Appendix 4

# Future Perspectives

## by Berry Gersionius and Sebastiaan van Herk

# What are Future Perspectives? Envisaged Results

What are Future Perspectives?

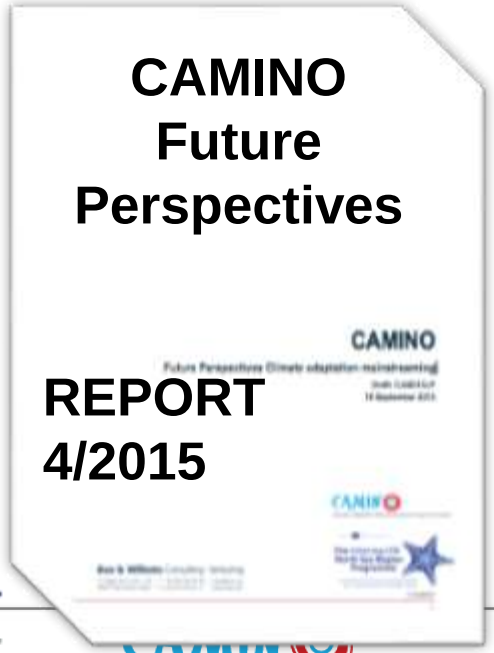
1. Approaches and lessons from CAMINO particularly regarding innovation and PPP (public private partnerships) to deliver Climate Adaptation Mainstreaming

2. Future perspectives = Existing literature + CAMINO

RESULTS / PRODUCTS

→ Report for relevant networks (ICLEI, EEA, etc)

→ Ideas for Follow-up project



# The need for Future Perspectives on urban climate adaptation

- Cities are increasingly the focal point for climate adaptation
  - Cities are increasingly the core of economic growth, social innovation, …
  - Cities are increasingly aware of the need to be resilient to stay attractive and competitive
- 10+ years of research has delivered understanding of risks, technical solutions, some major risk-reducing investments mainly focusing on disaster prevention
- There is limited understanding of and action towards broad integration of Resilience in urban adaptation

# Status of urban climate adaptation (1)
# Results achieved

- Main driver is (recent) disaster
- Urban climate risk strategies developed
  - Methodology; capacity development, climate change taken into account
  - Planning punctual investment projects
    - New developments generally climate adaptive
    - For existing areas, many investments delayed or minimised
  - Reviewing broader integration in policy / programmes
- Several examples, also in CAMINO

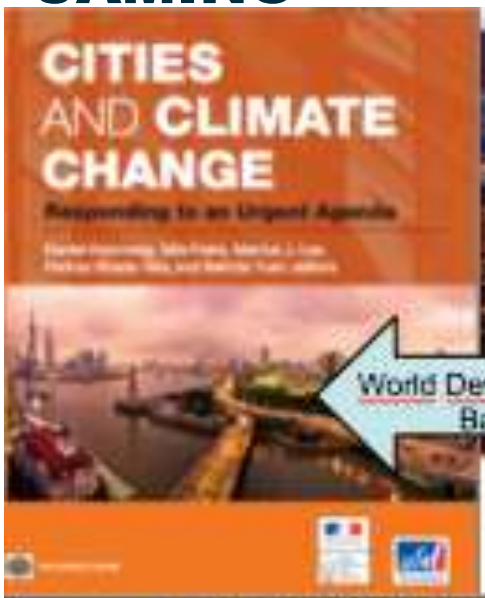
# Status of urban climate adaptation (2)
# Challenges & opportunities

- Mainstreaming
  - From special purpose investments to broad integration of CC in urban plans
    - Also design for daily life under CC
    - Demonstrate and improve cost-effectiveness
- Collaboration with private sector
  - Reconcile urban climate adaptation with other urban objectives such as Economic
    - Support new product/service development
  - New business / investment models

# Activities

**Desk research, interviews w Ex.Dir, Deltas2 conference**

# Desk research: Input from key platforms relevant for CAMINO






6. The public sector does and will still play the leading role in commissioning green infrastructure projects and to guide and "jump start" investment when needed. But transformational change will ultimately require large-scale private sector engagement. Particularly, as government balance sheets have become increasingly strained and in the face of growing infrastructure needs, further recourse to private capital through corporate balance sheets and financial or banking assets will be required. While private investment in some LCR infrastructure sectors, such as clean energy, is rising quickly, it is far from being enough to fill the infrastructure investment gap or to deliver a transition to LCR development.

