
NEW ENERGY FOR ROTTERDAM

27-06-2018

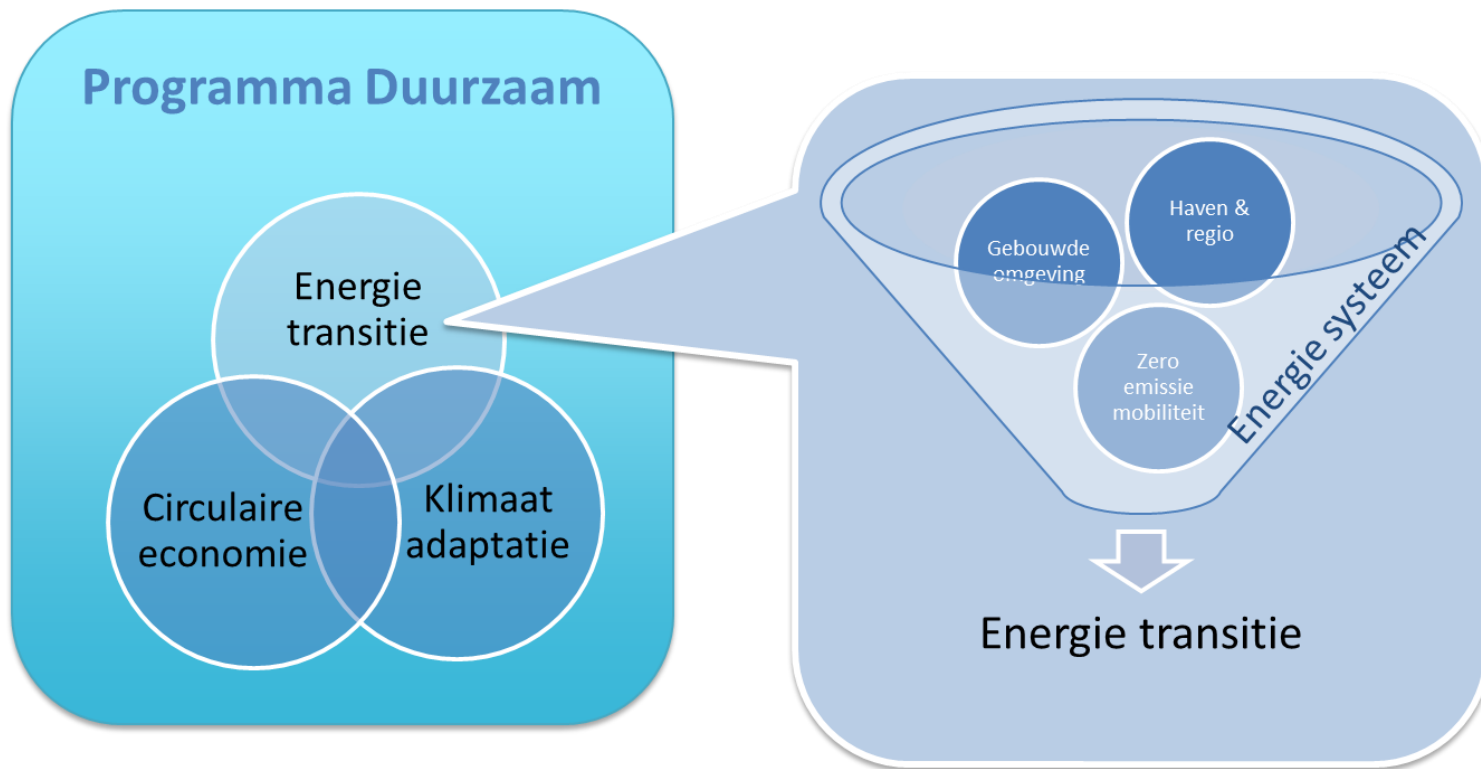
Asmae Belhirsch
City of Rotterdam

**ROTTERDAM.
MAKE IT
HAPPEN.**

