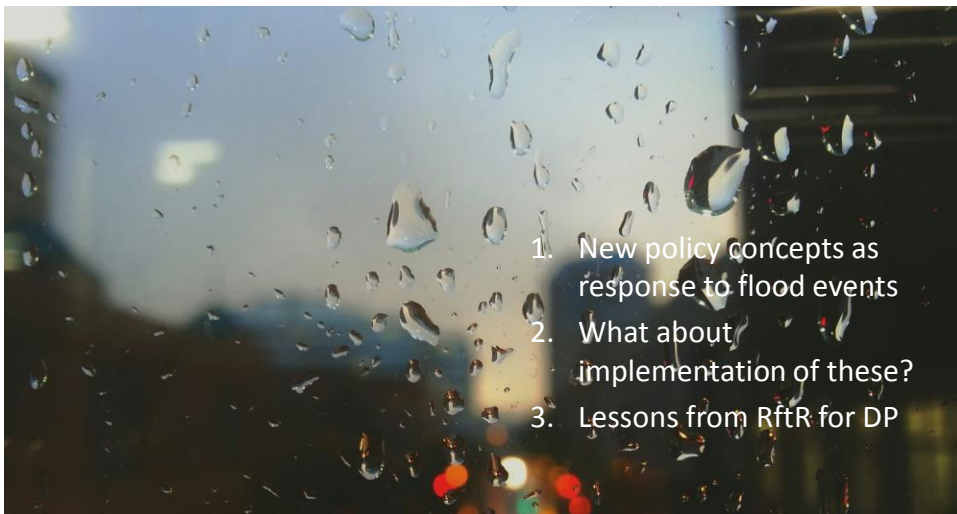




FROM POLICY TO DELIVERY OF INTEGRATED FLOOD RISK MANAGEMENT

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Institute for Water Education
Bax & Willems
Consulting Venturing

Dr. Ir. Sebastiaan van Herk, Bax & Willems Consulting Venturing



1. New policy concepts as response to flood events
2. What about implementation of these?
3. Lessons from Rftr for DP

SUMMARY

MAR  **ASIA**

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RETHINK AFTER FLOOD EVENTS

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NEW CONCEPTS

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MAINSTREAMING

The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.



RESILIENCE

The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.



ADAPTATION

The modification of sector policies, programmes, or 'normal' investment projects to address climate adaptation or to incorporate adaptation responses.

NEW SOLUTIONS

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LIVING WITH WATER



CRITICAL INFRASTRUCTURE



GREEN INFRASTRUCTURE



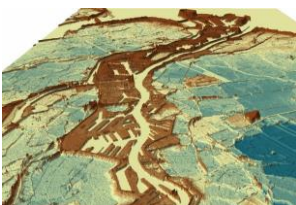
BUILDING WITH NATURE

Images (from top left to bottom right):

- Floating housing in the Netherlands
- Manhattan during the widespread blackouts following Hurricane Sandy
- A green infrastructure project in the Netherlands
- Shanghai Houtan park: flood control with ecology

NEW GOVERNANCE APPROACHES

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SYSTEM & RISK APPROACH



PARTICIPATORY PROCESS



EXPERIMENTATION



ADAPTIVE MANAGEMENT

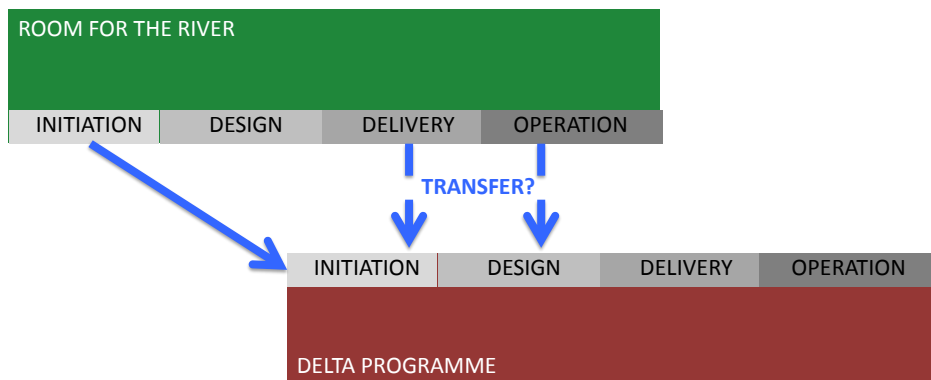
TOWARDS IMPLEMENTATION?

