Successful implementation of nature-based solutions in Rotterdam

Paula Verhoeven
Director Urban Development
City of Rotterdam

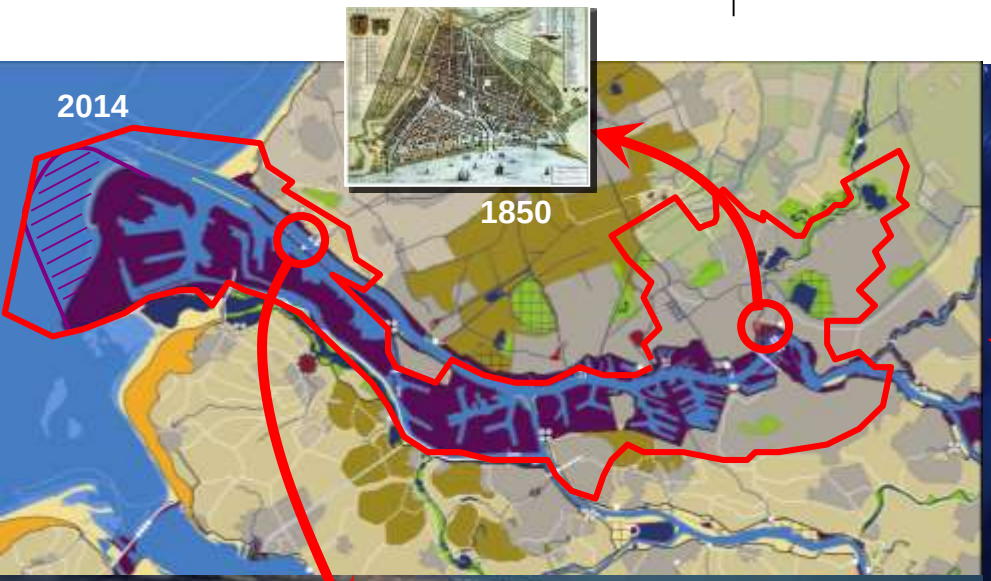
Rotterdam

City

Area :	320 km2
Population:	615.000
Nationalities:	176
Municipal Budget:	4,2 billion Euros
Sewer system:	3000 km

Port

Area:	105 km2 (50 km2 commercial sites)
Length of port area:	40 km
Direct employment:	over 70,000 jobs
Goods throughput:	over 400 million tonnes of goods per annum
Shipping:	33,000 sea-going + 110,000 inland vessels/yr