*"Towards a green investment policy framework"*
*(OECD 2012)*

| Key challenges | SotA (source) | CAMINO |
|---|---|---|
| Political will and local government capacity | ICLEI, WDB, EEA | ✓ |
| Integration of plans and actions (e.g. across different sectors, governments) | ICLEI, EEA | ✓ |
| Lack of data and knowledge at local level → no abilities to research the risks | ICLEI | ? |
| Policy integration and institutions<br>- horizontal between sectors<br>- vertical across levels of government | ICLEI, WDB | ✓ |
| Locally not on the agenda → level of awareness is too low, feeling of responsibility not present | WDB | ? |
| Local vs national level. Who is responsible? | WDB | ✓ |
| Financial capacity → CAM: due to financial constraints more need for mainstreaming opportunities | WDB | ✓ |
| Create business plan for further development in other cities.<br>Beware that you don´t focus on ´leader´cities.<br>Customisation is needed. | WDB | ✓ |

| Key Opportunities | SotA (source) | CAMINO |
|---|---|---|
| Integrate climate change mitigation and adaption in the built environment now | ICLEI, EEA | ? |
| Involve the private sector/business in resilience planning | ICLEI | ✓ |
| Strengthen the connections between research and local government for a stronger knowledge base | ICLEI, EEA | ✓ |
| Creating an external network for supporting local adaption. | EEA, WDB | ✓ |
| CA is an ongoing process. Revision is needed. | WDB | ✓ |
| PPP made mandatory below a given budget threshold: force LGs to explore PPP option and raise funds on their own and not depend on the Nation State | ICLEI | ? |

# Deltas2 conference Rotterdam: CAMINO future perspectives

Mainstreaming flood resilience and green infrastructure with investment and renewal programs: Best practices and challenges from vanguards cities across the globe


THURSDAY, 25 SEPTEMBER 2014 T

**DP 7.2** Mainstreaming flood resilience and green infrastructure with investment and renewal programs: Best practices and challenges from vanguards cities across the globe

Deltas in Practice Theme 7
13.30 – 15.15
TOWNHALL ROOM

Urban (re)development provides opportunities for adapting cities to become more flood resilient. In so doing, it is important to incorporate cost-effective measures by synergistic mainstreaming within regular planning programmes, so that the inclusion of such interventions can become part of a short- and long-term climate adaptation strategy. Successful implementation will require a paradigm shift of planned adaptation from its primary focus on climate mitigation using stand-alone interventions to a broader focus on (i) increasing the performance of the city through green investment, (ii) integrating adaptation into urban redevelopment programs, and (iii) recognizing that climate resilient cities require continuous learning and action. Significant work has been undertaken in this field by the cities of Tainan, Copenhagen, Singapore, Melbourne and Dordrecht/Rotterdam. Together with stakeholders and researchers this session aims to explore successful institutional, planning, policy and business practices for mainstreaming adaptation and greening and opportunities for knowledge exchange.

Chair: Prof. Chris Zevenbergen, UNESCO-IH and Delft University of Technology, the Netherlands (chair)
Prof. Gin-Rong Liu, NCU, Taiwan (co-chair)
Dr. Peter van der Keur, GEUS, Denmark (co-chair)
Dr. Beth McLachlan, City of Melbourne, Australia (co-chair)

Organised by: Prof. Chris Zevenbergen, UNESCO-IH and Delft University of Technology, the Netherlands

Presentations:
Climate adaptation in Tainan: Best practices and challenges of the old city centre
Mayor Ching-Te Lai, Tainan City, Taiwan
Flood management in a growing and greening city
Beth McLachlan, City of Melbourne, Australia
Opportunities and treats of green infrastructure
Tan Nguan Sen, PUB, the national water agency, Singapore
Copenhagen Cloudburst Management plan
Jan Rasmussen, City of Copenhagen, Denmark
Mainstreaming adaptation in Dordrecht and Rotterdam
Ellen Kelder, City of Dordrecht, the Netherlands

Panel:
Prof. Gin-Rong Liu, NCU, Taiwan
Dr. Peter van de Keur, GEUS, Denmark
Prof. Nigel Tapper, Monash University, Australia
Dr. Vladan Babovic, NUS, Singapore (tbc)
Dr. Sebastiaan van Herk, Unesco-IH, the Netherlands
John Jacobs, City of Rotterdam, the Netherlands

24 – 26 SEPTEMBER 2014 ROTTERDAM, THE NETHERLANDS 73

The North Sea Region Programme 2007–2013

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DORDRECHT

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through Innovation

# Outcomes: Dordrecht, Rotterdam, Copenhagen, Singapore, Tainan, Melbourne

- Frontrunner cities have implemented ambition, strategy & appealing projects. However, this is certainly not 'mainstream'.
- Process of aunotnomous transformation towards an adaptive city takes decades. Too long!
- Extreme events are game changers, but not actionable. Several examples of change and action through awareness, leadership and engagement of citizens!
- Adapt where possible rather than where necessary it the new paradigm. Seize opportunities and reframe towards broader integrated aims (eg resilience)
- Resilience is a complex notion for stakeholders. This is a challenge. E.g. Stress tests can help.
- Seize opportunities for adaptive management and learning: experiments and multi-project programmes.

