

Governing Urban Sustainability Transitions

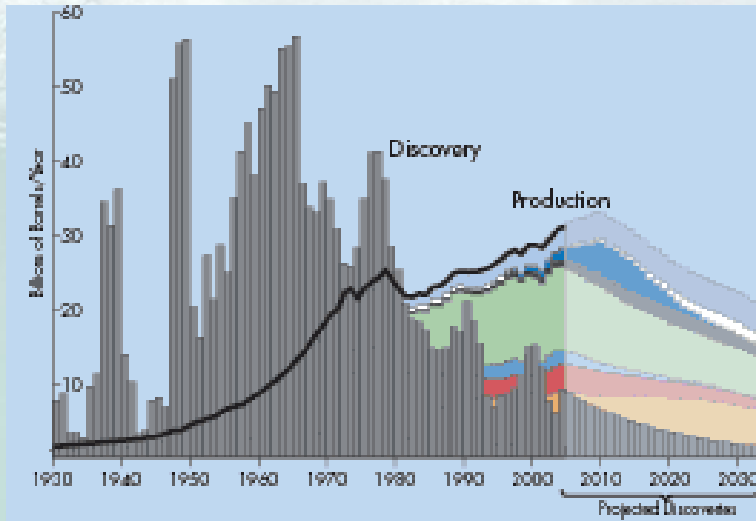


Dutch Research Institute for Transitions

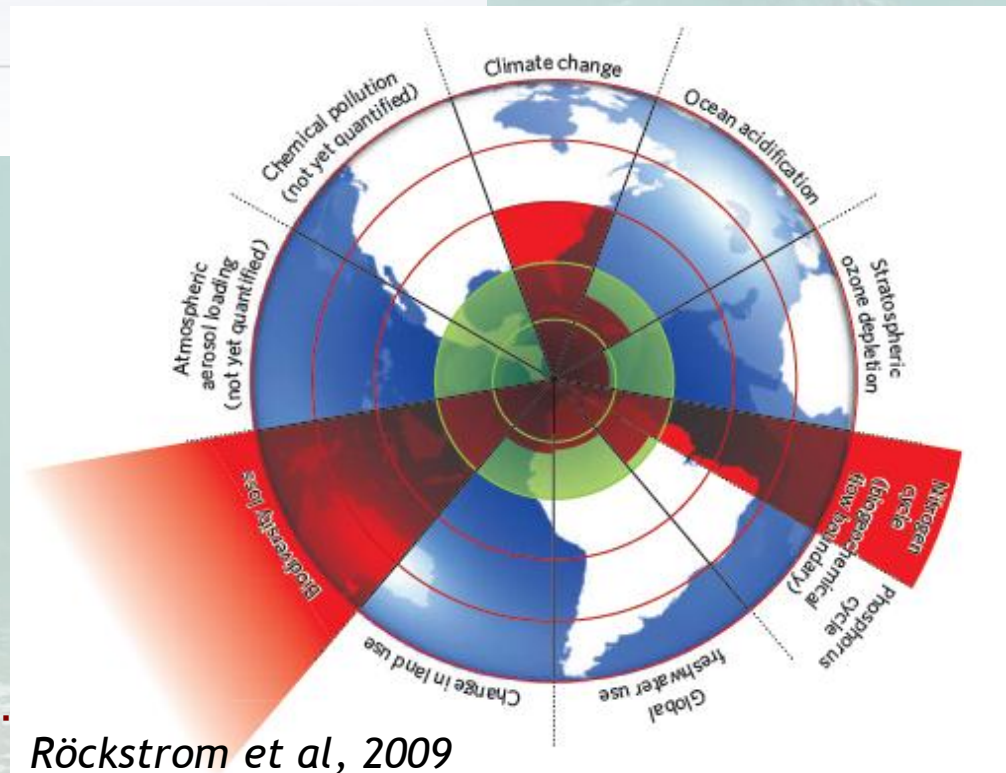
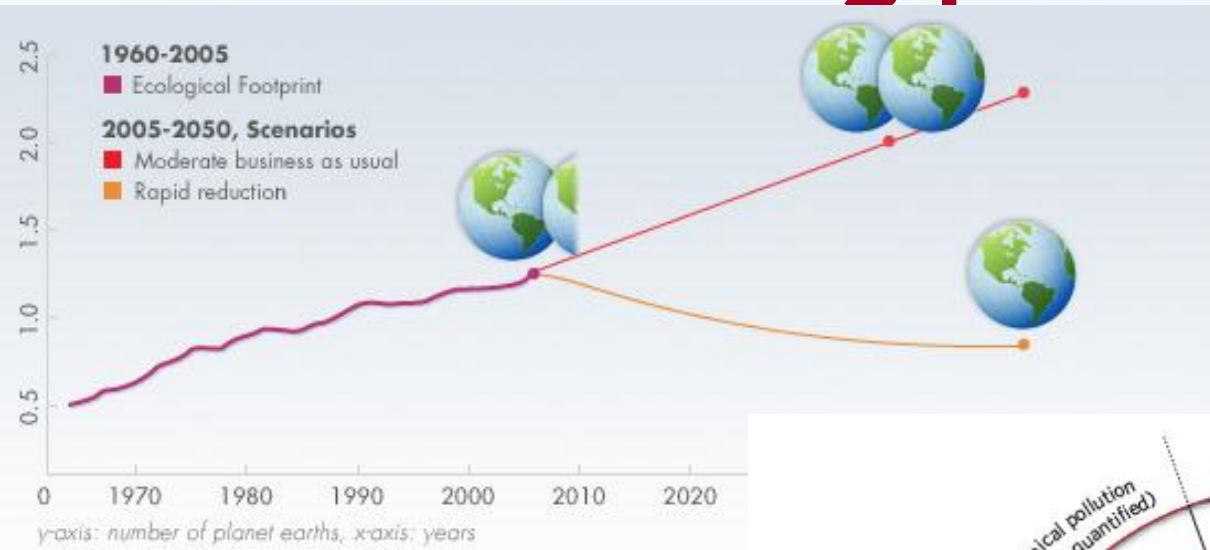
Derk Loorbach