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LESSONS FROM 2 PROGRAMMES IN DIFFERENT
PHASES: un unfair comparison

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RftR: URGENCY AFTER 1993 & 1995 FLOODS

Versus DP: WAKE UP CALL FROM KATRINA

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Urgency scored 4.3/5 as most important success factor

ROOM FOR THE RIVER: 1999 - 2015

>60 interviews, >150 survey

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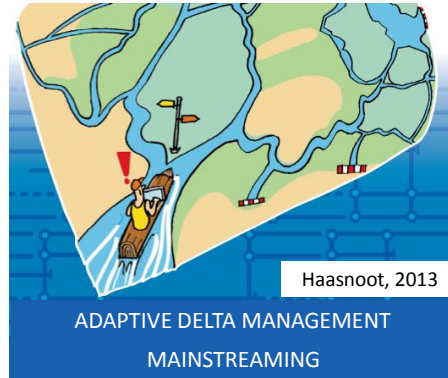
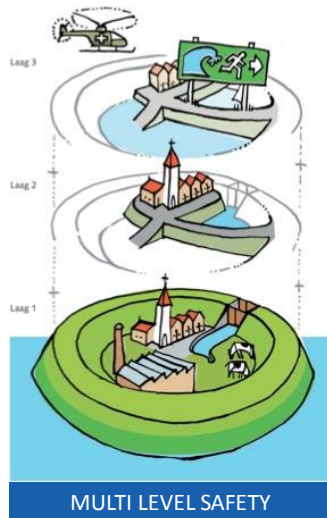
RIVER WIDENING

Nijmegen

CASES DELTA PROGRAMME

New concepts

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DELTA PROGRAMME: 2010 - 2100

2 case studies: action research

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LESSONS ROOM FOR THE RIVER

Selection

- Start with integrated Vision
- Consider multiple interests
- Adopt fit-for-purpose governance
- Structure & funnel planning process
- Cultivate adaptive management & learning

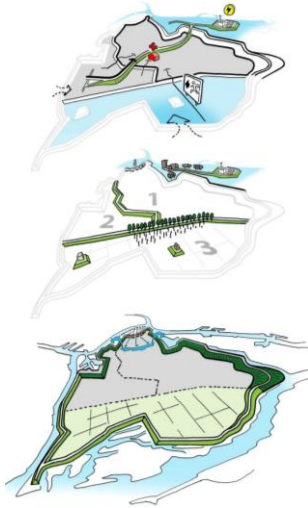
INTEGRATED CONCEPT & DOUBLE OBJECTIVE



“Room for the River is like your first love”
‘Combined objectives’ scored 4,0/5

INTEGRATED CONCEPT IN INITIAL PHASES, BUT NOT DELIVERED (REGULATION & FUNDING)

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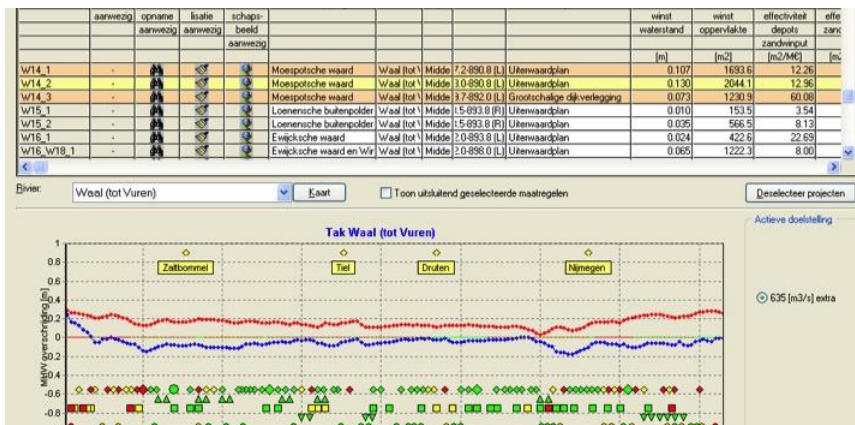
MULTI LEVEL SAFETY DORDRECHT



