



## Climate Adaptation Support Toolbox

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Deltas in Times of Climate Change II  
Rotterdam

22 September 2014



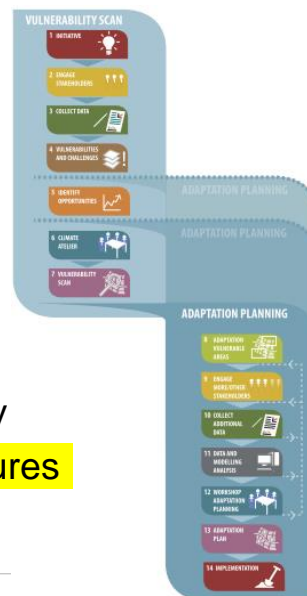
## How to reduce climate vulnerability?



### Tiered approach

Three steps:

- 1: Vulnerability scan
- 2: Strategy to reduce vulnerability
- 3: Select set of adaptation measures



**Lots of adaptation measures can be taken**

**Many, many options:**



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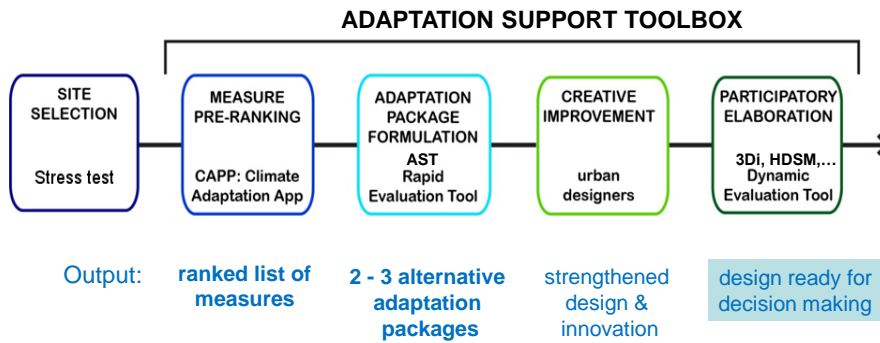
**Select and co-design solutions**



e.g. on a touch-table, involving the stakeholders

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## ..with our Adaptation Support Toolbox



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## Climate Adaptation App ([www.climateapp.org](http://www.climateapp.org))

**ADAPTATION SOLUTIONS**

**FILTER**

- Project type
  - Redevelopment
- Scale
  - Neighborhood
- Adaptation target
  - Groundwater flooding
- Land use
  - City Centre
- Dominant soil type
  - Peat
- Surface level and slope
  - Sloping area
  - Flat area on high ground
  - Flat area on low ground

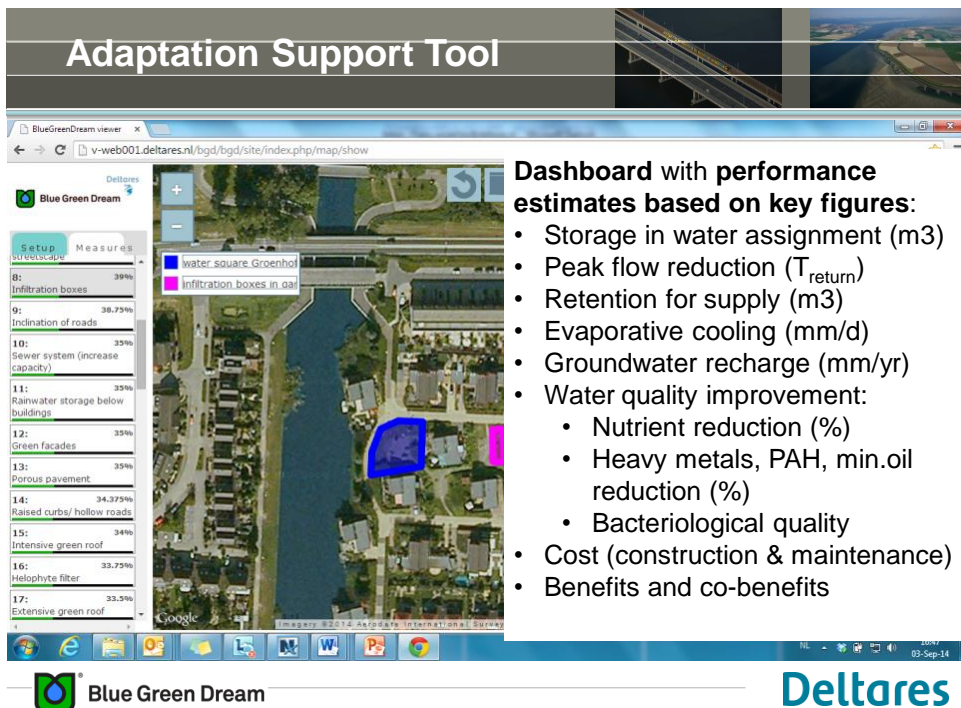
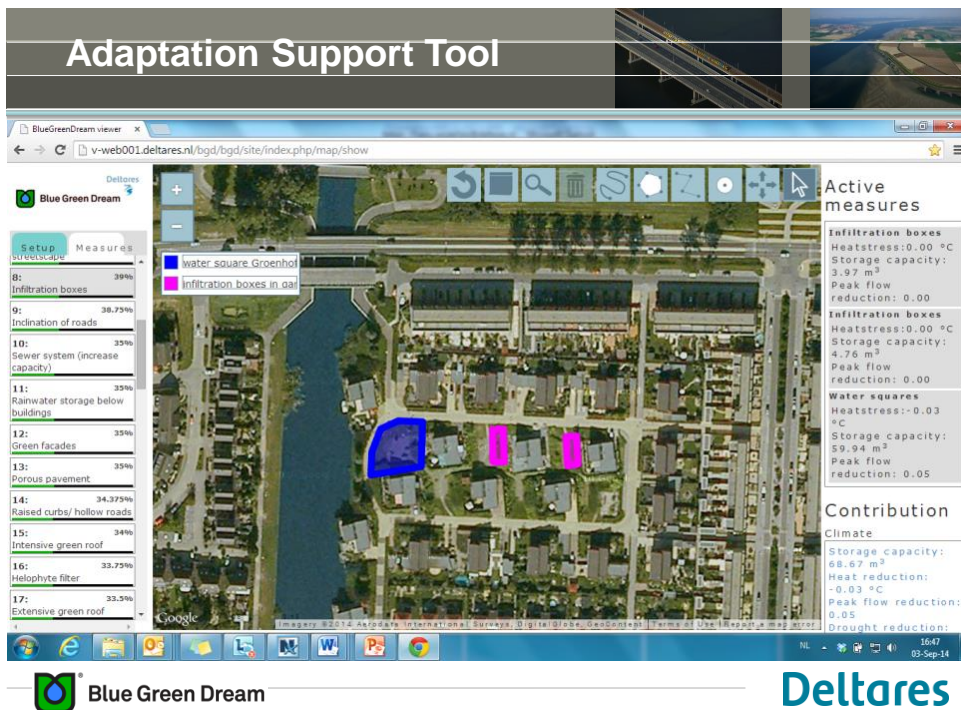
28 Adaptation solutions

