

# Thermo Bello

## The role as collective heat pioneer

Friday April 3rd 2020  
Co-creation webinar  
SHIFFT



### Programme:

1. Thermo Bello: Self organisation of a local community in district heating
2. Thermo Bello: A prototype to accelerate natural gas phase-out
3. Energie Samen Buurtwarmte: A support structure for local communities in the natural gas phase-out



ENERGIEBEDRIJF Thermo Bello bv

# Thermo Bello Self organisation of a local community

*Kunnen we  
het zelf  
beter?*

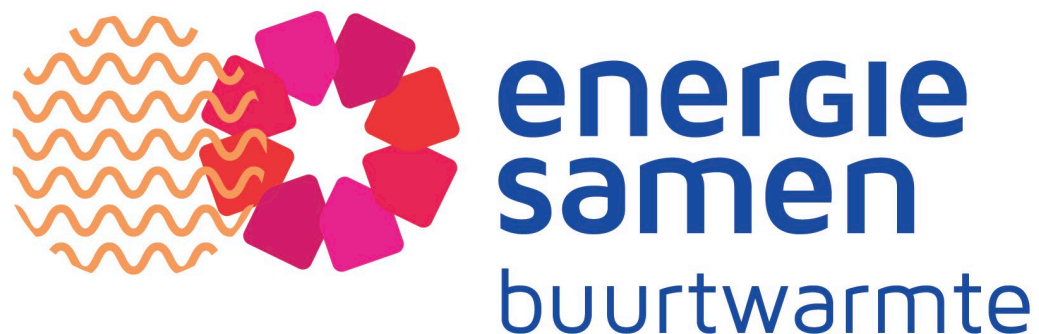


*Beheer warmtenet  
in eigen hand....*

*Energie  
creëer je samen!*

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# Emergence of Thermo Bello



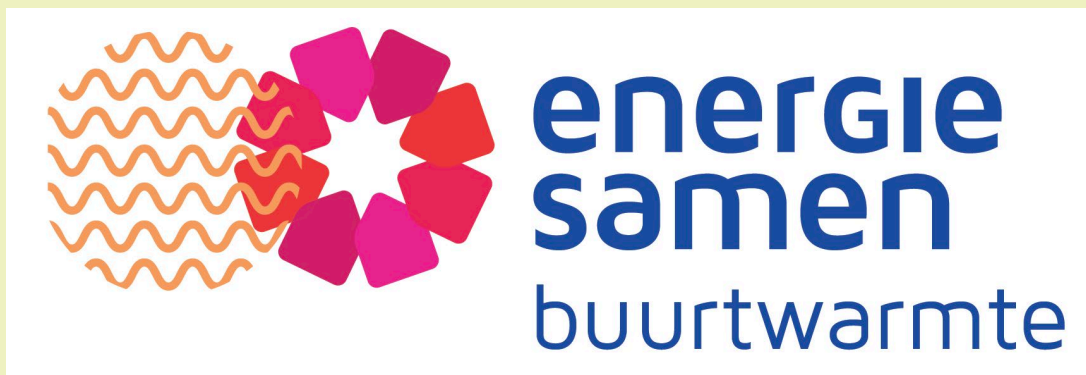
- 2007 Drinkwater company wants to sell its district heating activities
- Dutch district heating companies and the city of Culemborg don't want to buy it
- The district has an active working group on energy and installations: initiative for a feasibility study
- 2008 the investigation process is organised in an (informal) association with 60 members
- 2008 a first draft Business Plan is ready in May: a survey in the district shows trust in the process
- The general assembly votes for creation of Thermo Bello Ltd in November 2008.
- April 1th 2009, Thermo Bello is owner of the district heating activities.



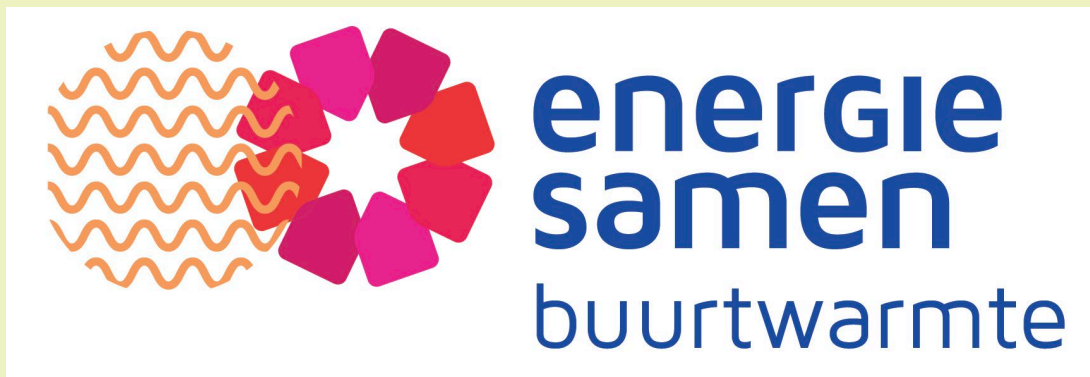
# Thermo Bello operations



- 3 Roles: Producer, network operator, distributor of district heating
- Heating source: drinking water basin
- Low temperature: 20 to 50 degrees Celsius
- Households have individual installations for warm tap water
- Technology: Heat pump and natural gas (peak)
- Annual production: 9.000 GJ (2500 MWh)
- Annual turn over: 250.000 Euro



