

# Adapting Rotterdam area for flood resilience

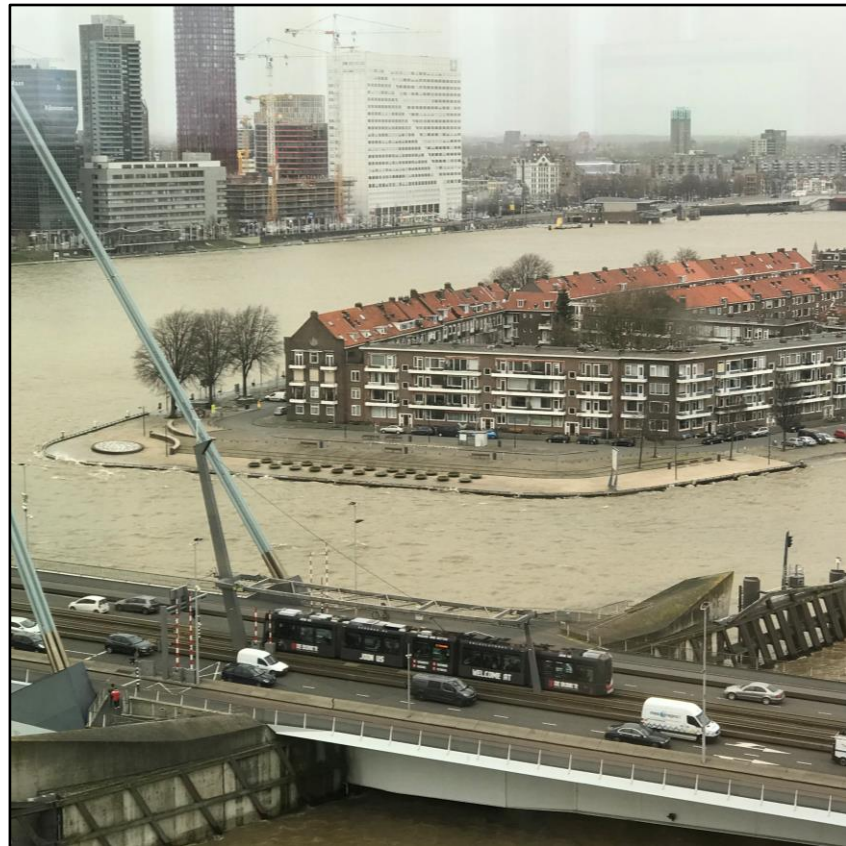
SFSLD Conference November 3rd, 2021

Vera Konings

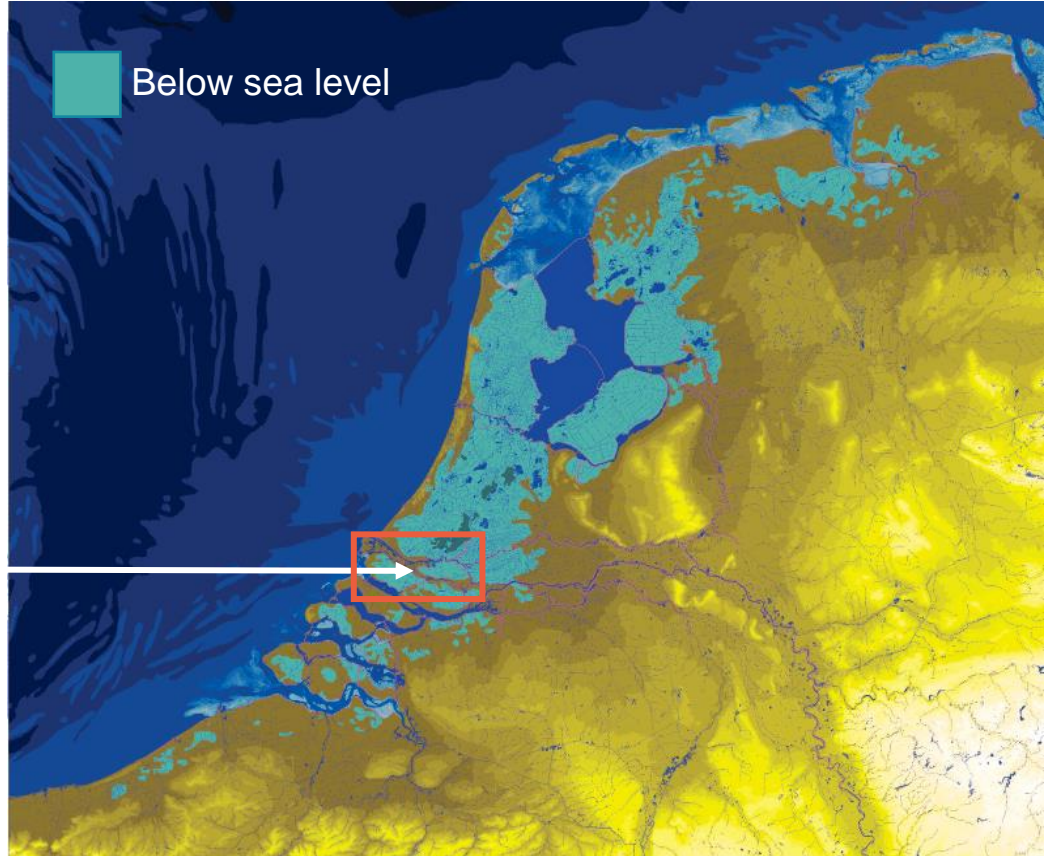
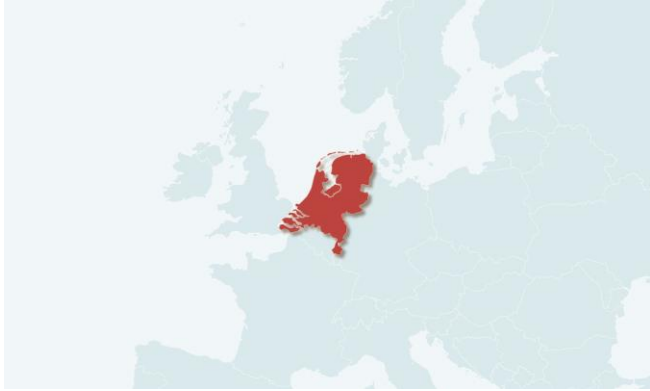
Flood risk management - Municipality of Rotterdam



