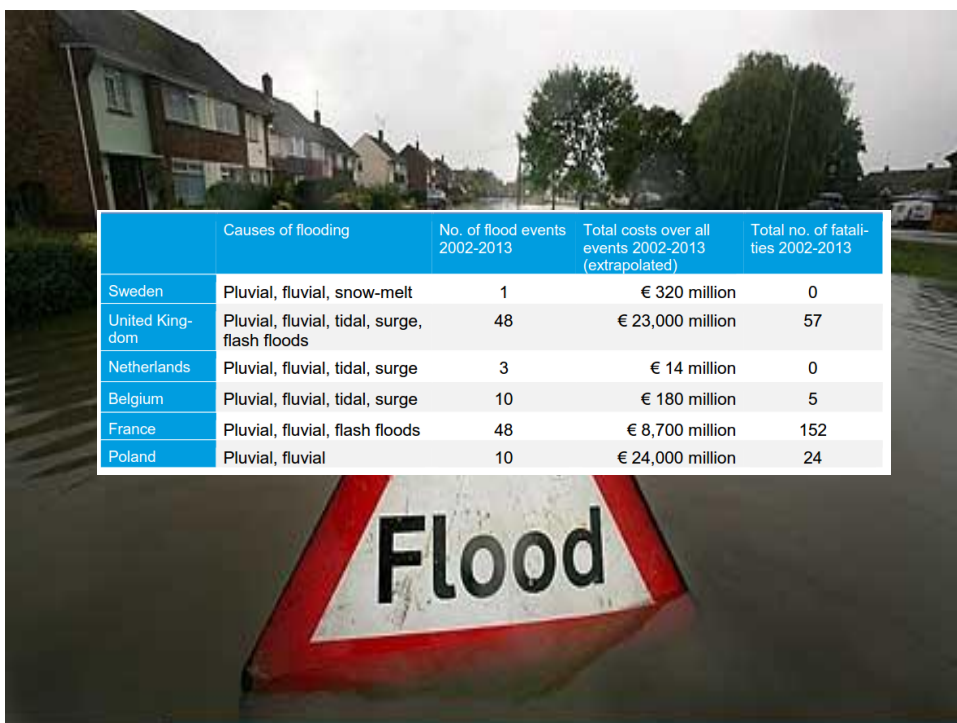




Resilient cities talk The topic of today

Presenter: Martijn Steenstra, Grontmij
Deltas in Times of Climate Change
September 25, 2014

**STAR
FLOOD**



	Causes of flooding	No. of flood events 2002-2013	Total costs over all events 2002-2013 (extrapolated)	Total no. of fatalities 2002-2013
Sweden	Pluvial, fluvial, snow-melt	1	€ 320 million	0
United Kingdom	Pluvial, fluvial, tidal, surge, flash floods	48	€ 23,000 million	57
Netherlands	Pluvial, fluvial, tidal, surge	3	€ 14 million	0
Belgium	Pluvial, fluvial, tidal, surge	10	€ 180 million	5
France	Pluvial, fluvial, flash floods	48	€ 8,700 million	152
Poland	Pluvial, fluvial	10	€ 24,000 million	24

European seventh framework
project
STAR-FLOOD 2012 - 2016



***ST**rengthening **And Re-**designing European **FLOOD** risk practices:
Towards appropriate and resilient flood risk governance
arrangements*

Participating countries

France
Belgium
England
Sweden
Poland
The Netherlands



**STAR-FLOOD: an EU FP7 project
on flood risk governance**

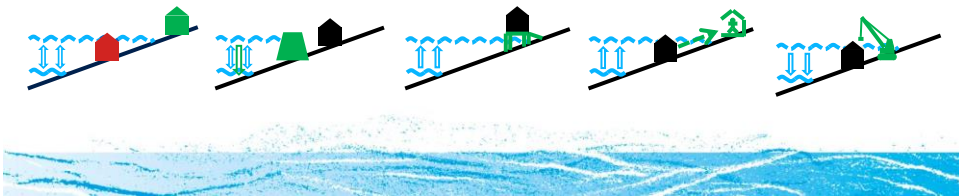
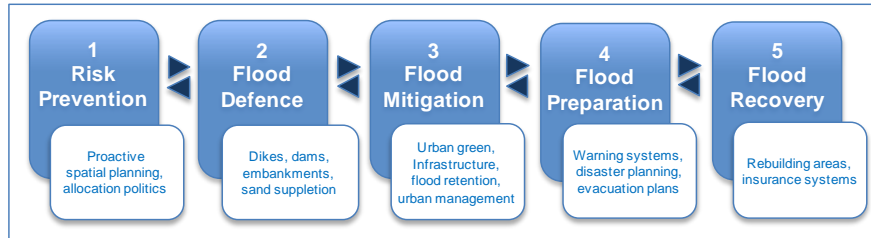


Hypothesis

Urban areas will be more resilient if several
Flood Risk Management Strategies are
combined and integrated



Flood Risk Management Strategies



Governance arrangements



Flood Risk Management Strategies are embedded in Governance Arrangements:

- Actors
- Discourses
- Rules
- Resources

Related to all policy domains relevant for Flood Risk Management (water management, spatial planning, disaster management)



Challenge



To develop an integrated overall strategy for a city or region, when responsibilities for the execution of the 5 strategies described are divided among institutions.



Flood Risk Governance Arrangements



Actors	Discourses	Rules	Power & Resources
<ul style="list-style-type: none"> - Public actors - Private actors - Coalitions and oppositions - Interaction patterns 	<ul style="list-style-type: none"> - Relevant scientific paradigms and uncertainties - Policy programmes, and policy concepts - Historical metaphors/narratives - Policy and Legal Principles 	<ul style="list-style-type: none"> - Legislation - Constitutional, procedural & substantive norms - Procedural instruments - Legal traditions - Cross-country and cross-sector alignment of rules - Policy and legal principles - Informal norms, culture 	<ul style="list-style-type: none"> - Legal authority, including the right to regulate property - Financial power - Knowledge - Informal political networks - Interaction skills