# Structure of Thermo Bello



## Two legal entities:

- Limited company with 42.750 Euro shares
- Cooperative is 100% shareholder. Two membership categories: A) individual shareholders, B) association of residents

## Goals:

- Residents involvement
- Financial risks on a voluntary basis
- Business operations guaranteed

# Residents involvement with Thermo Bello



Customers: 220 households,  
7 utility buildings  
Technical staff: 4 (2 volunteers) (0,3 fte)  
Director: 1 (0,3 fte)  
Board members: 3  
Members: A: 60, B: association of residents  
with 300 members

## Goals:

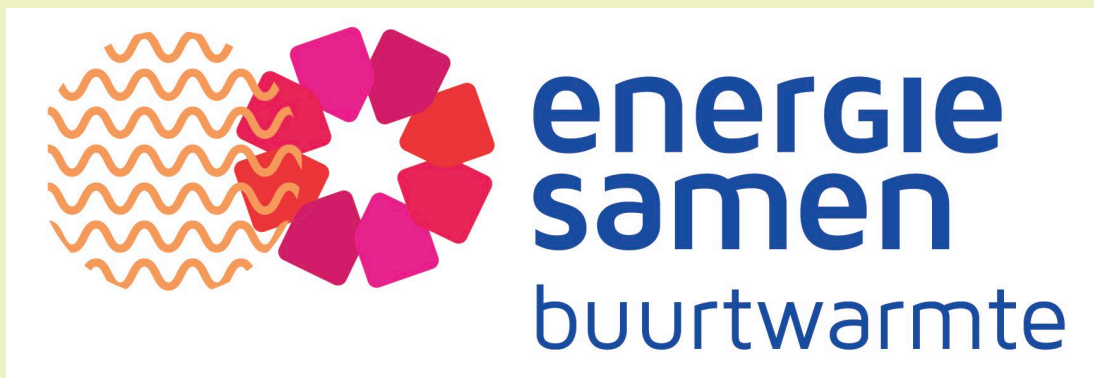
- Satisfaction of residents
- Licence to operate: From, For and By residents.



# Lessons learned in residents involvement



- We utilize capacity of people in the district
- We move step for step
- We seek resistance to improve
- We are detached from the result
- We seek dialogue, we postpone judgement
- We are transparent in what we do





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# Thermo Bello

## A prototype to accelerate natural gas phase out

*Kunnen we  
het zelf  
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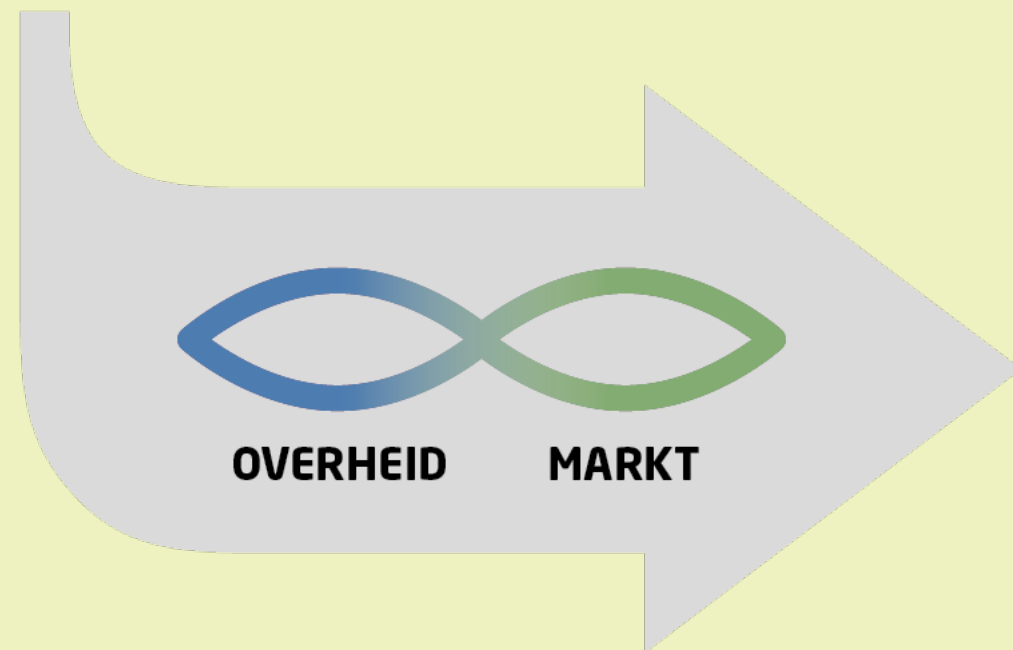
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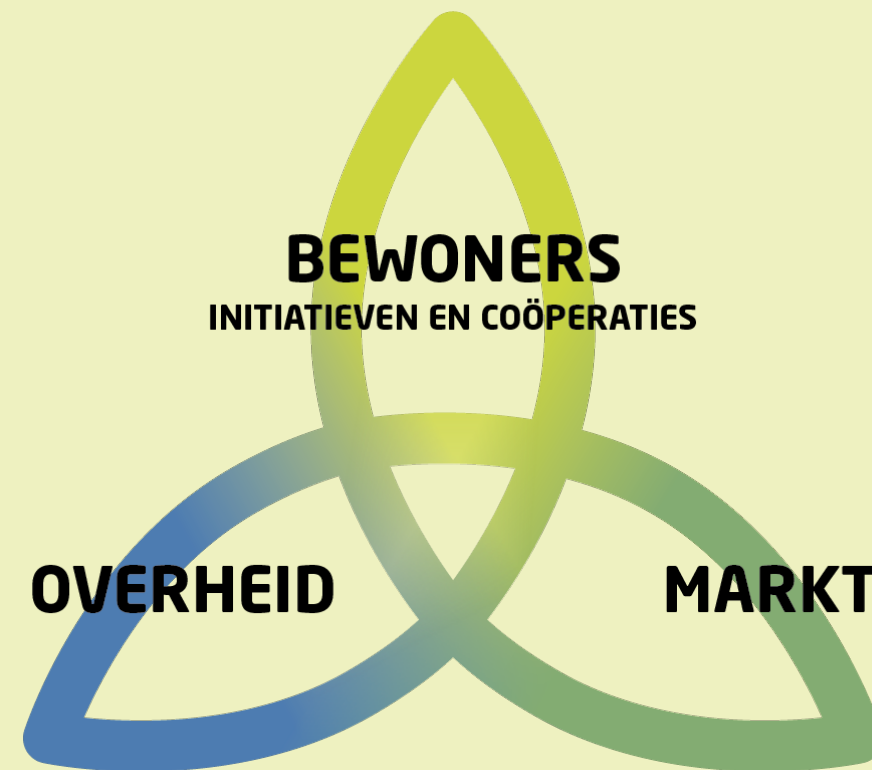