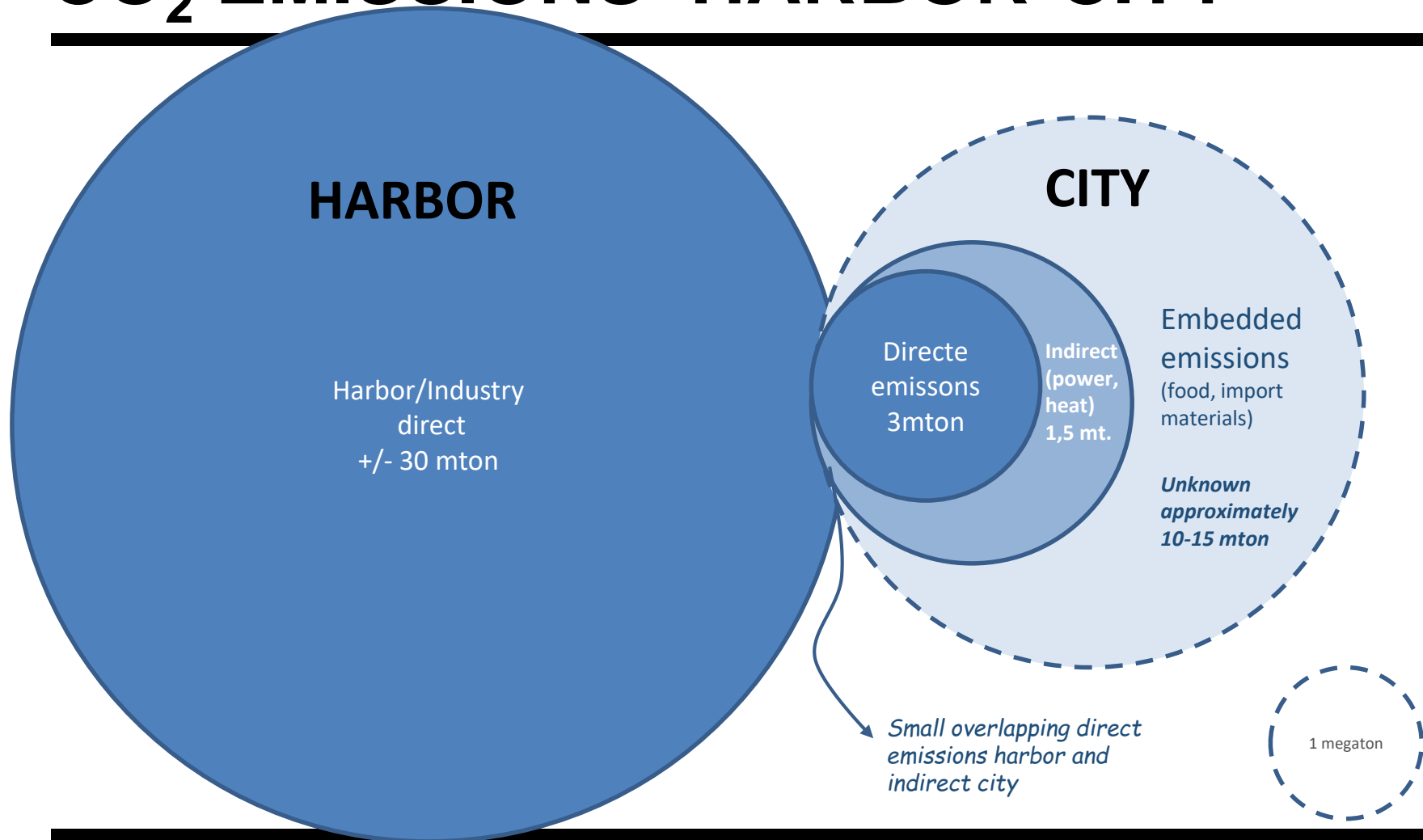


Gemeente Rotterdam

CONTEXT & SCOPE

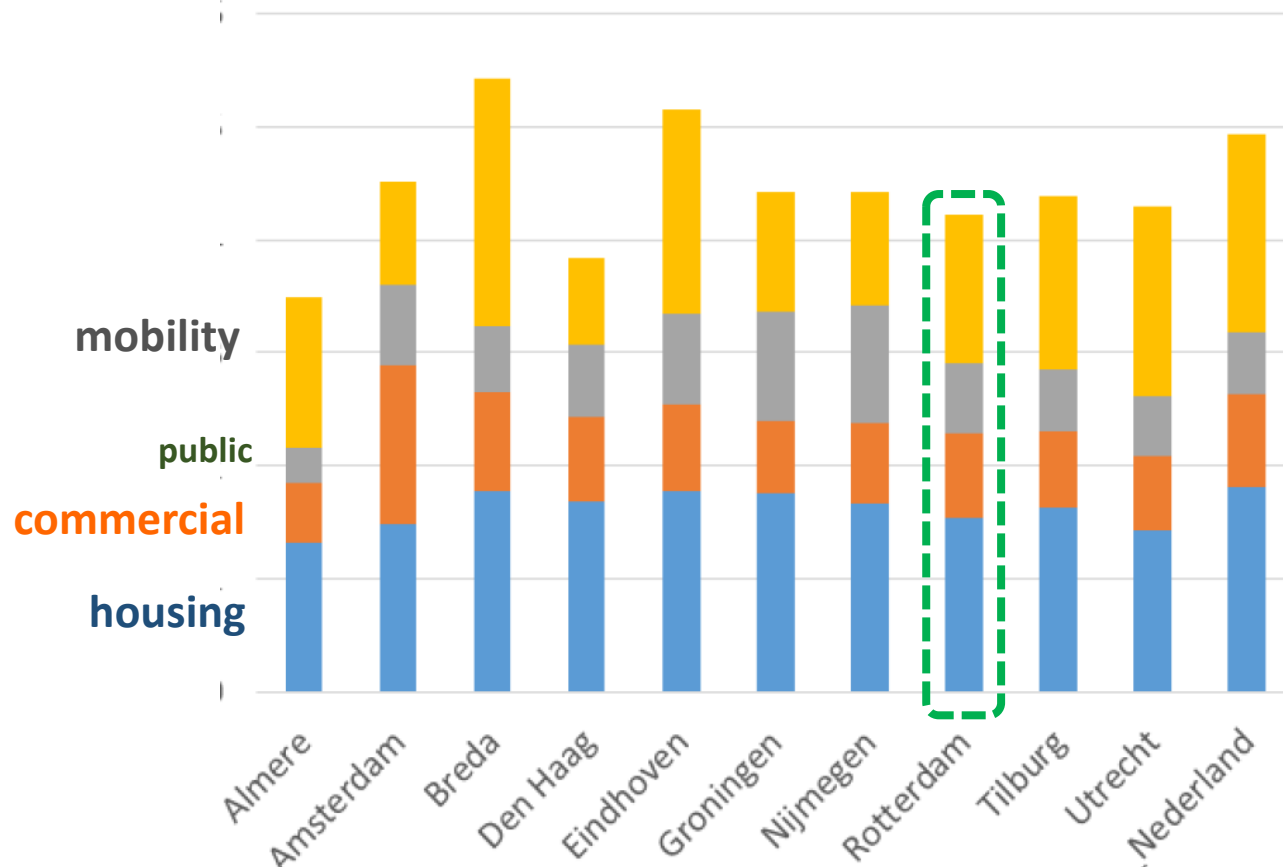


CO₂ EMISSIONS HARBOR-CITY