# Interviews with City Executives on mainstreaming & investment planning

Magnar Sekse

Hans Jochen Hinz

Barbara Vael? VMM

RMBC / Sheffield?

Martien van der Kraan

# Outcomes after interviews Dordrecht & Bergen

Maintreaming at 3 levels, and many examples:

Operational:

Once implementation is decided and planned, than measures are combined by civil servants. Eg construction & maintainance works. Operational planning can be formally organised (not everywhere), but depends on informal inter-personal and -departmental and –organisational relations.

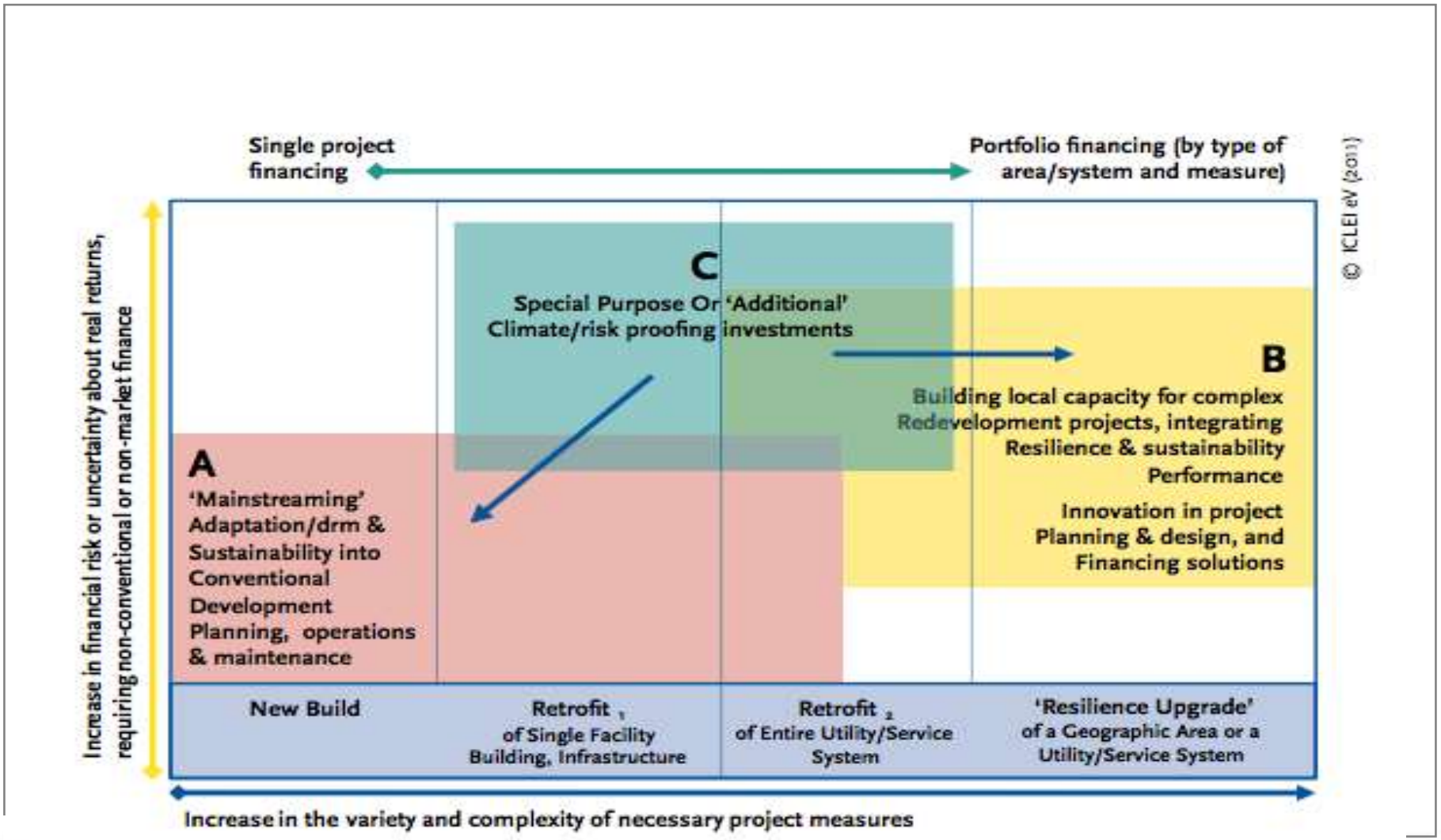
Tactical:

Smart integrated design of measures. This is done by urban planners & civil engineers and depends on their capacities and organisation (design teams?).