# Both governments and markets fail to get home owners into action



- Governments take political risks if they push too hard
  - Home owners are treated as voters
  - Governments are reluctant to oblige home owners
  - Property rights of home owners need to be respected
- 
- Markets don't have an attractive offer
  - Home owners are treated as customers
  - Markets find it difficult to convince home owners
  - Markets have no experience with coproduction or cocreation with customers

# Co-creation can accelerate the heating transition

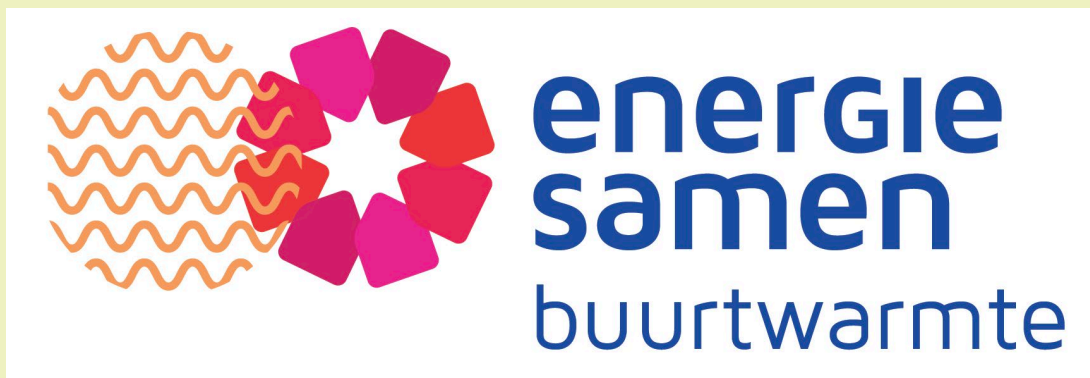


Home owners are empowered to organise themselves to find solutions for the natural gas phase-out and to develop, construct and exploit district heating networks

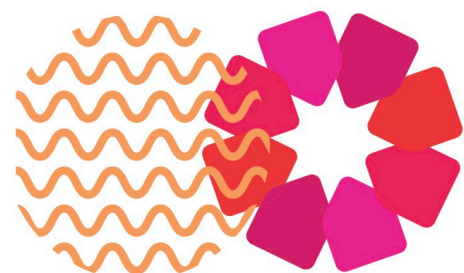
This requires space for self-organisation:

- Moral space
- Administrative space
- Financial space
- Political space

**Co-creation  
implies change of  
the role of  
residents: they  
organise  
themselves**

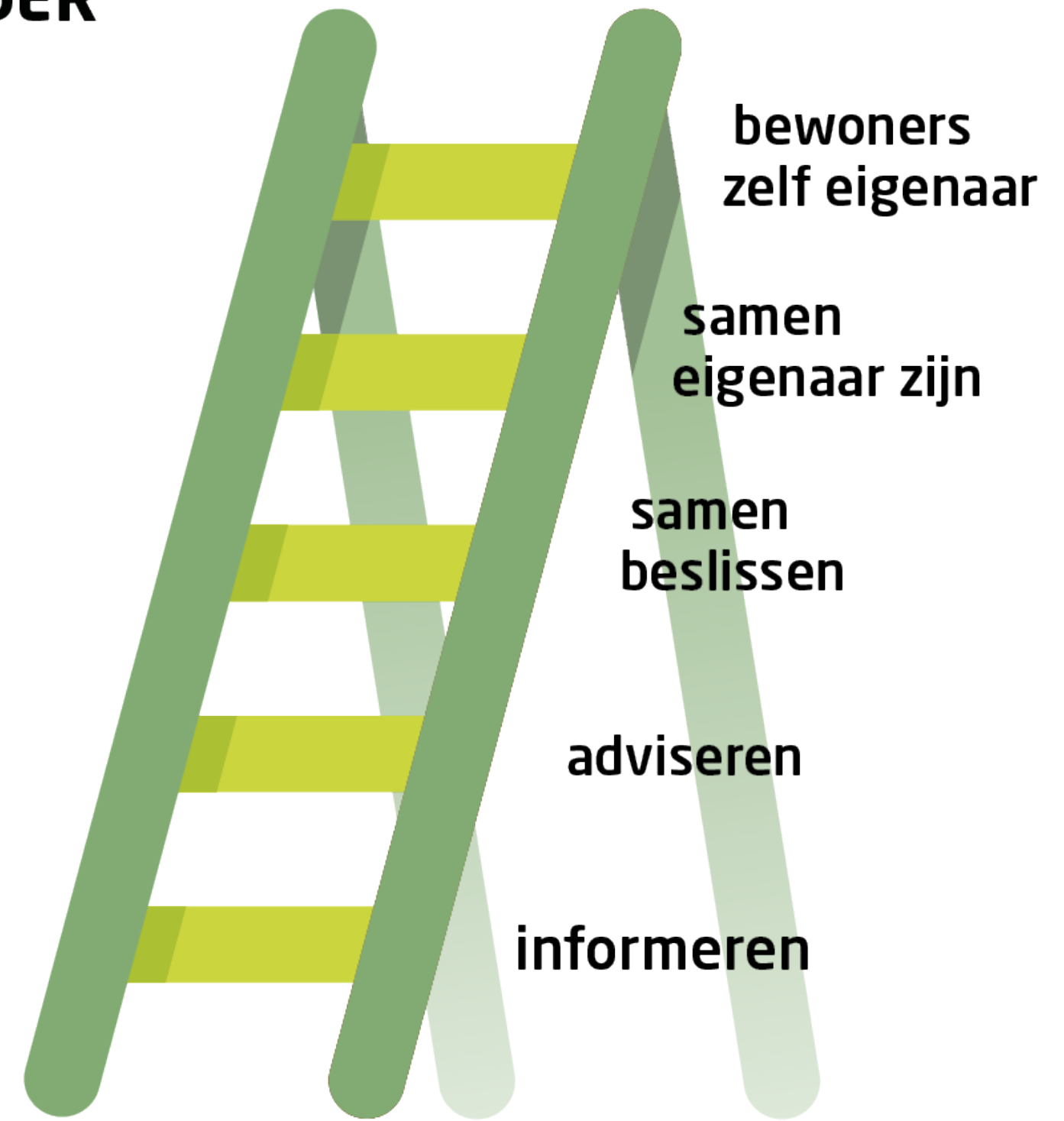


**Local communities  
define themselves  