CO₂ EMISSION IN THE CITY

- Relatively low income
- Compact city
- Low energy-efficiency
- Residual heat

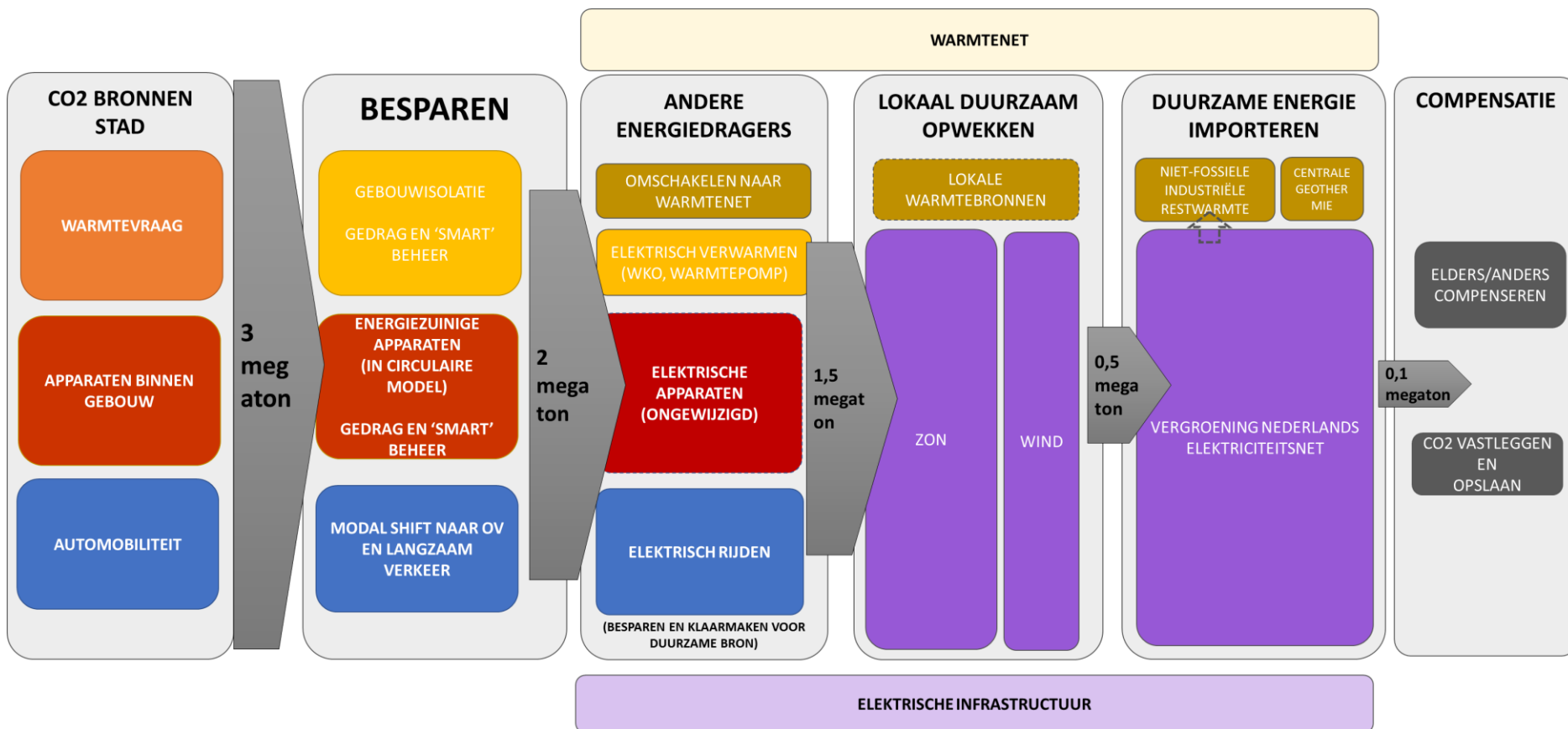