# Rotterdam, a delta city along the river

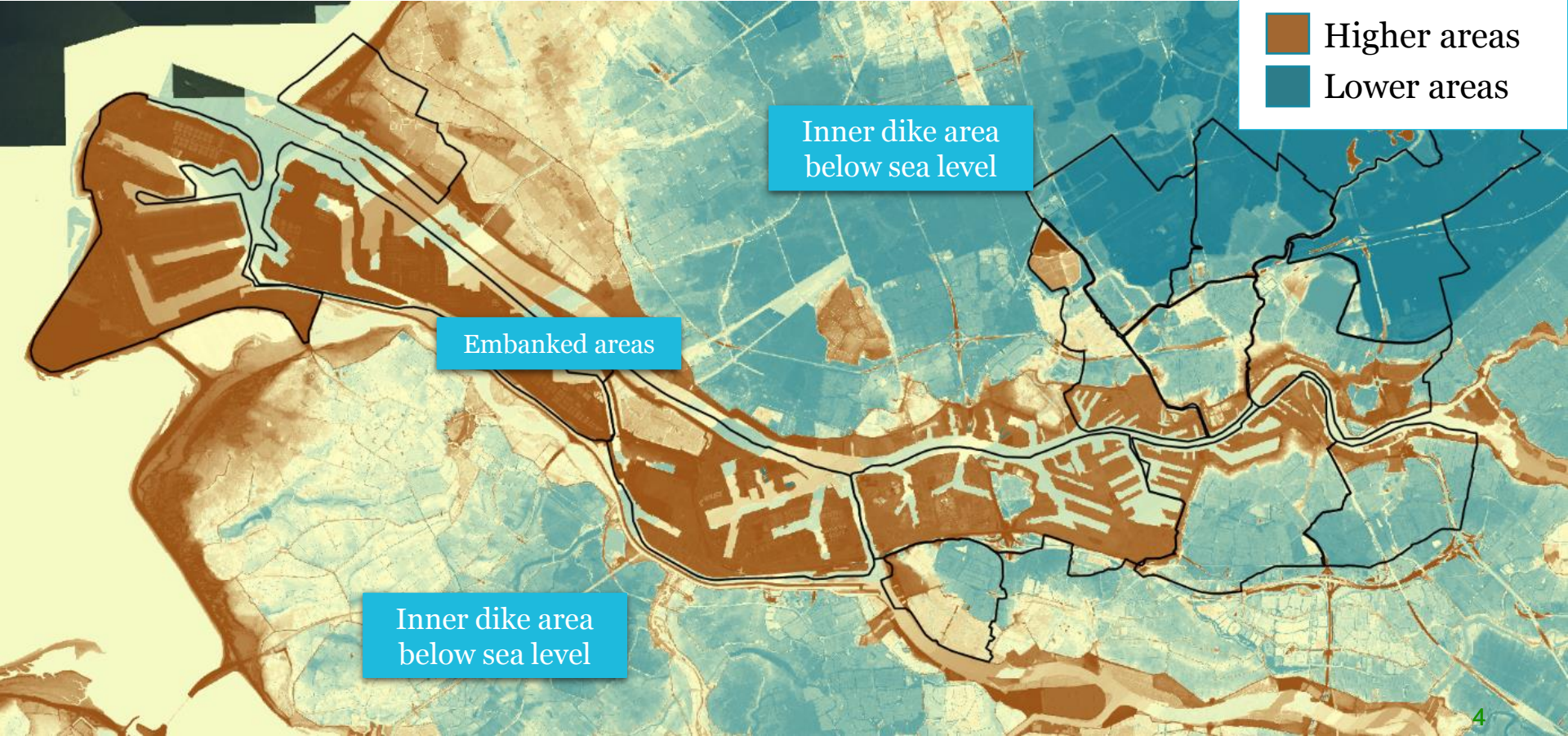


# Rotterdam, a delta city along the river

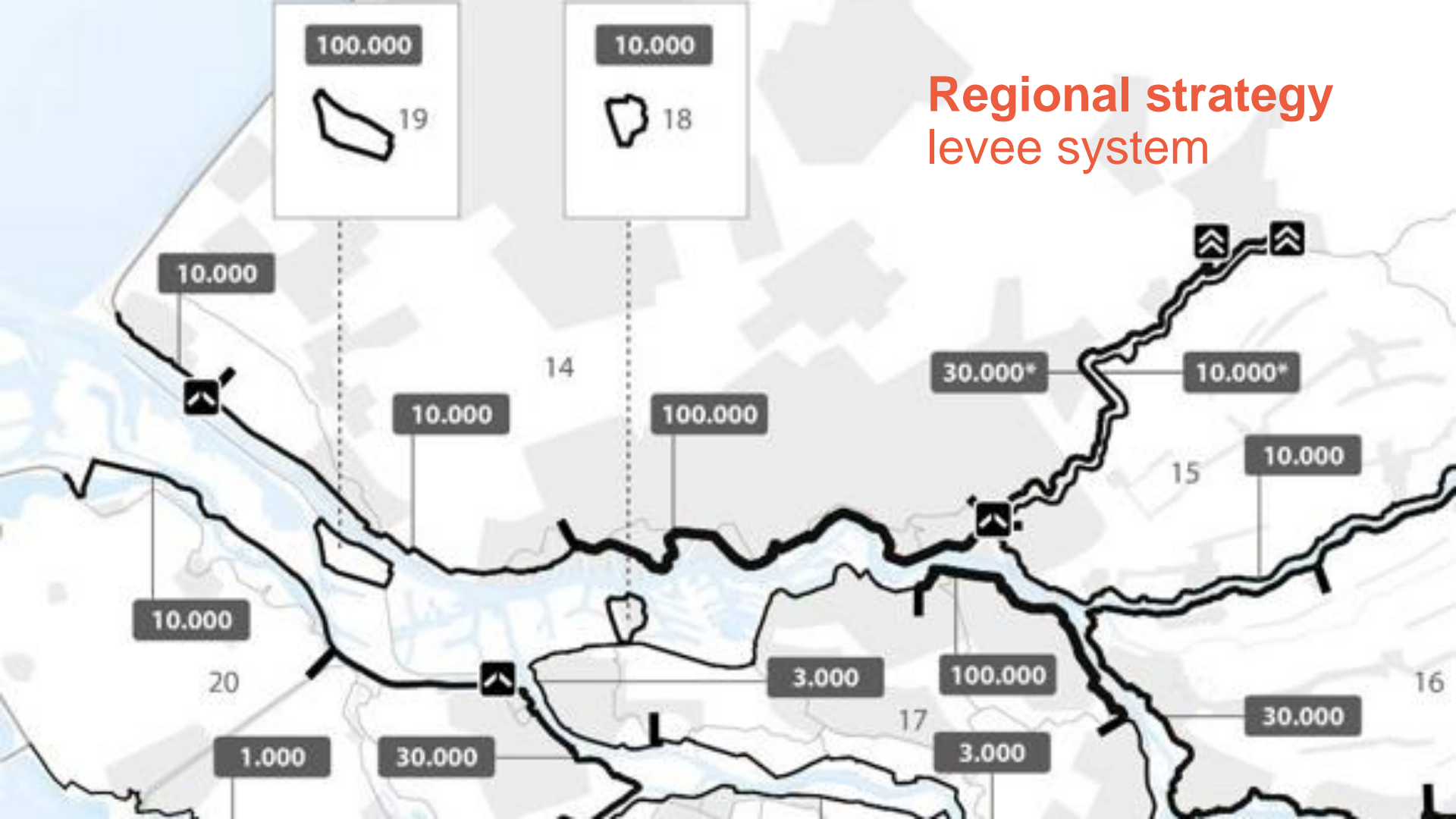


Rotterdam

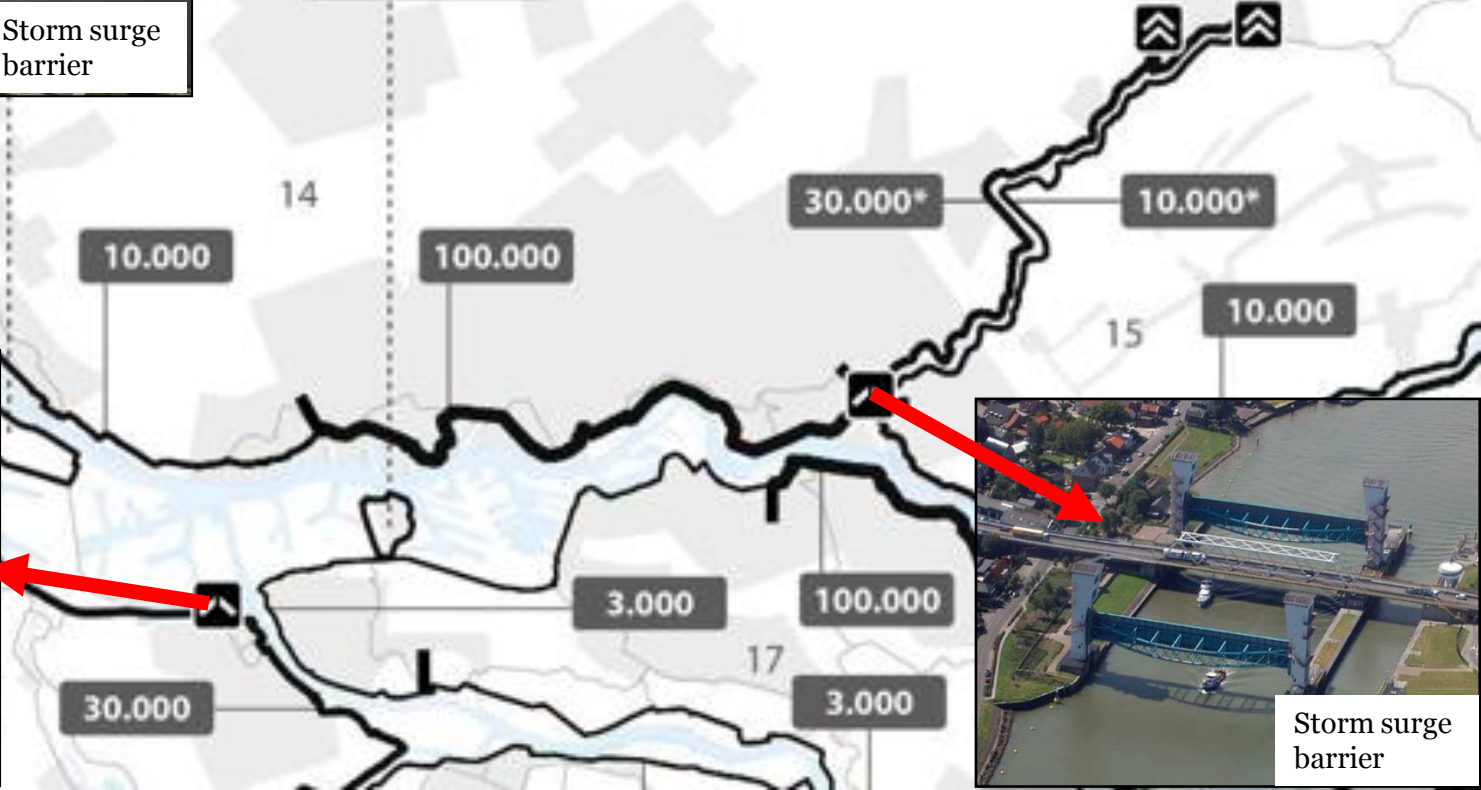
# Height map



# Regional strategy levee system

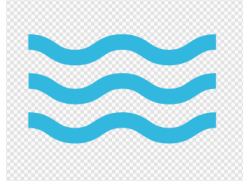