in relation to  
governments (&  
markets)**



**energie  
samen**  
buurtwarmte

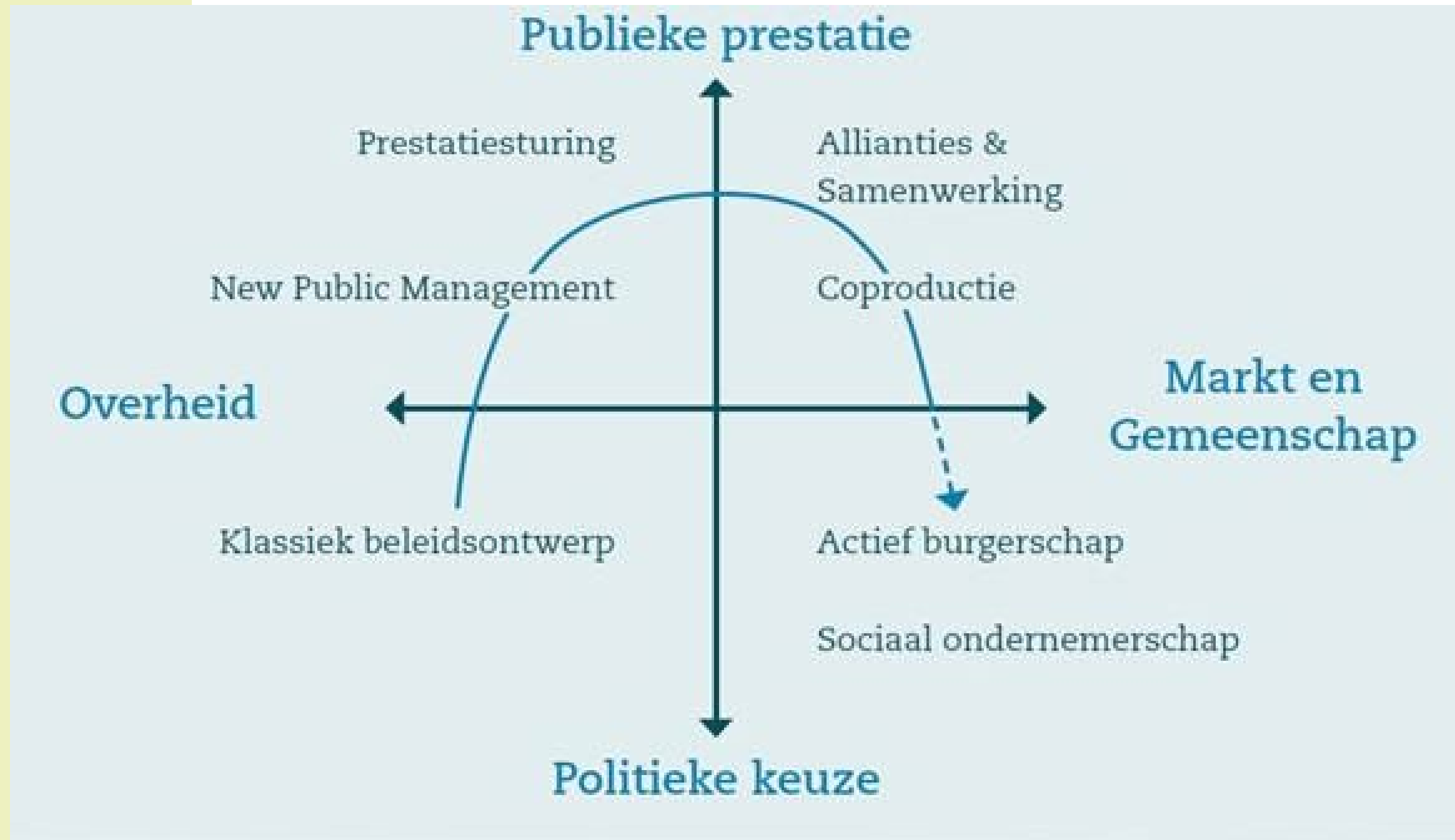
## **PARTICIPATIE LADDER**



**ENERGIE  
SAMEN**

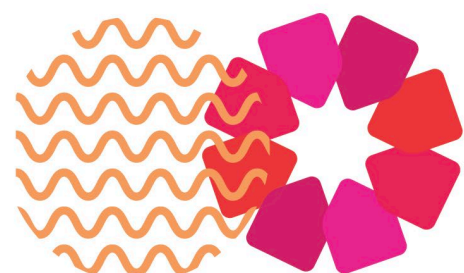
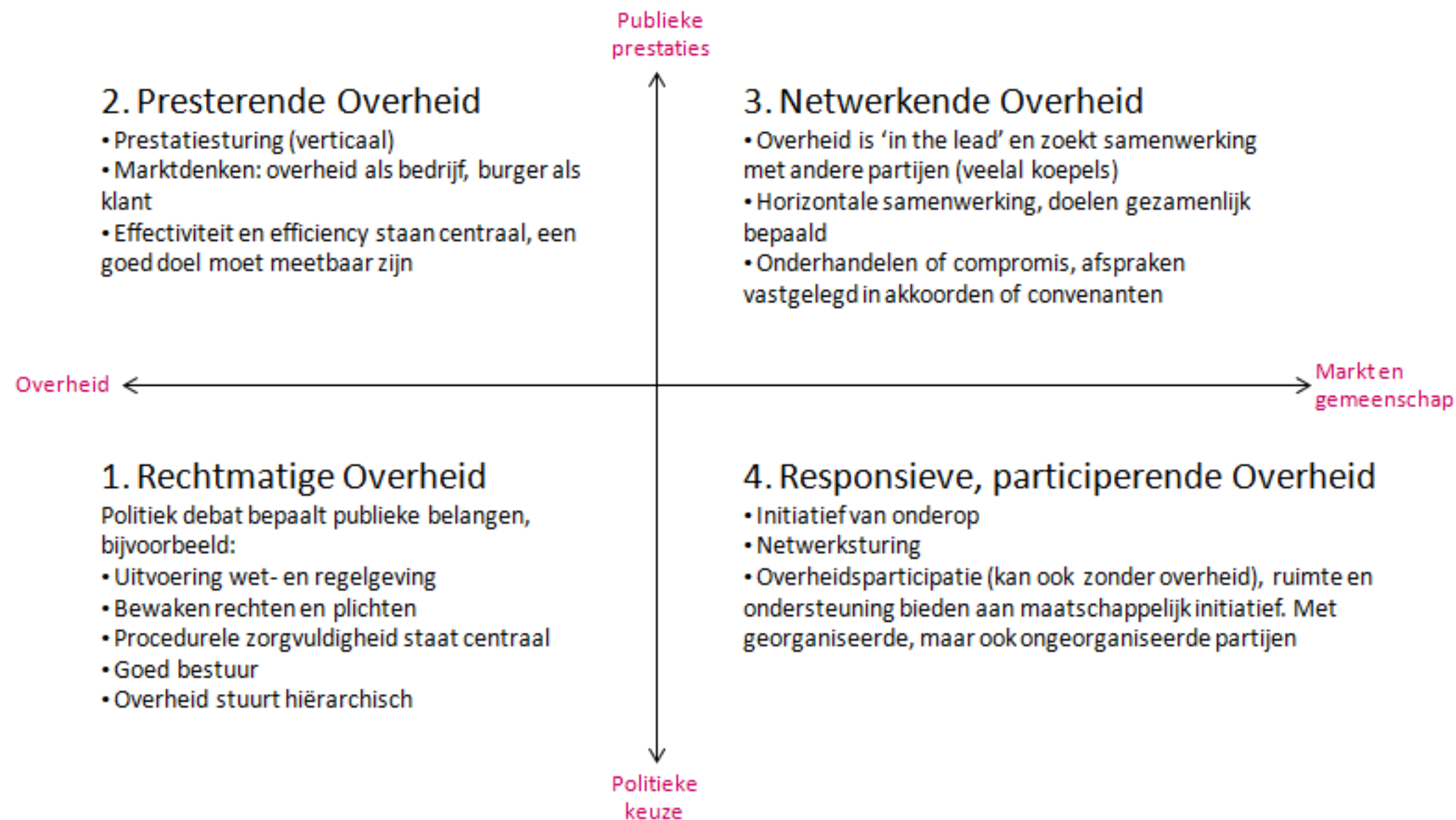