GOAL & OPPORTUNITY'S

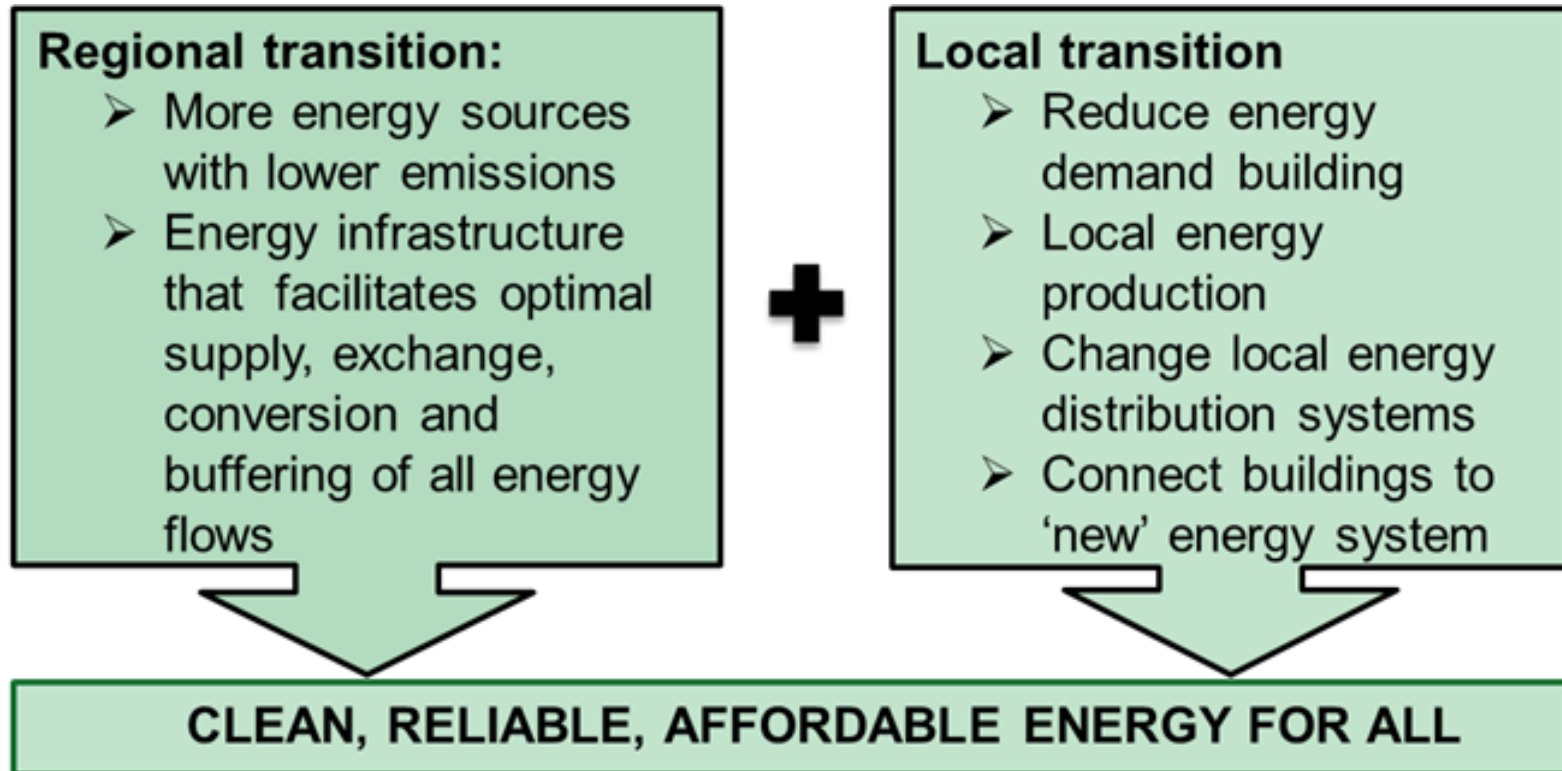
Clean, safe, reliable and affordable energy supply for everyone in 2050