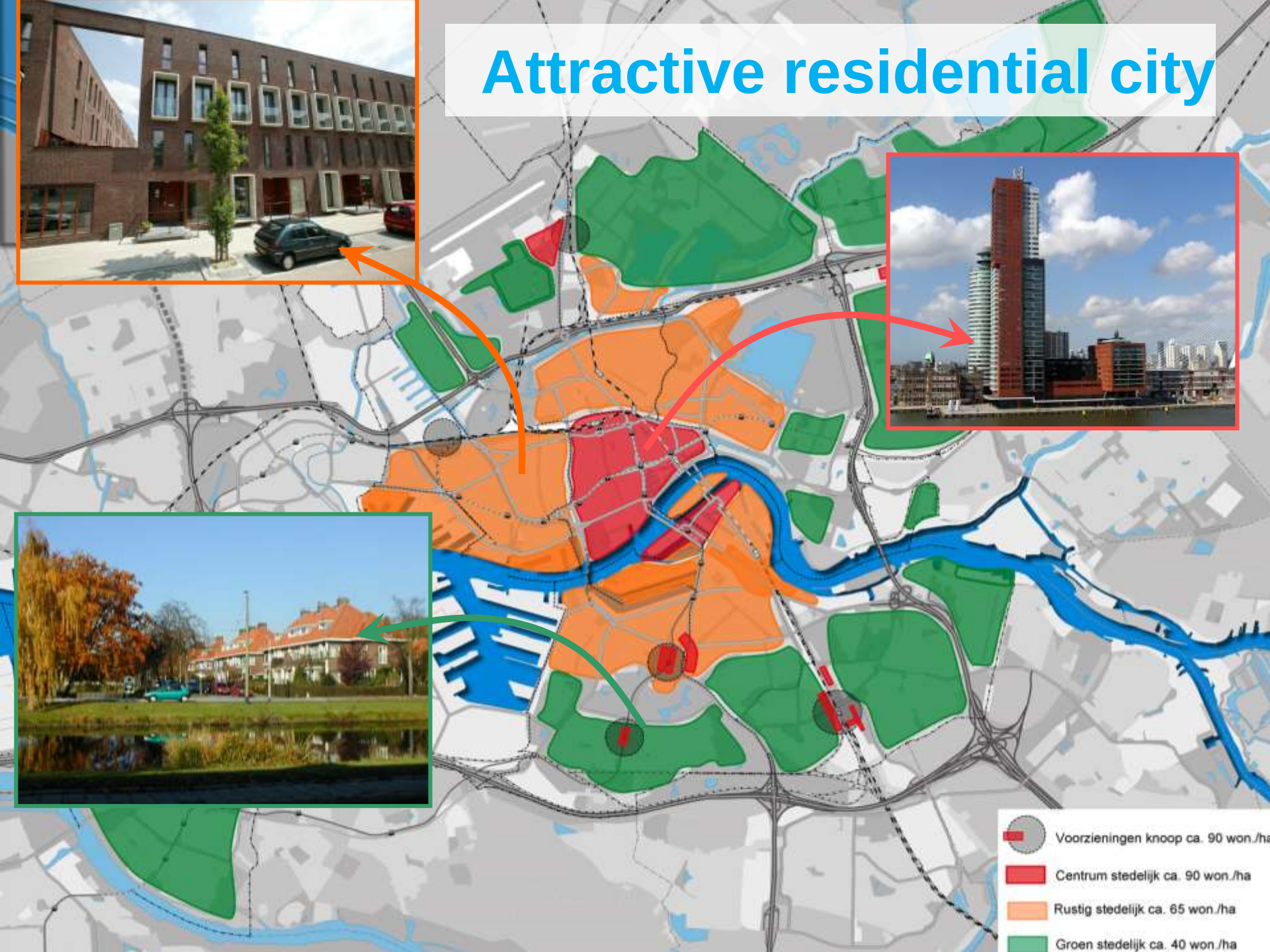


Rotterdam: city in the Meuse-Rhine delta

May 1940: harbour & city centre destroyed

lots of modern architecture

Attractive residential city



Challenges

High concentration of people, low density of green areas

Climate adaptation: stay consistent

2001

2005

2007

2008

2010

2013

2014

URBAN BY NATURE IABR-2014-

THE ROCKEFELLER FOUNDATION

THE ROCKEFELLER FOUNDATION
100 RESILIENT CITIES
CENTENNIAL CHALLENGE

2014

Water ----------

+ Spatial Planning ----------

+ Climate Change ----------

+ Resilience (wide spectrum) ---------

Solutions

Multifunctional solutions

Waterssquare Benthemplein

Innovative solutions: multifunctional use of public space