# Co-creation implies change in the role of the government



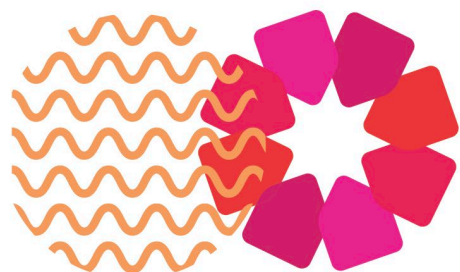
# The government is learning to be responsive....

Rollen van de overheid in de samenwerking met de energieke samenleving:



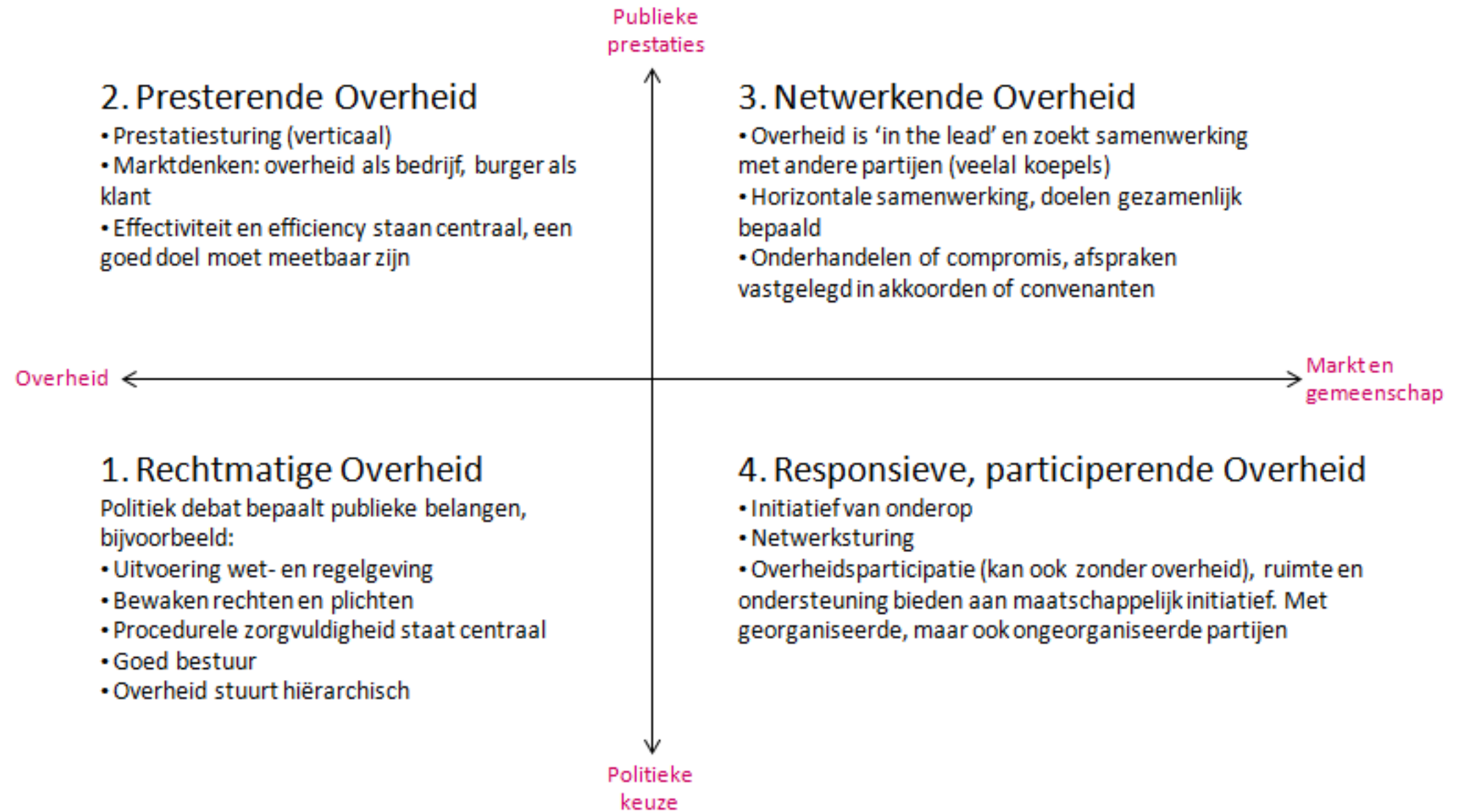
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samen**  
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# ..while trying to balance 4 legitimate roles