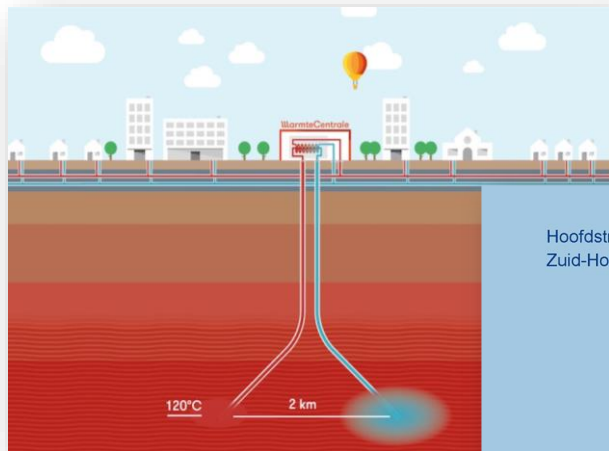
ACTIEPLAN



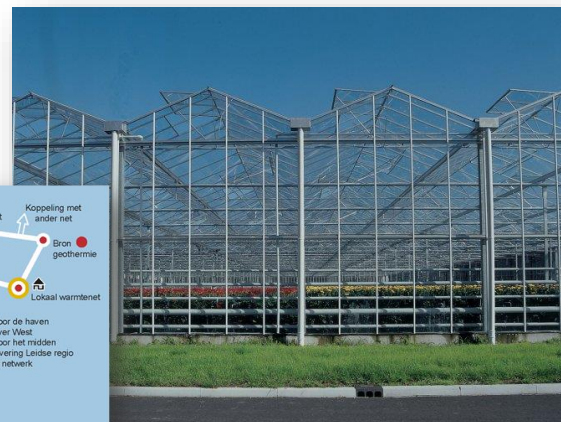
TWO LEVEL APPROACH



REGIONAL SUPPLY - DEMAND

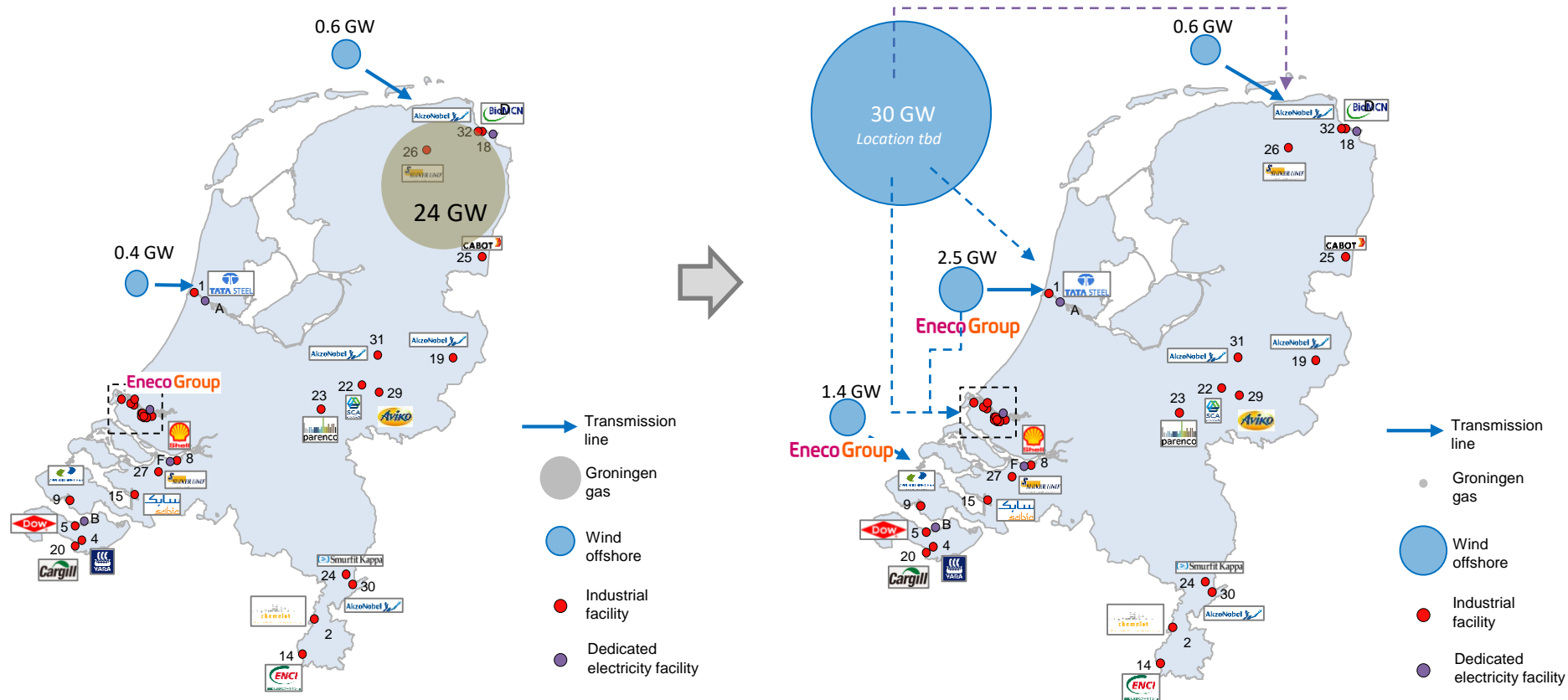


