Living with water – and making the most of it
A GROWING CITY

- 590,000 citizens
- 1,000 more every month
- We expect to be 100,000 more by 2025
COCREATING COPENHAGEN

• A liveable city – a city full of life
• A city with responsibility – both for citizens and globally
• A city with an edge and room for differences
• Co-creation
Harbour and harbour baths

- Industrial harbour abandoned in 70’s and 80’s
- Combined sewer overflows
- Bad water quality
- In 1992 the city decided on a plan to improve water quality
- Trigger – we want to be able to swim in the harbour
The harbour today

- Closed CSO’s
- An urban harbour park
- The center for urban life in the summer
- Increased economic activity
- Effective warning system keeps citizens safe
The adaptation plan

- Inspired by cities like New York, London and Rotterdam
- Work started in 2009
- Plan finally approved by City Council in August 2011
- Impact of future weather in Copenhagen
- Risk assessment
- Strategies for action
- Suggestion of first actions
- An estimated implementation period of 30-50 years
- Focus on opportunities of climate change
The future weather in Copenhagen

- Warmer
- Wetter
- Wilder
Climate change impacts

Risk map for flooding caused by rain in 2110

Risk map for storm surges from the sea in 2110
The vulnerable city

• 150 mm rain in 2 hours
• Damages close to 1 billion euro
• Damages to critical infrastructure
• A game changer for the city
• Development of a Cloudburst management Plan
The Cloudburst Management Plan
Following the natural flow of water – and creating a new infrastructure
Dividing the city into catchment areas
New typologies – lots of innovation

- Cloudburst boulevards – transporting water
- Retention boulevards – delaying water
- Central delays – for storing water
Cloudburst Branches

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The opportunities of adaptation

- Focus on urban spaces
- Green and blue urban spaces
- We are developing a concept for the integration of adding more urban nature in the urban space
- Green adaptation – using the synergies to create green corridors and hopefully increase biodiversity
- Creating a liveable city
Tåsinge Square – the first water park
Tåsinge Plads – the first water park

And it works....
Adding urban space improvements
Enghaveparken
Enghaveparken
Different planning logics

• Adaptation the Copenhagen way interferes with a lot of different planning logics
• When engineers meet architects
• When planners meet the environmentalists
• And they in turn meet the economists
• And then we haven’t even mentioned the legal experts....
• Then we have to work a little bit for sweet music to appear
What is happening

• 300 projects
• And investment of 1.5 billion oEur
• 20 years construction time
• Sound business case
• Dynamic plan
Cloudburst Plan as backbone for physical development in the City

- Hydraulic structure will be the backbone for all urban space developments for the next 20 years.
- It is through the cloudburst projects that other strategies for the city will be implemented – such as urban nature, bicycling etc.
- Annual project packets based on the hydraulic structure – with urban space improvements as parts of the projects
Time line of adaptation process in Copenhagen

August 2011
Plan approved by City Council

December 2012
Plan approved by City Council

2013-2014
Preparation of plan for each water catchment area

November, 2015
Political decision for implementation
Thank you for your attention
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