# Regional strategy storm surge system



# Flood risk management is of vital importance

**Climate change:**  
*probability* of a flood  
increases in the future



Sea level rise and  
higher discharges

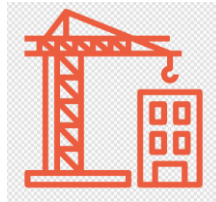


Soil subsidence

**New developments:**  
*consequences* of a flood  
increase



Growing amount  
of inhabitants



City is 'booming'

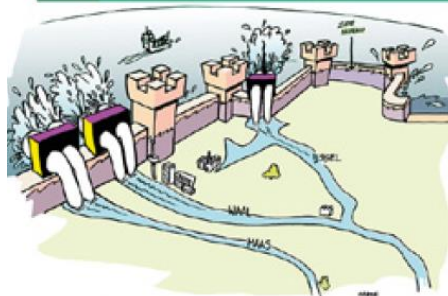


More business and new  
port activities

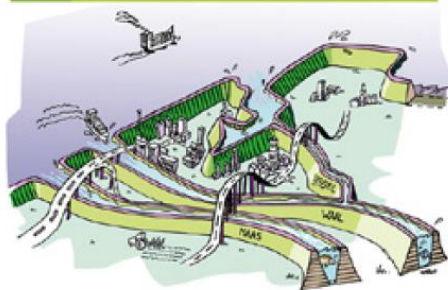
**And with our current regional strategy we can  
cope well with sea level rise ...**

# But what if we have more than 1 meter sea level rise?

■ Beschermen gesloten



□ Beschermen open



< Zeewaarts