Hoofdstructuur voor warmte Zuid-Holland



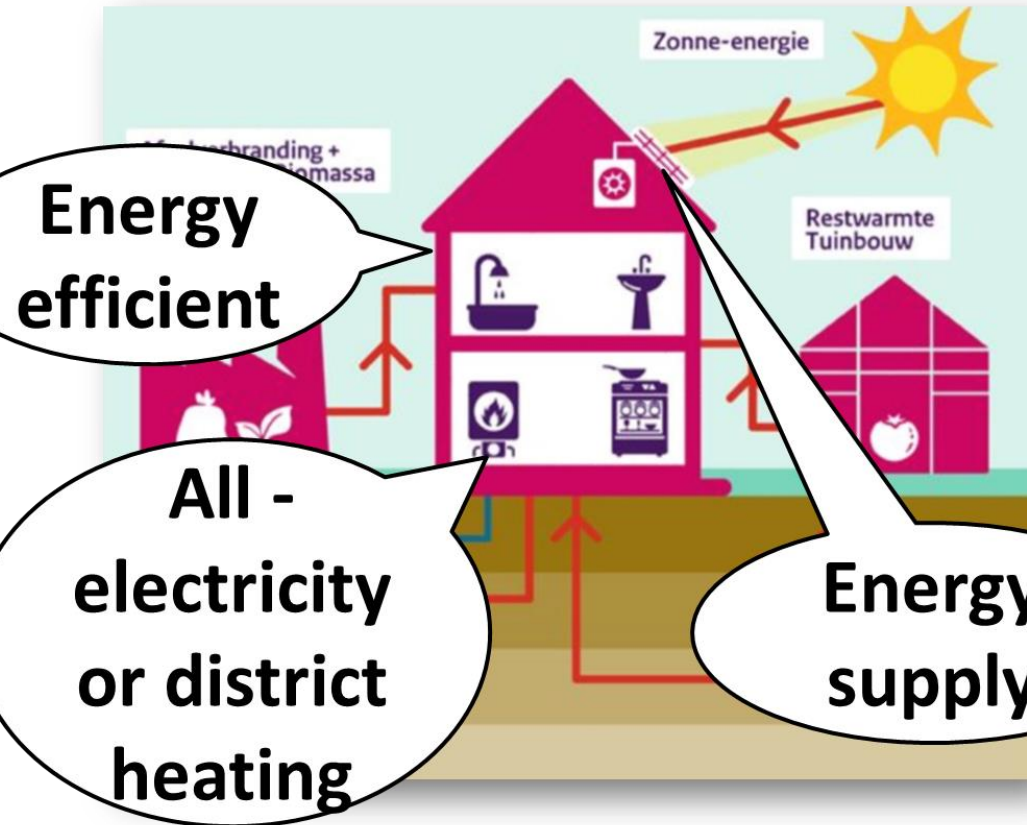
ROTTERDAM.
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WIND (OFFSHORE): 'THE NEW GAS'



