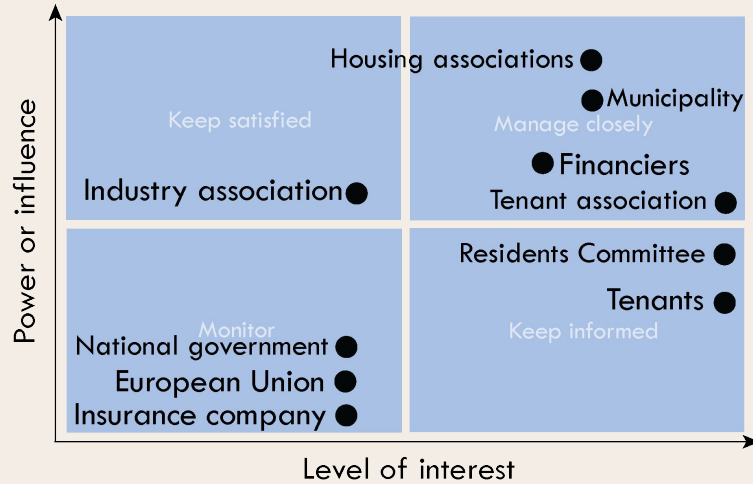
- Description of changes to achieve target
- Indication of which changes should take place when
- Ideas on how these changes should take place and with whom
- Short- and long-term goals



*Transition images and paths (Loorbach, 2007)*



# Transition Paths



Finance



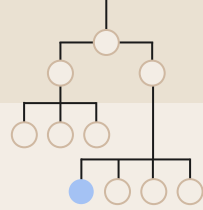
Knowledge



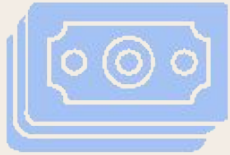
Regulation



Tenants

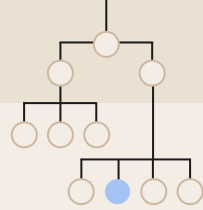


# Transition Paths - Finance



Finance

- Subsidies align with project planning
- Banks' financing
  - Municipality as mediator
- Co-opting solutions



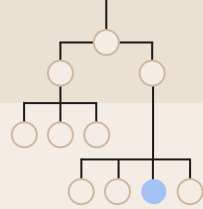
# Transition Paths - Knowledge

- Bring knowledge together

Surrounding X building X tenant



- Interviews:
- Elderly have a higher social risk
  - Elderly have a higher health risk
  - TO-Juli for dwellings
  - Measures



# Transition Paths - Regulation

- Performance Agreements
  - National
  - Local
- Benchmarks

## Climate adaptation: Heat stress

26. De gemeente werkt met partners uit het fysieke en het sociale domein aan een hitte-aanpak met speciale aandacht voor zelfstandig wonende ouderen.

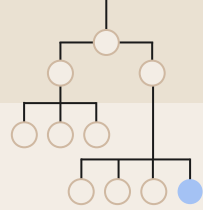
De gemeente maakt een lokaal hitteplan en zal jaarlijks de uitvoering evalueren en actualiseren. In de periode 2024-2026 stelt de gemeente subsidie beschikbaar voor fysieke maatregelen die bijdragen aan klimaatadaptatie, waaronder maatregelen voor vastgoed tegen hitte.

27. De gemeente en de corporaties onderzoeken gezamenlijk de haalbaarheid van het instellen van een hittenorm op basis van specifieke data.

Deze data is afkomstig uit VABI, datasoftware op het gebied van vastgoed en duurzaamheid, en richt zich specifiek op de beoordeling van 'thermische overlast' (TO) in juli. Volgens de stichting W/E adviseurs wordt hierbij een waarde aangehouden van hoger dan 4,8.

28. Corporaties onderzoeken welke woongebouwen en ontmoetingsruimtes meeste kans op oververhitting hebben en stellen vast of er risicocomplexen zijn.

Corporaties onderzoeken of ze in een aantal seniorencomplexen zonwering aan kunnen brengen of andere gepaste maatregelen kunnen treffen. Als dit tot uitvoering komt, kan gebruik gemaakt

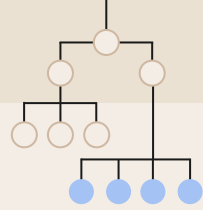


# Transition Paths - Tenants



Tenants

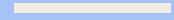
- Being proactive
- Social property manager
- Cool spaces
- Cultural knowledge



# Transition Paths

Short- vs. long-term goals





# Presentation Heat Session



# Presentation Heat Session

Objective: Receive confirmations and feedback on findings

- Agreed
- Financial part important
- Responsibility of architect



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# Positioning in the broader Context

# Positioning in the broader Context



- Current state of HA
- Transition Management Tools
- Stakeholders

# Conclusions



- Government
- Municipality
- Housing associations
- Aedes

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# Thank you!

Are there any questions?