Tokyo University, 02-03-2012

Persistent unsustainability



The big picture



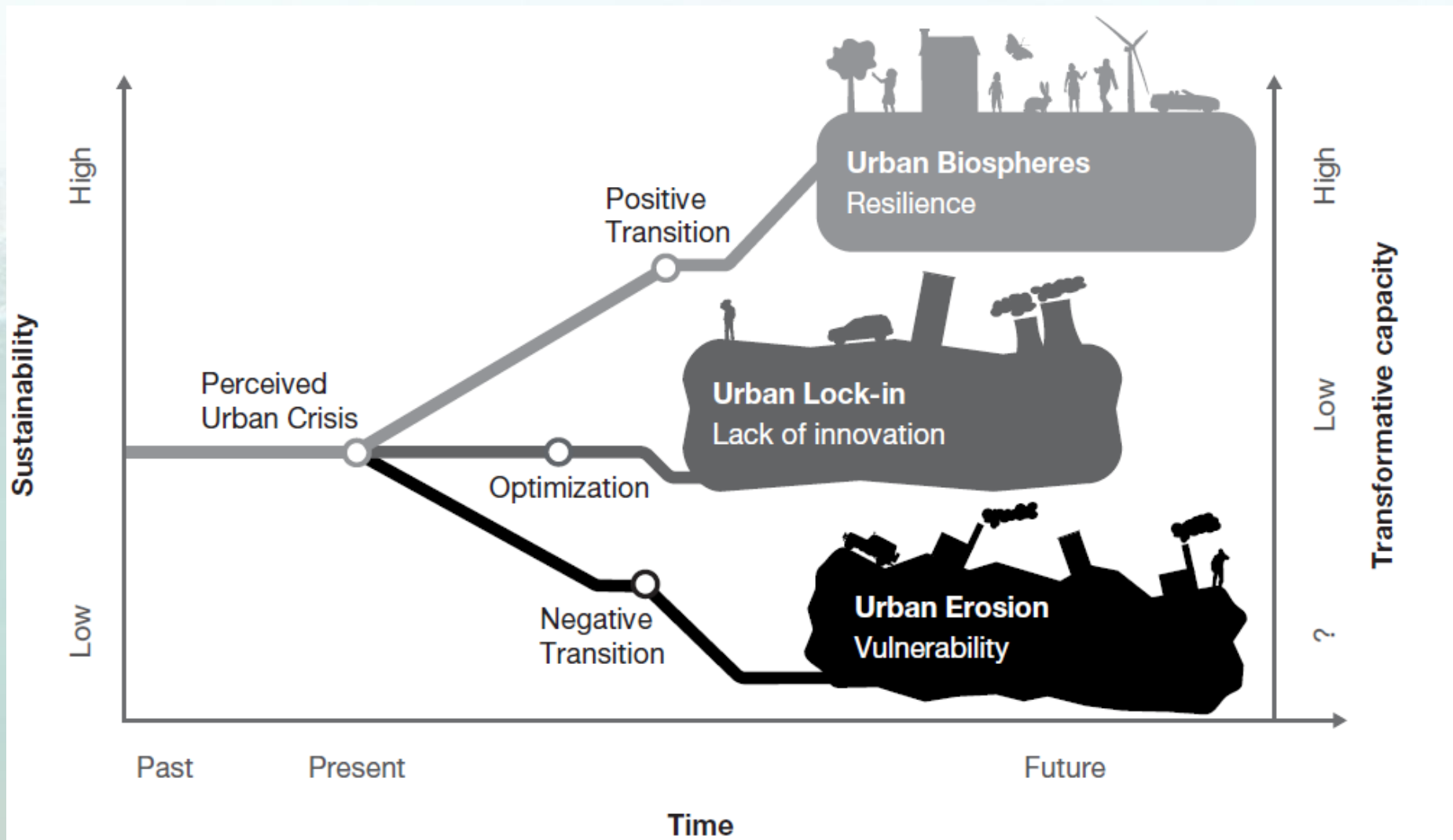
Röckstrom et al, 2009

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Persistent urban sustainability problems

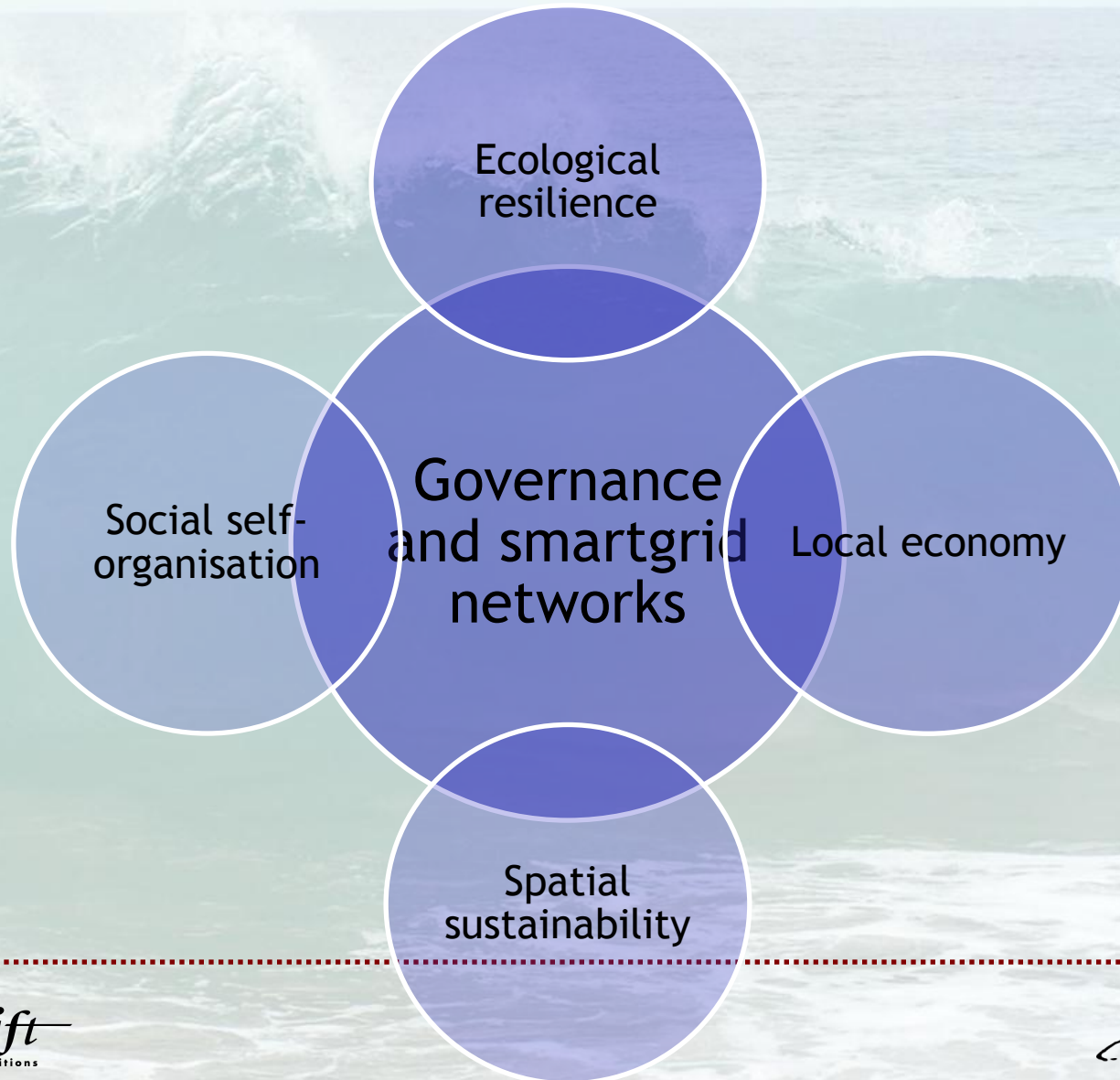
- Cities are complex, path-dependent, self-organising entities
 - Very difficult to give long-term direction
- Many autonomous external pressures
 - Ageing, urbanisation, energy/resources, economic crises, ...
- Cities increasingly vulnerable and less resilient
 - Existing structures, behavior, interests hard to change