SOURCE: PRTR Netherlands, National Inventory Report 2016

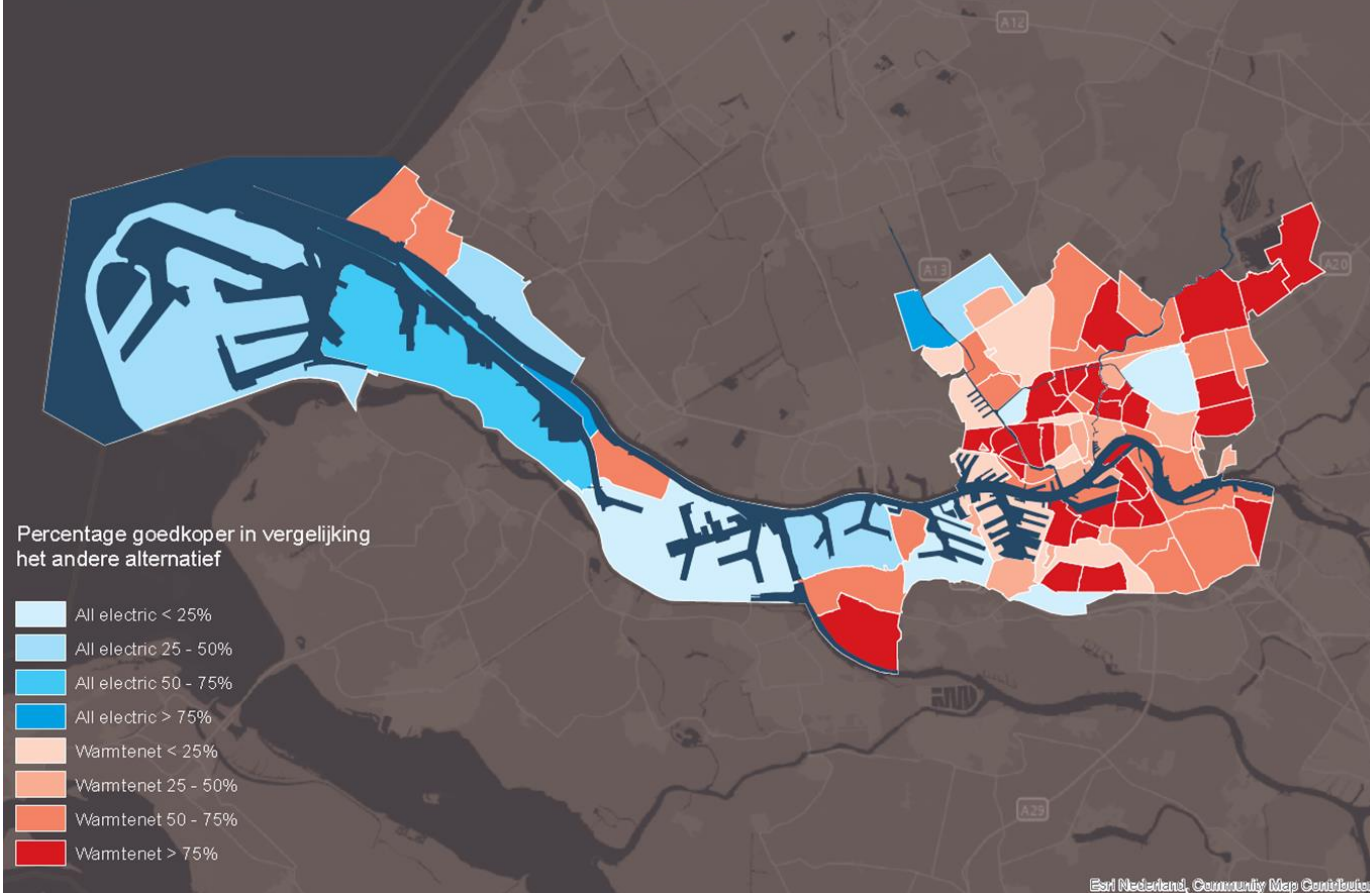
LOCAL TRANSITION



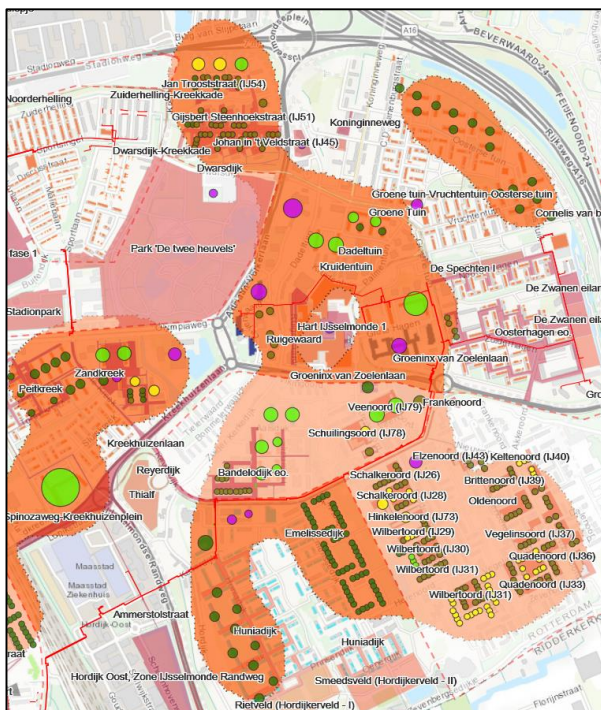
- **WHAT** – what combination of measures is where economically most optimal?
- **WHEN** – when is the most optimal moment in time to start the transformation?
- **HOW** – how can we optimise the transformation and cash in on opportunities?

WHAT: LOW COST SOLUTIONS

Het goedkoopste alternatief voor aardgas op buurtniveau voor bestaande bouw



WHEN: SELECTION CRITERIA



- High density of heat demand, potency islands

Technique



- Gas replacement / renovation

Investments natural gas



- Maintenance sewerage system
- Renovation public space

Investments underground and public space



- Renovation social housing

Investment social housing



- Difference between all electric solution and district heating

Economic robustness



- Social projects
- New developments

others

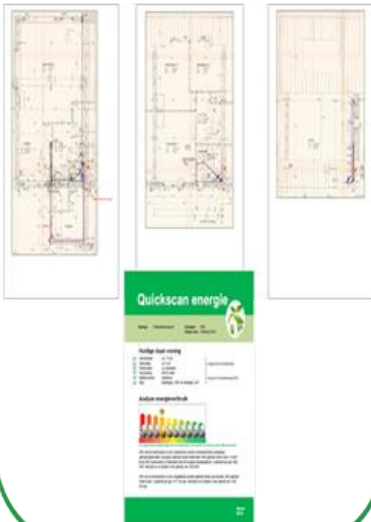


HOW: DISTRICT ORIENTED AGREEMENT



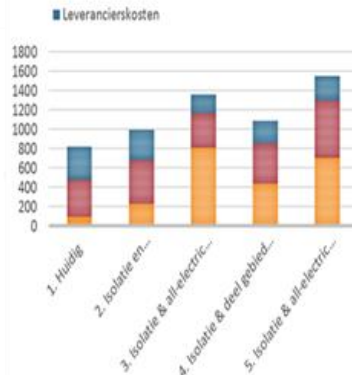
Technique

What is possible? And needed?



Financial

What are the total costs of the scenarios?



Social

What do people think?
What do people want?