**CLIMATE INFORMATION**

**ABOUT**

**ADAPTATION SOLUTIONS**

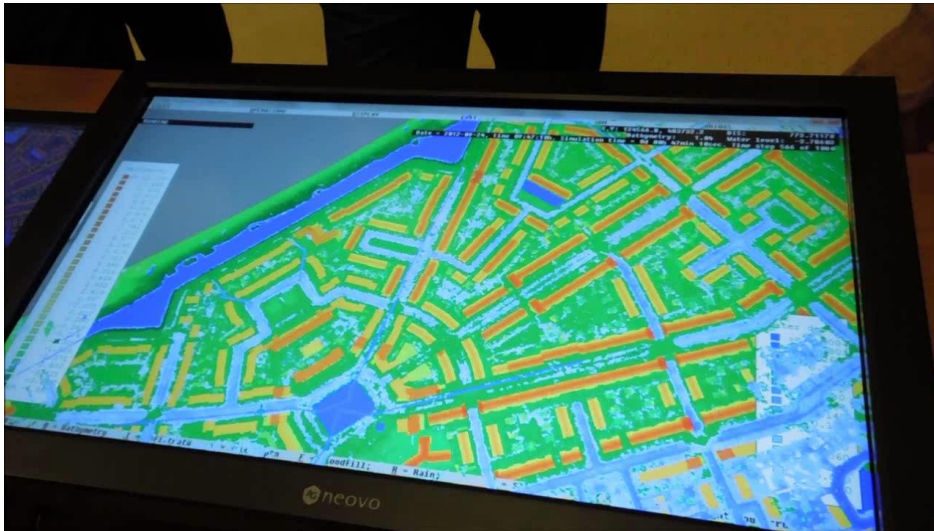
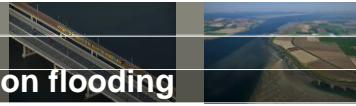
Canal	Seepage barrier	Improved construction site preparation
Raising land	Raising the groundfloor level	Infiltration and Transport-sewer
Emergency supplies and utilities	Pumping station	Drainage below surface level
Constructions on piles	Amphibious (floatable) constructions	Smart-drain (groundwater)





## Dynamic Evaluation Tools

e.g. effect of adaptation measures on flooding

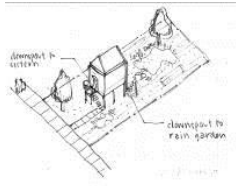
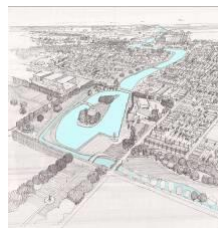
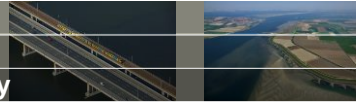


3Di on MapTable, showing flood-prone areas

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## Design support tools

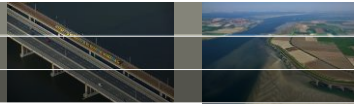
for a resilient, sustainable and healthy city



Dutch Dialogues III, April 2010, [www.dutchdialogues.com](http://www.dutchdialogues.com)  
[www.livingwithwater.com](http://www.livingwithwater.com) 2013 GNO Urban Water Plan

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## Closing



Thank you for your attention!