→ *Unsustainability lock-in requires transitions*



Source: Stockholm Resilience Center and DRIFT, 2010

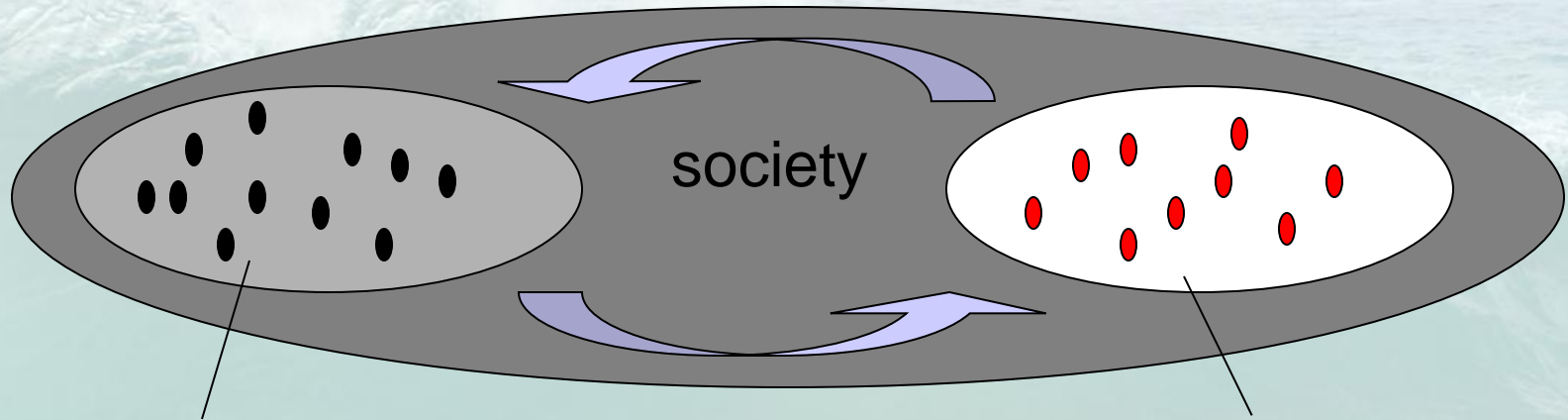
Resilient cities



Urban resilience: a transition challenge

- Social: resilient, self-sustaining communities and social services, social cohesion and equity,
 - Ecology: urban biosphere, closed resource cycles, natural watersystems, multiple space-use, renewable energies
 - Economy: ecosystem services, local economy, internalisation of externalities
 - Governance: organized self-organisation
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Transition arenas