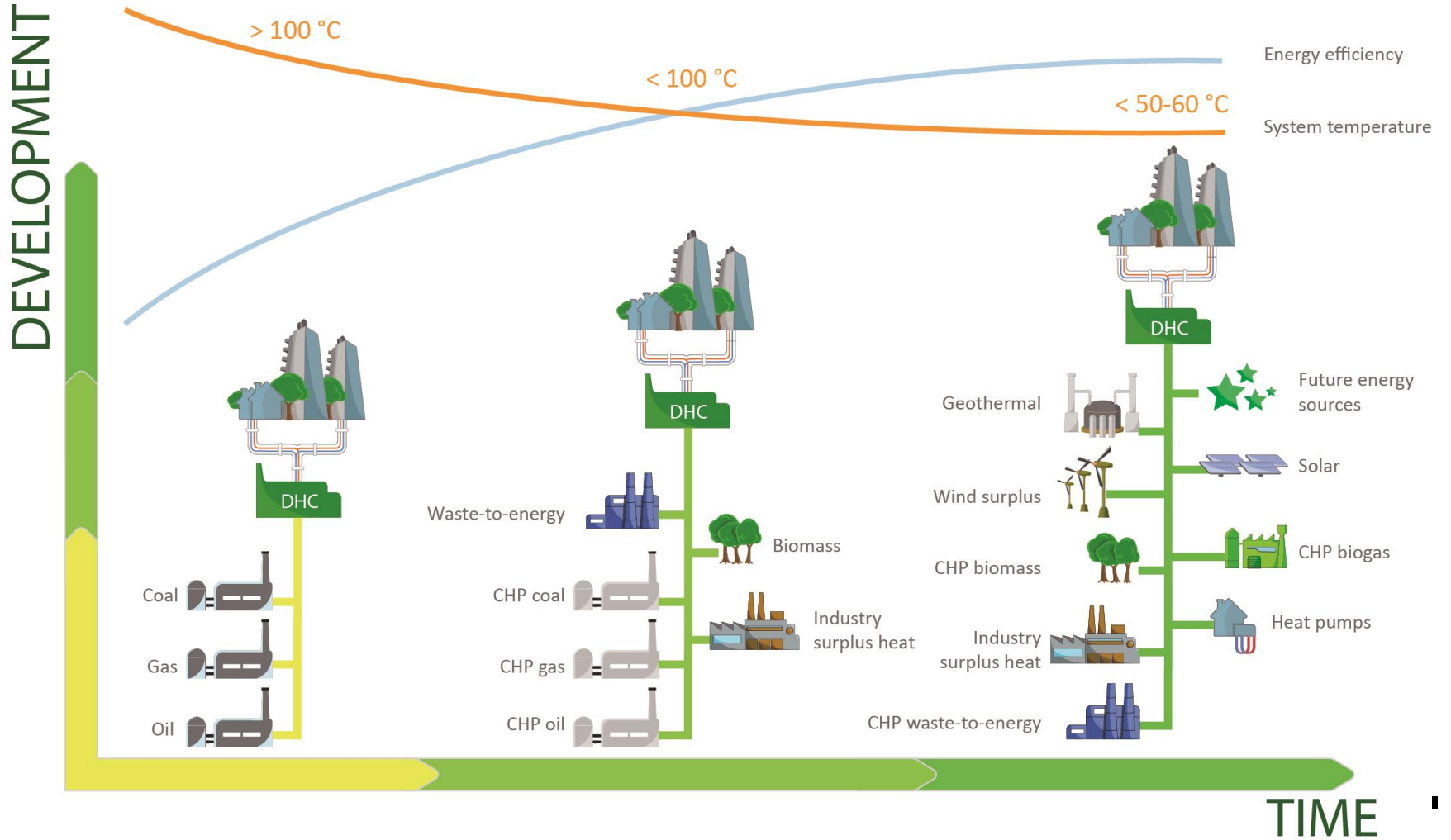


Opportunity

How to make transition easier and add value?



OPTIMALISATION



PRECONDITIONS

- Energy system has to transform to low emission sources
- Everybody participates and are willing to:
 - distribute all cost & benefits
 - cash in on opportunities
- Willingness to rethink and change governance and financing of (new) energy system

2018-2022: NIEUWE ENERGIE ...



Nieuwe energie voor Rotterdam

Auteurs
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Charlie Spink
Sophie Buchel
Derk Loorbach

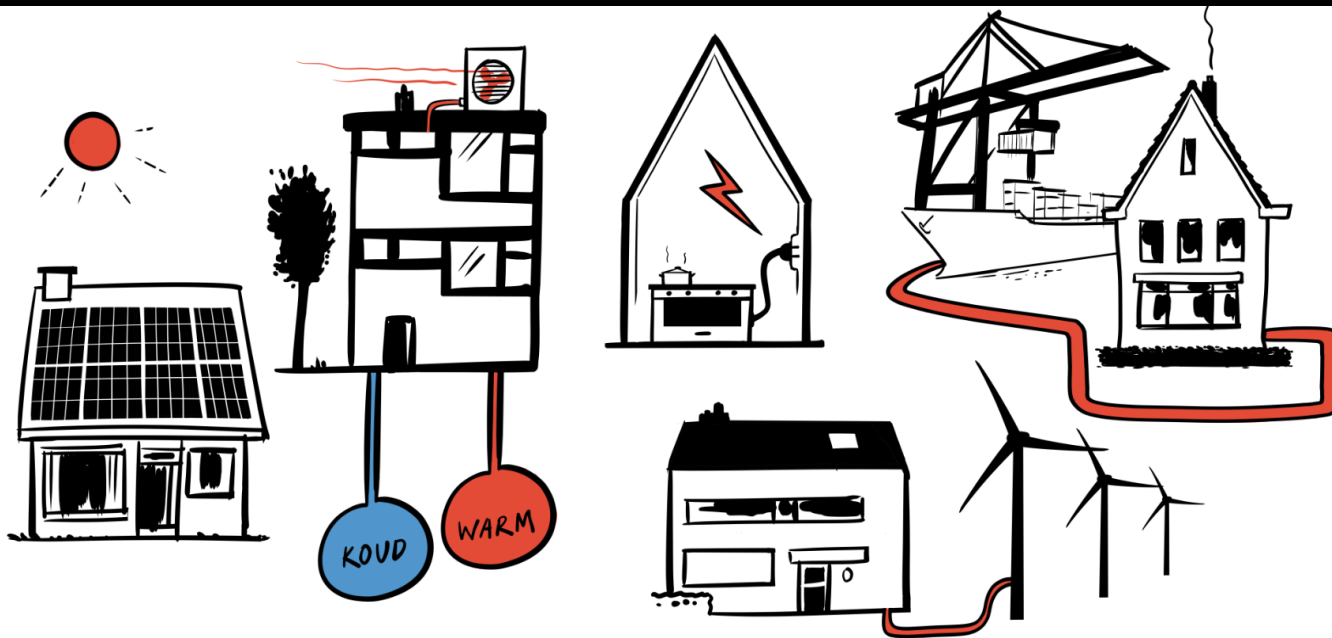
met bijdragen van
Frank van Steenberg
Kevin Vervuurt (ARUP)

drift for transition



Nieuwe energie voor Rotterdam

Coalitieakkoord
2018 - 2022



MAKE IT HAPPEN.

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