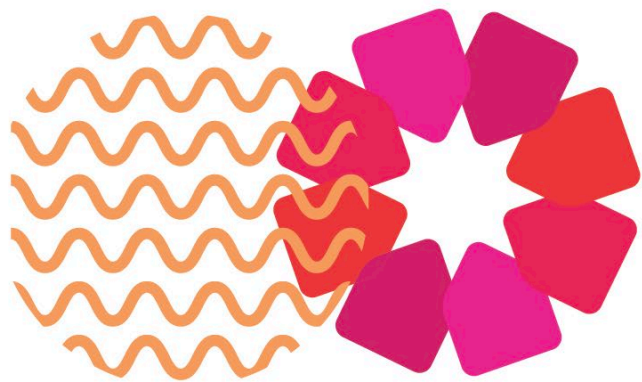
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## Rollen van de overheid in de samenwerking met de energieke samenleving:



# Energie Samen Buurtwarmte

- A shared service from energy cooperatives for initiatives of residents in the natural gas phase-out
- A service in the neighbourhood process from the start to exploitation of a district heating network
- Supports the access to financing for a heating project



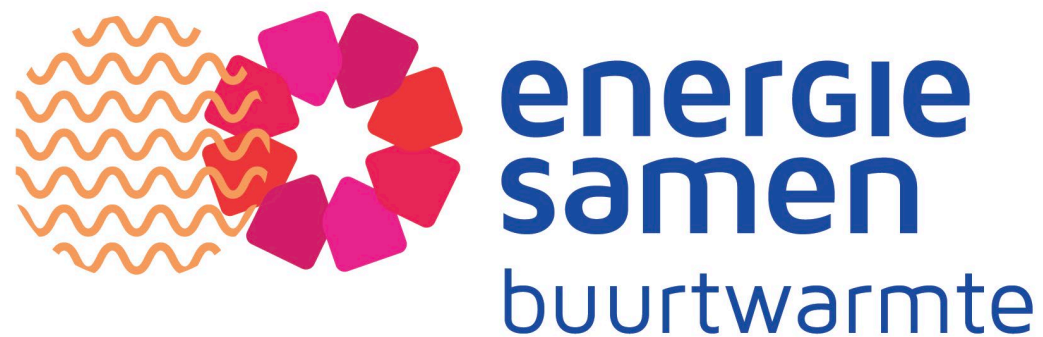
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samen**  
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# Empowerment of self organisation of residents in district heating

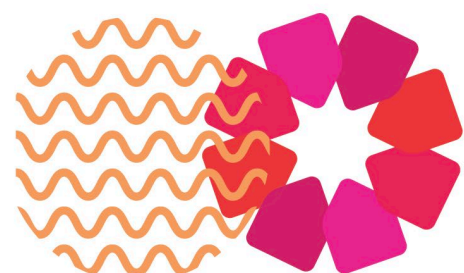
The neighbourhood process consist of:

- Community building
- Business case and technical design
- Stakeholder management
- Organisation development



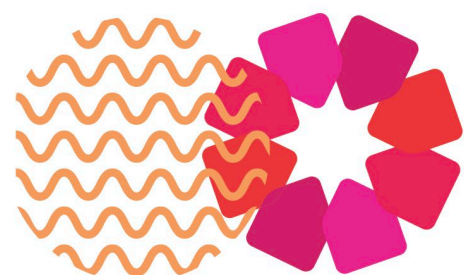
# Neighbourhood process: 4 phases 12 steps