WIELWIJK CLIMATE PROOF

INTEGRATED VISION: PROGRAMMED APPROACH

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"RftR is like a chain of pearls: beautiful individual projects that cannot be considered in isolation of each other."

CONSIDER MULTIPLE INTERESTS

Complexity and Expectation management

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“The ‘Box of blocks’ tool enabled democratic use of knowledge: it was provided to eldersmen who could then propose packages of measures.”

CONSIDER MULTIPLE INTERESTS

Complexity and Expectation management

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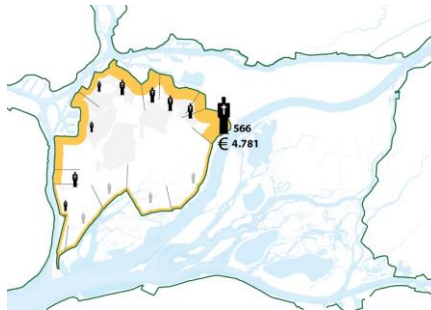


FIT FOR PURPOSE GOVERNANCE ARRANGEMENTS

- RftR had clear agreements & contracts on: budget, objectives, scope & responsibilities

versus

- DP had many open points: safety norms, budgets & funding.
Now: Delta fund, delta decisions.



FIT FOR PURPOSE GOVERNANCE ARRANGEMENTS PUBLIC-PRIVATE DELIVERY



"Permit requests of all authorities are combined: a one-stop-shop"
"Stakeholder management & spatial quality are important tender criteria"

FIT FOR PURPOSE GOVERNANCE ARRANGEMENTS MAINTENANCE & OPERATION

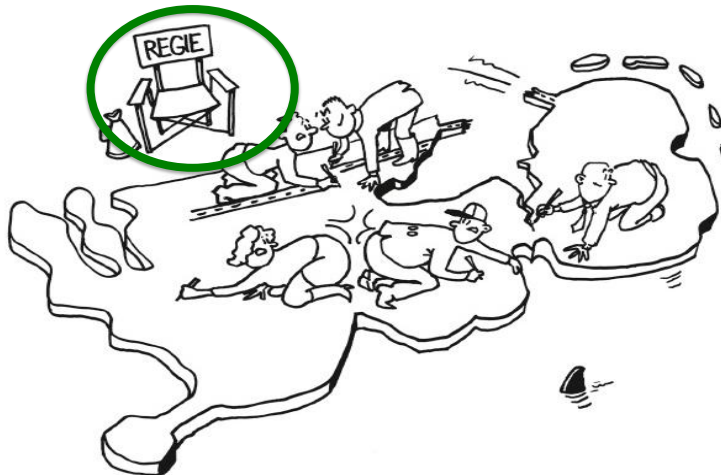
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*“Changes to maintenance costs have not been budgetted, nor negotiated”
“Permits have been granted under pressure to comply with project constraints”*

STRUCTURED & FUNNELED PLANNING PROCESS How to combine with Adaptive Delta Management?

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*“Strict deadlines pressured us to decide & deliver;
even political risks were monitored.” Importance: 4.0/5*

CULTIVATE ADAPTIVE MANAGEMENT & LEARNING

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*"RftR started as a local train and whilst driving
we converted it into a high speed train."*

Community with multiple network & training events, but maybe more explicit focus?

CULTIVATE ADAPTIVE MANAGEMENT & LEARNING

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Private involvement & Innovation

CONCLUSIONS

- Research & Experiment with new concepts
- But think ahead: Expectation management, Boundary conditions
- Be flexible and learn



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THANK YOU