≡ Meebewegen

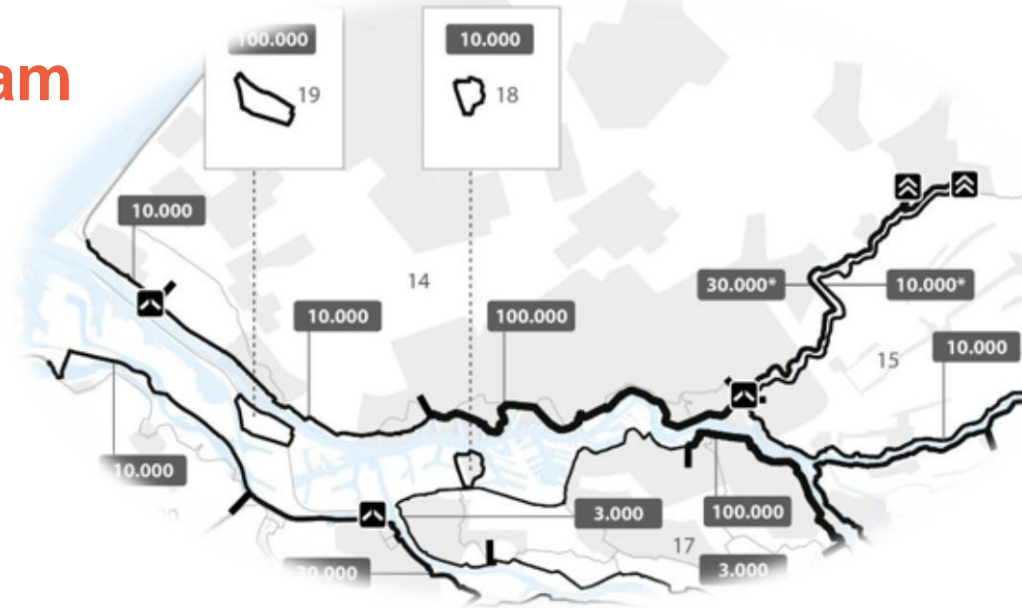




# Current strategy Rotterdam and area (periodic updates)

## Developed and executed by

- Ministry of Infrastructure
- Rijkswaterstaat
- Port of Rotterdam
- Three Water Boards
- (Bigger) Municipalities : Rotterdam and Dordrecht
- Safety Region
- Province of South Holland



