



DELTA IN TIMES OF CLIMATE CHANGE II

INTERNATIONAL CONFERENCE

OPPORTUNITIES FOR PEOPLE, SCIENCE, CITIES AND BUSINESS
 ROTTERDAM THE NETHERLANDS, 24 – 26 SEPTEMBER 2014

Deltas in Practice, policy-practice sessions	
Deltas in Practice Theme 2. Adaptation strategies	
DP 2.7 Weathering the storms	
Chair	Alex Nickson, Greater London Authority, United Kingdom Lykke Leonardsen, Copenhagen City Council, Denmark
Organised by	Alex Nickson, Greater London Authority, United Kingdom Lykke Leonardsen, Copenhagen City Council, Denmark Paulien Hartog, Amsterdam Rainproof, the Netherlands Elke Kruse, HafenCity University Hamburg, Germany
Presentations	<ul style="list-style-type: none"> ● Alex Nickson, Greater London Authority, United Kingdom ● Paulien Hartog, Amsterdam Rainproof, the Netherlands ● Elke Kruse, HafenCity University Hamburg, Germany ● Lykke Leonardsen, Copenhagen City Council, Denmark
Panel	<ul style="list-style-type: none"> ● Jes Clauson-Kaas, HOFSOR, Denmark ● Daniel Goedbloed, Amsterdam Rainproof, the Netherlands ● Jeroen Kluck, University of Applied Sciences Amsterdam, the Netherlands ● Wolfgang Dickhaut, HafenCity University Hamburg, Germany
Session topic	<ul style="list-style-type: none"> ● 4 delta cities in Europe highlight their plans and approaches on how to manage the increasing storm water to protect their cities and residents from the unpredictable long term effects of climate change
Objective of the session	<ul style="list-style-type: none"> ● Sharing the different approaches the cities facing increasing intensive rainfall as a consequence of climate change and learning from each others' experiences and practices. The focus is not only on the technical measures but also on other aspects such as legislation, policies, taxes and the communication to and participation of the community.
Main conclusions and lessons learnt from the presentations	
<p>The London Sustainable Drainage action plan, is focused on the transition of the current sewerage system. The challenges London is facing are the rapid growth of the population and the city, the loss of permeable area, climate change and increasing operational costs. Besides the transition of the sewerage system, London will work on increasing the green/ permeable areas in the city. An important step is mapping the opportunities for main streaming in each sector (such transport, housing and schools). A question London is investigating is whether it is possible to charge for surface water run off.</p> <p>Amsterdam chose a network approach applied by a dedicated team outside of existing government structures. The Rainproof platform connects and facilitates all the involved stakeholders (like citizens, government, entrepreneurs), makes them part of the plan, and connects them with the local initiatives. They try to balance between urgency (damage control) and creating value out of rain. By improving the knowledge of the vulnerability of assessment and developing tools, Amsterdam wants to keep their citizens and entrepreneurs connected and inspired to work towards shared future targets.</p> <p>In their integrated storm water management Hamburg has focuses too little on awareness and the necessity to consider climate change in urban and spatial planning and traffic management.</p>	





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Hamburg does have a rainwater oriented tax legislation. The 'rainwater fee' is based on the discharge that runs off the paved areas of the owners and gives the government the opportunity to stimulate private owners to take measure on their own properties. There is a need for a centralised administration of water management with improved expertise.

Driven by the extreme cloudburst events in the last 4 years, Copenhagen made a cloudburst adaptation plan to adapt the city adapted to climate change. The approach is on the catchment areas of the city to prioritise the projects and to schedule in a time plan. The plan will be implemented in close cooperation with the Copenhagen City Council and the Greater Water Utility. The overall plan for the city integrates solutions for each catchment area, from underground to surface. The action plan turns special attention to the investment statements. All the projects are financed by the government through the water fees in corporation with neighbouring municipalities.

Main conclusions of the discussion

Each city has a different approach to adaptation strategies but there is some common ground:

- Mapping the city to find weaknesses and strong points of the infrastructure to mark and priorities your measures. The set of solutions need to fit local needs and characteristics.
- Collaboration between governments, private companies and citizens can really make a change in urban design
- A good communication plan is needed to raise awareness and knowledge of citizens, politicians and corporations on climate change
- Combining storm water management and urban planning/ design can realise measures at a lower cost. For example the multiple usage of urban areas or unpaved/ greening the city.
- Up until now all the costs for adaptation measures were paid by the government. Who will pay the costs of making cities resilient in the future?
- Implementing only technical solutions will not be enough, also financial, legal and social measures are needed.

Main result or conclusion of the session

To weather the storms building more specific infrastructure in a crowded city will not be enough. The cities need to be creative and inventive. Their integrated strategies should include all aspects ranging from technical measure to urban design, legislation, financing and communication. For this collaboration is key.

Most exciting insights or outcomes

- Making climate change and urban design common sense and not just the responsibility of water management
- Being flexible on the long term is the way towards resilience