Regular policy arena

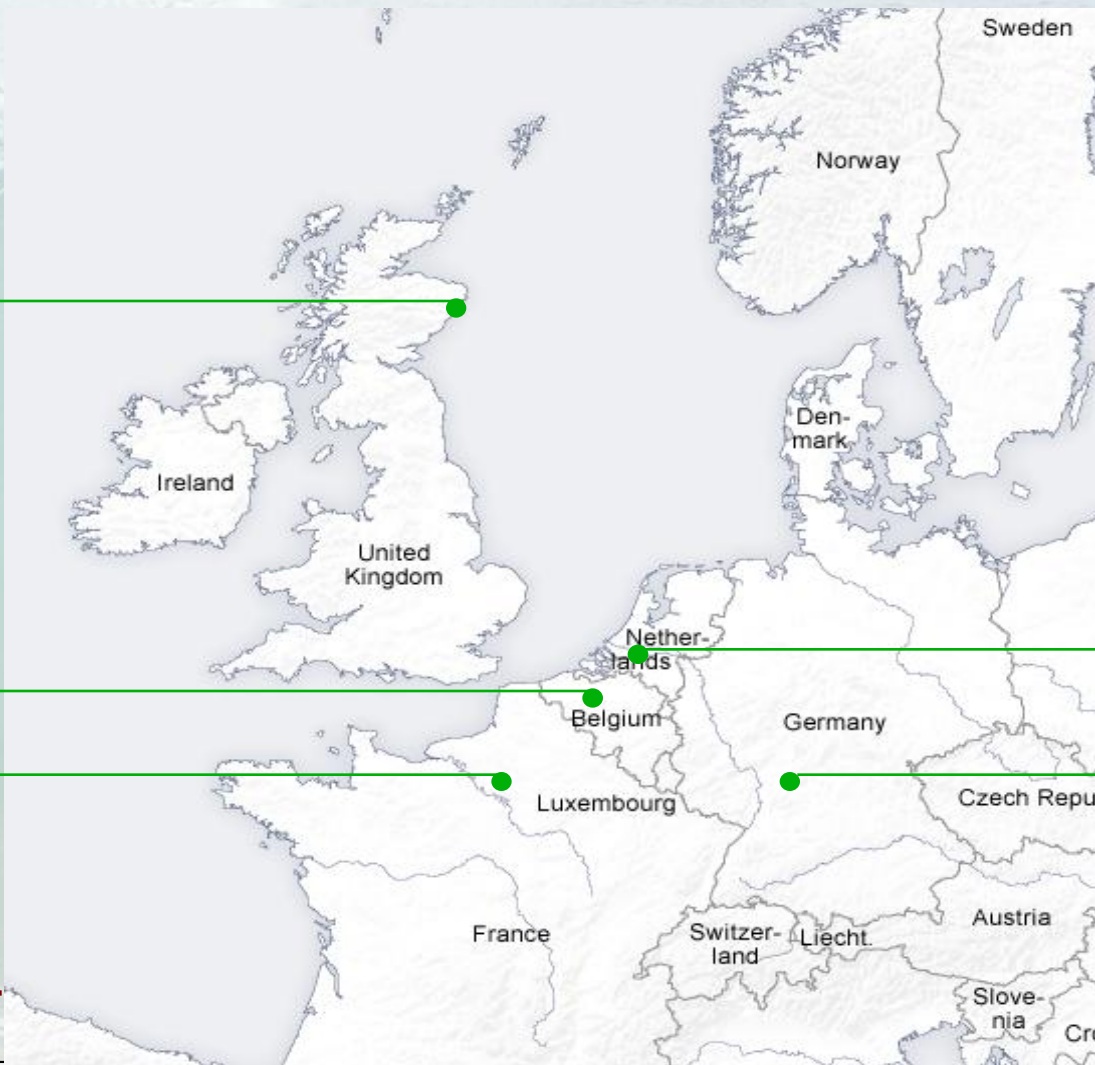
- *Short term*
- *Peloton*
- *Incremental change*
- *Problem- and goal oriented*

Transition arena

- *Long term*
- *Frontrunners*
- *System-innovation*
- *Problem- and goal searching*

MUSIC project

www.themusicproject.eu



Aberdeen
(United Kingdom)

Ghent
(Belgium)