## 1. Defence is the basic of our defence

- Maintain and strengthen our flood defences and storm surge barriers
- Research of replacement of the storm surge barriers
- River as tidal parc
- Room for the Rivers

## 2. Spatial planning

- Adaptation strategies for the outer dike harbour areas
- Adaptation strategies for the urban outer dike areas
- Spatial measures in inner dike areas where needed

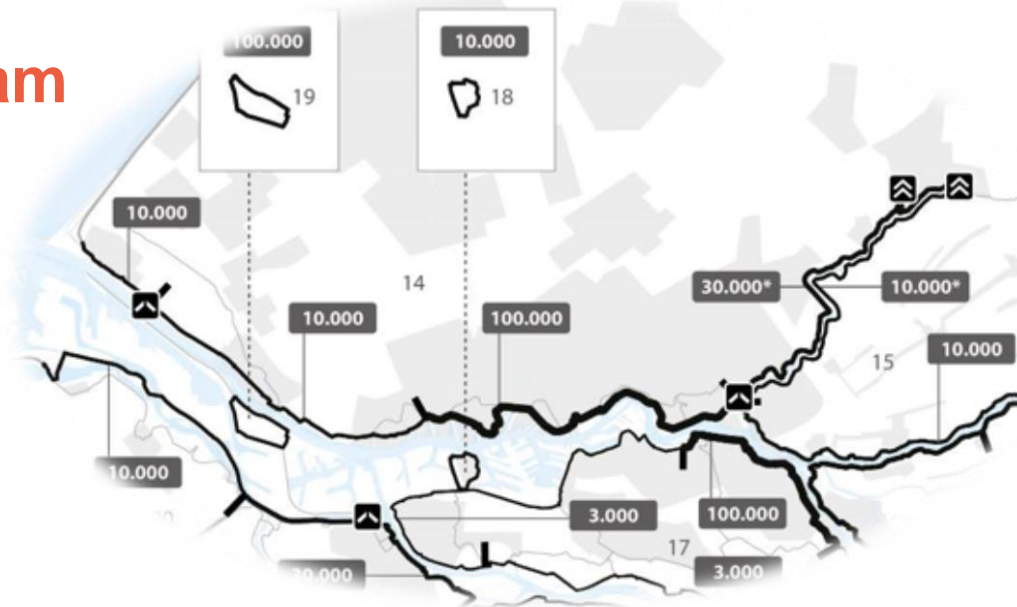
## 3. Crisis

- Evacuation strategies
- Research about impact of flooding

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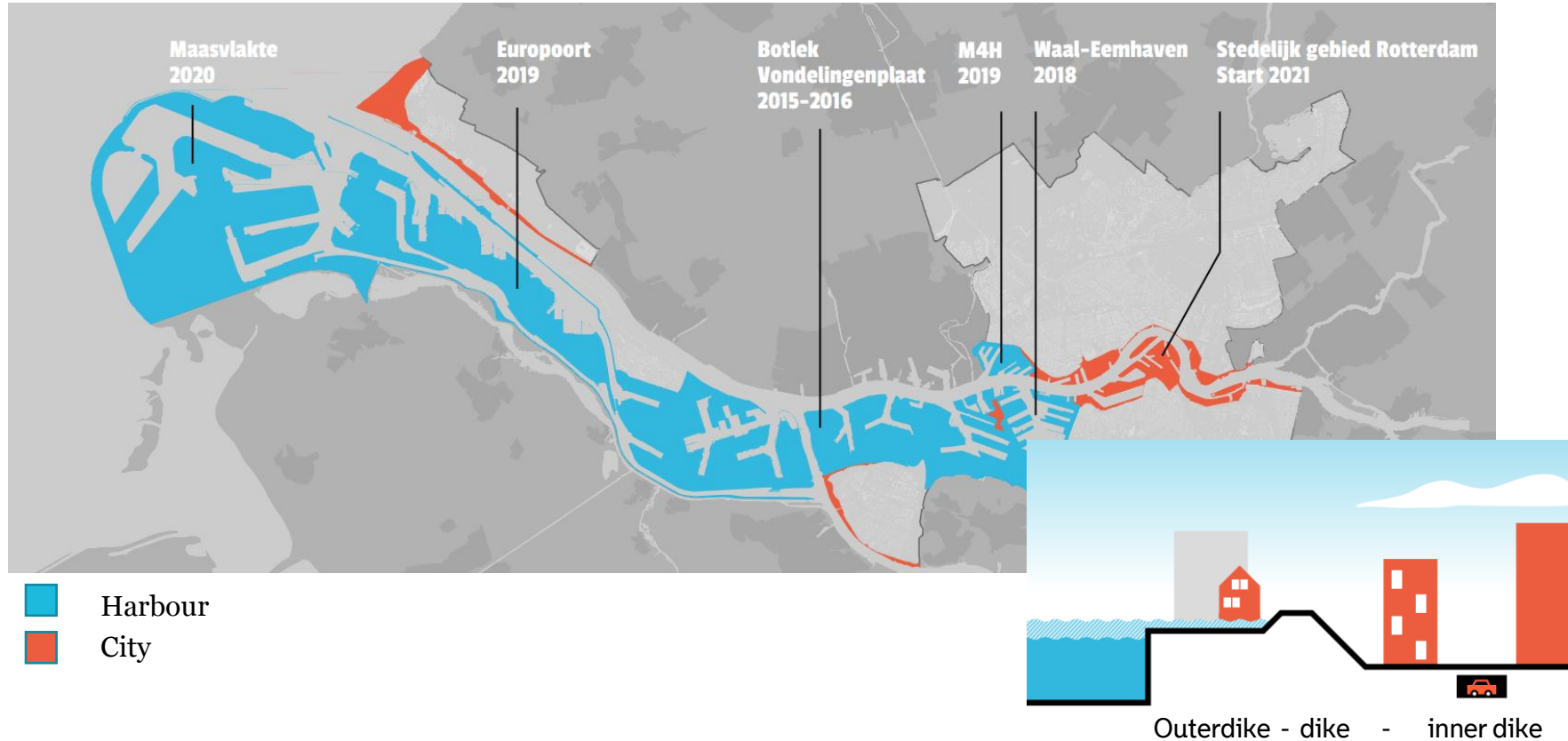
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# Adaptation strategies for the outer dike areas



# Port: Strategies completed

- Last strategy finished: Maasvlakte
- Integral strategy for PoR area