INITIATIE	ONTWIKKELING	BOUW	EXPLOITATIE
<b>1</b> Vorbereiding <i>Plan van Aanpak</i>	<b>4</b> Ontwerp <i>Conceptontwerp</i>	<b>7</b> Contractering <i>Opdracht</i>	<b>10</b> Onderhoud <i>Meerjaren Onderhoudsplan</i>
<b>2</b> Coalitievorming <i>Intentie- overeenkomst</i>	<b>5</b> Uitwerking <i>Uitvoeringsplan</i>	<b>8</b> Uitvoering <i>Opgeleverd 'vastgoed'</i>	<b>11</b> Optimalisatie <i>Verbeterplan op basis van data-analyse</i>
<b>3</b> Definitie <i>Buurtenergieplan</i>	<b>6</b> Aanbesteding <i>Aanbestedings- document</i>	<b>9</b> Nazorg <i>Goed functionerend 'vastgoed'</i>	<b>12</b> Vervanging <i>Vervangingsplan</i>



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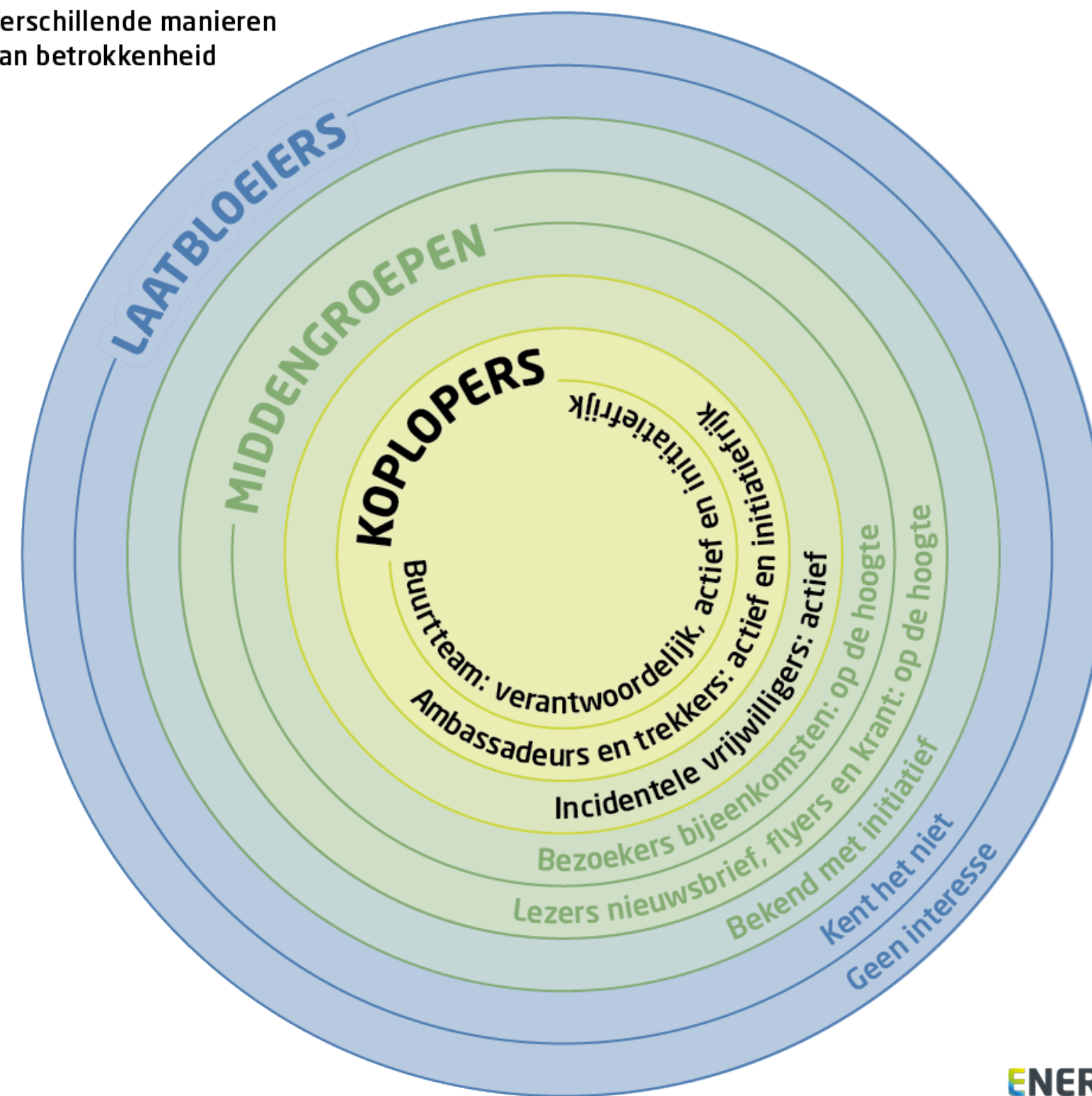
# Community development



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## OPBOUW NETWERK

Verschillende manieren  
van betrokkenheid





# Contact

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