Montreuil
(France)

Rotterdam
(The Netherlands)

Ludwigsburg
(Germany)

Transition approach

Process

Content

Transition team

Experts/civil servants

Transition arena

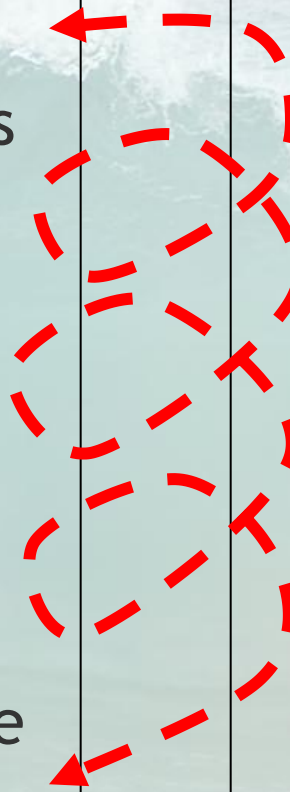
Frontrunners

Transition network

Organisations

Coalitions

Entrepreneurs/change agents



Transition analysis

Framing the transition

Envisioning

Inspiring challenge

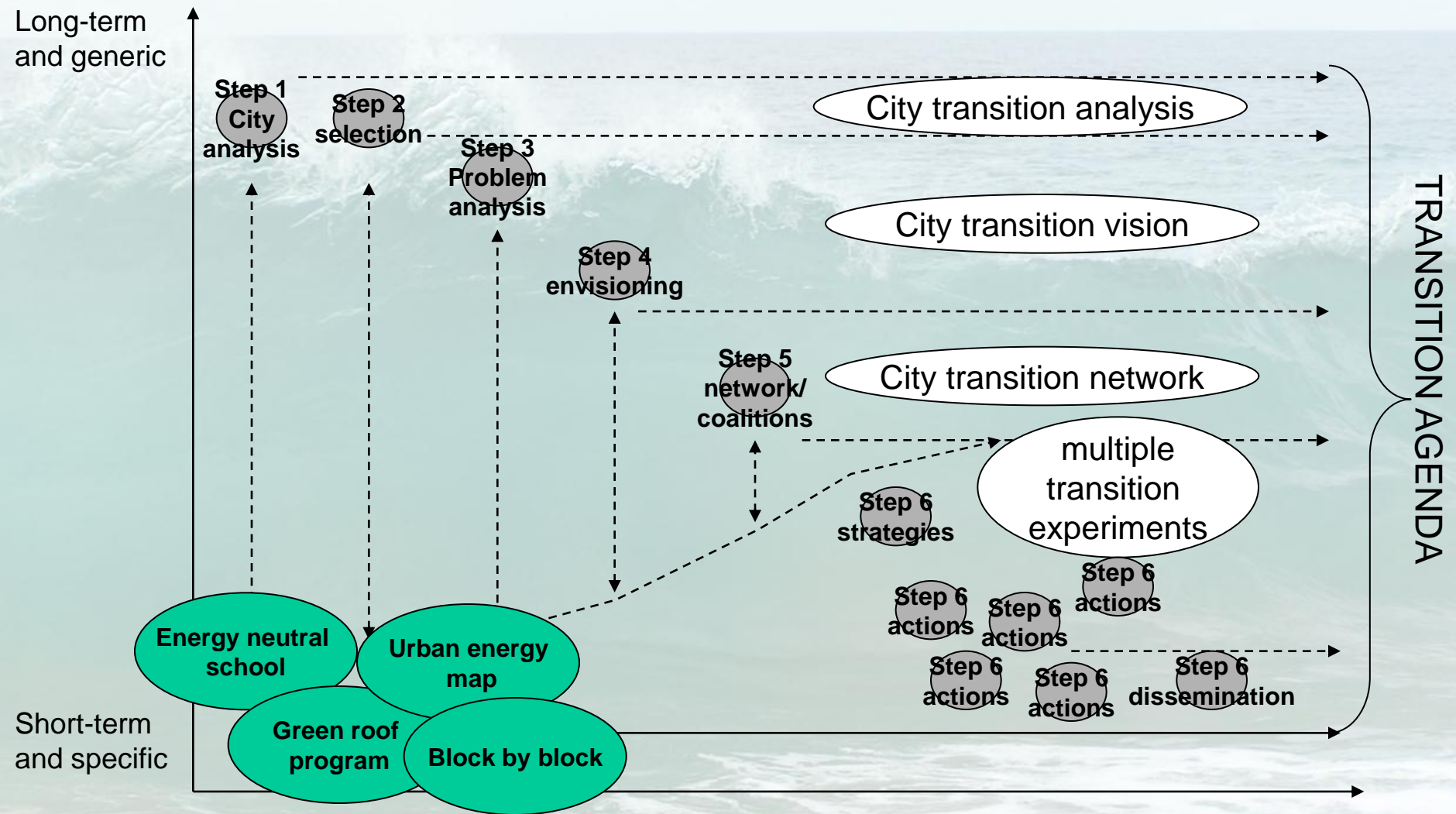
Agenda building

Multiple pathways

Experiments

Upscaling innovations

Iteration between vision/arena and experiments



Start project

Time

2050

Waarom
**Riet
Vandevelde**
een
**Gentse
heldin**
wordt



EEN
TOEKOMST
VOOR
GENT

"Het wordt tijd dat
je de wereld gaat
redden mama."

2050



Vooruit met die
transitie!

Waarom
**Debbie
en Sara**
**Gentse
heldinnen**
worden

EEN
TOEKOMST
VOOR
GENT

2050

Waarom
**Willy
Verstraete**
een
**Gentse
held**
wordt



EEN
TOEKOMST
VOOR

2050

Waarom
**Peter
Garré**
een
**Gentse
held**
wordt



EEN
TOEKOMST
VOOR
GENT

'Transitie is een
business-case'

Waarom
**Jan
Naert**
een
**Gentse
held**
wordt



EEN
TOEKOMST
VOOR
GENT

'Transitie zal pas
compleet zijn als ze
iedereen bereikt.'

Rotterdam: energy based spatial planning

Worldwide energy and climate initiatives

CO2 reduction

From a list of solutions to an integrated spatial strategy

Sustainable City	Sust. Mobility	Energizing City	Innovation Lab	Energy Port
<p>city -50%</p> <ul style="list-style-type: none"> •deals with corporations •Public lighting •Compulsory use of district heating •Fiscal incentives •Local laws 	<p>mobility -50%</p> <ul style="list-style-type: none"> •public transport, cycling •Renewable energy •Parking fees • vehicles and ships •Environmental zoning freight: city and harbour 	<p>behaviour</p> <ul style="list-style-type: none"> •All public vehicles co2 free •All public buildings co2 free •Campagne •Incentives •3% per year •banks 	<p>strengthen innovative