Watersquare Bellamylein

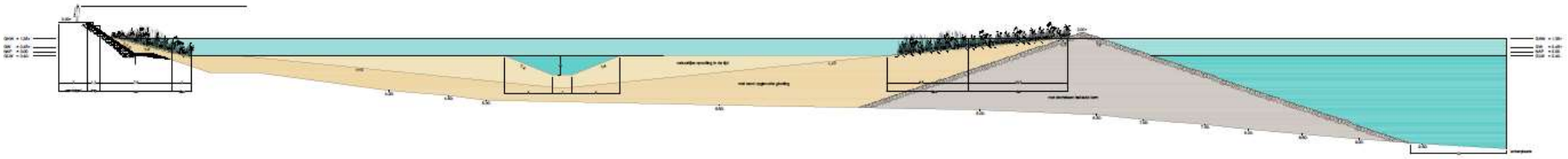
…Temporary storm water storage

Green roof program & community involvement

Innovations: Floating Pavilion, Parc and Tree

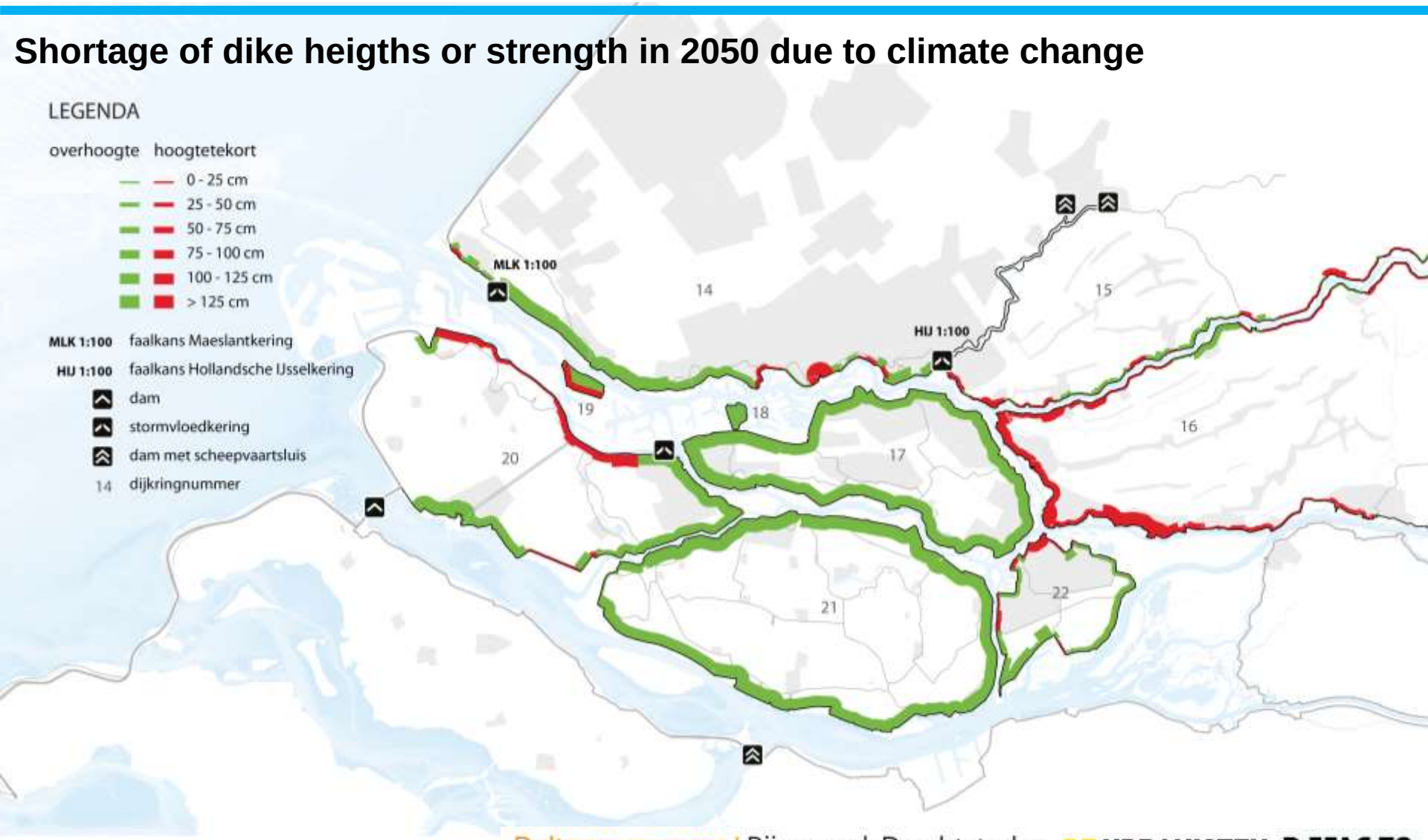
Tidal channel / gully at Mallegat

Soil remediation + redevelopment park



Next generation: nature-based solutions

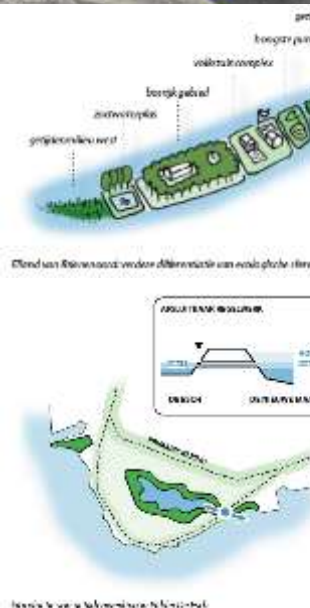
Shortage of dike heigths or strength in 2050 due to climate change



Deltaprogramma | Rijnmond-Drechtsteden DE URBANISTEN D.EFAC.TO

Building with nature contributes to water safety

Tidal park Esch and Eiland van Brienenoord (Brienenoord Island)



Thank you for your attention