- Flood Risk Management completely embedded in PoR project management method
- Next steps: focus on external communication – support tenants with information and implementation of Flood Risk Management in their project & design philosophy

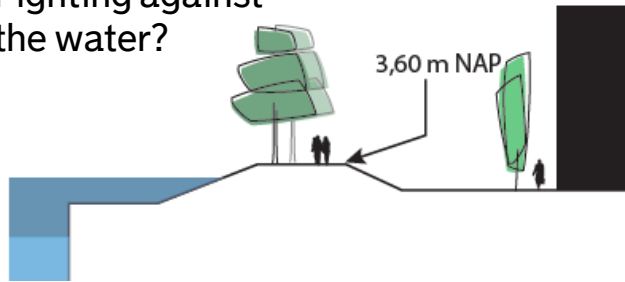


Maasvlakte strategy

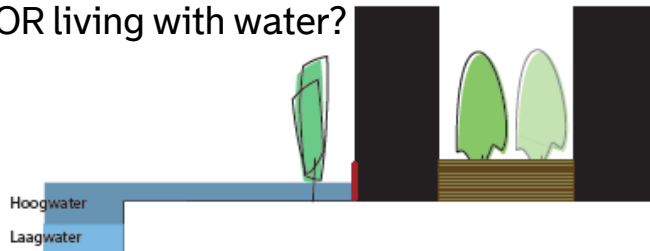
# City: Starting the first strategy

For each outer dike area ...

Fighting against  
the water?



OR living with water?



Challenge:  
bring the city planners  
and architects and  
engineers together

# Thank you

**Dutch Delta Program:**

[Home | Delta Programme \(deltaprogramma.nl\)](#)

**Port of Rotterdam flood risk strategies:**

[Flood Risk Management | Port of Rotterdam](#)

**Rotterdam Weather Wise climate adaptation program:**

[Rotterdam Weatherwise Urgency Document](#)