economy</p> <ul style="list-style-type: none"> •innovation fund •Knowledge cluster of new techniques •Research connections with universities to implement •Happy shrimp farm 	<p>harbour -50%</p> <ul style="list-style-type: none"> •Carbon captivity storage •Deals with companies to filter •Biofuel •CO2 to greenhouses •Quai electricity

CityPorts

5 strategies

1. Re-inventing delta technology
2. Volume & Value
3. Crossing borders
4. Floating gentrification
5. Sustainable mobility

Long term: *perspective 2040*

Mid term: *course 2025*

Short term: *action 2015*

One of the images: Floating City

(Design: www.deltasync.nl)



...the transition experiment





Societal resilience and transition

- Context: withdrawing government, budget cuts
 - Social: developing local community based services; energy, food, mobility, education, health-care
 - Technical: developing smart 'gridworks'; data-based infrastructures and appliances
- Communityarena: frontrunners develop shared vision and strategy
 - citizens, science, policy, business, organisations
- Focus on empowerment and competence-building
 - In families, school, public space and networks



Core transitional challenge

- Community empowerment
 - Developing self-organisational capacity
 - Paradigm shift towards self-awareness
 - Articulating community needs

- Policy transition
 - Participation in societal process
 - Toward integrative cooperation
 - Developing process governance capacity

‘Welcoming Square’



Urban transitions and their governance

- Cities as systems and niches
 - Framework and discourse for coproduction
- Urban sustainability challenges
 - (re)defining collective challenges
- Guiding and accelerating urban transitions
 - Envisioning, experimenting and empowerment

→ Urban Transition Labs and community arenas

Thank you for your attention

For more information and publications:

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