Political / strategic:

¨Adding a mandatory additional paragraph to an investment plan from another domain, doesn't work. It is liking ticking a box. Rather climate adaptation gets political weight and its own programme, to discuss amongst equals¨.

# ICLEI: from special purpose interventions to climate upgrading



# Summary

- Adapt where possible: capacity building of civil servants
- Adapt where necessary / holistic adaptation programme: political will after extreme event or based on citizen awareness & engagement
- Several public-private financing & collaborative models possible. (CRC, UIHE, TripleBridge)

# Back up

- Axis:

Key driver vs incorporate/advocate

O: advocate

T: advocate

S: key driver

Political will & awareness vs capacities

O: capacities

T: capacities

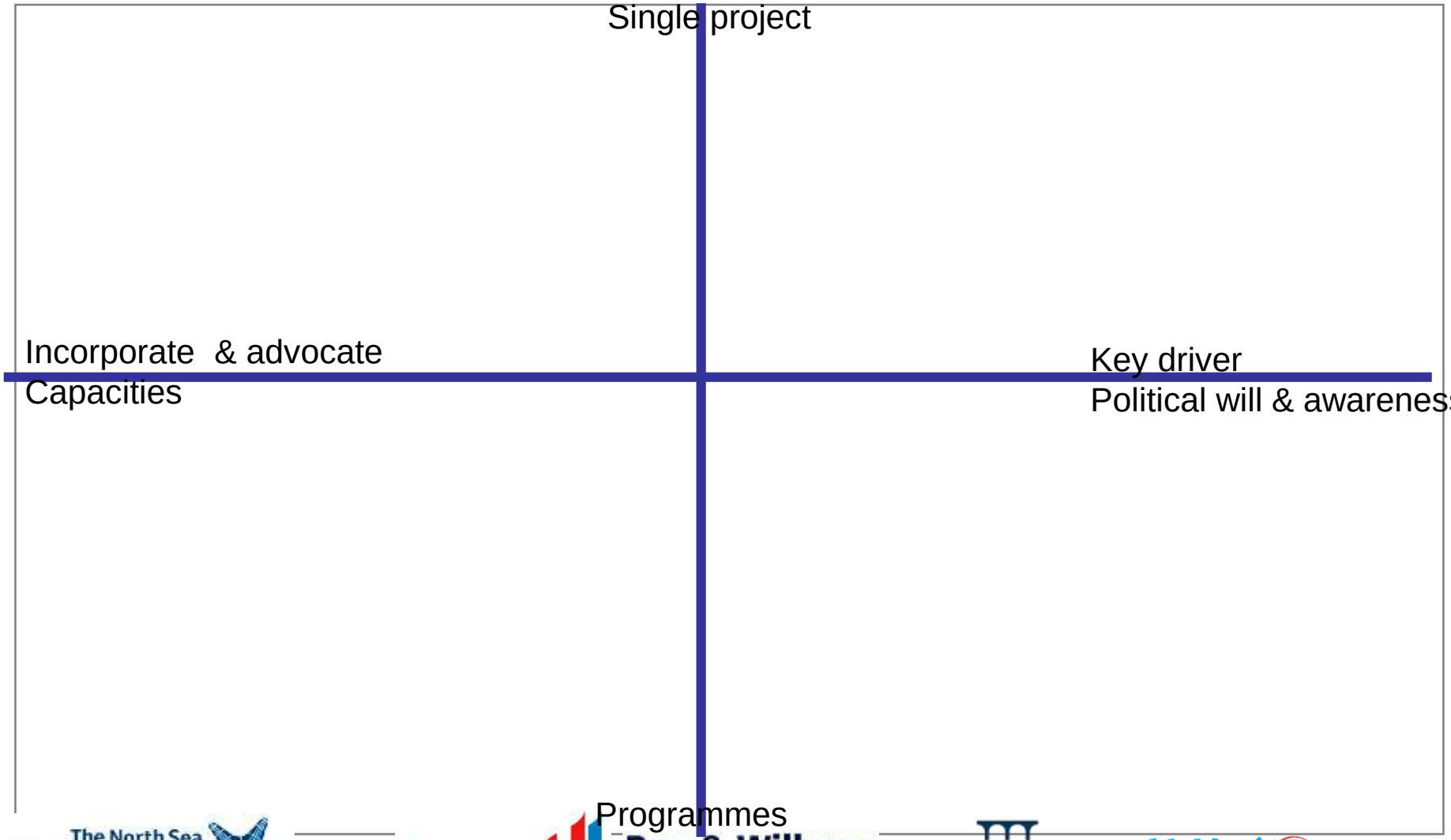
S: Political will & awareness

Single project vs programme/strategy

O: programme

T: single project

S: programme


Single project
Incorporate & advocate
Capacities
Key driver
Political will & awareness
Programmes