



DELTA IN TIMES OF CLIMATE CHANGE II
INTERNATIONAL CONFERENCE
 OPPORTUNITIES FOR PEOPLE, SCIENCE, CITIES AND BUSINESS
 ROTTERDAM THE NETHERLANDS, 24 - 26 SEPTEMBER 2014

Welcome

25 september 2014

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Workshop

Rijkswaterstaat Room for the River presents:

*Learning from flood resilient cities Nijmegen and Mainz,
 combining flood management and urban development*

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Jan van der Grift

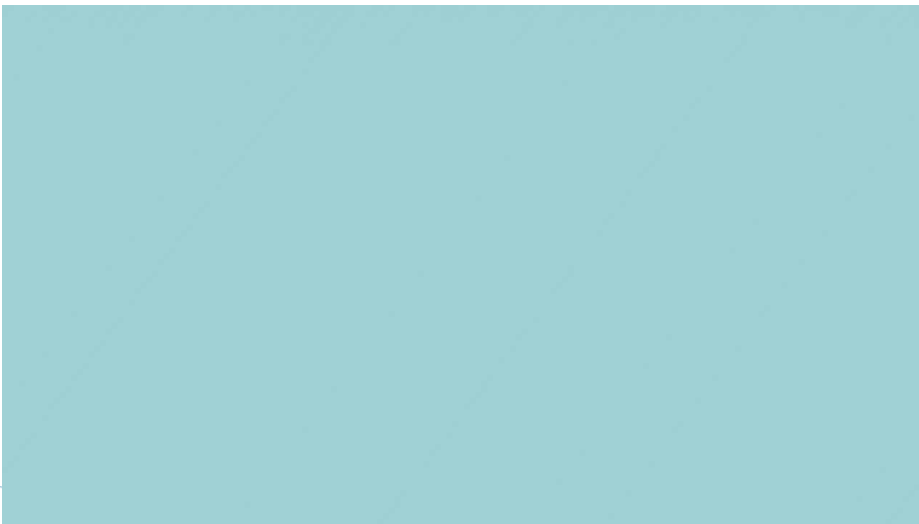
- Urban planner and landscape architect
- Senior advisor spatial quality and secretary quality team
Rijkswaterstaat Room for the River
- Contact jan.vander.grift@rws.nl



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Rijkswaterstaat Room for the River



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Rijkswaterstaat Room for the River

- Flood protection programme at more than 30 locations in Dutch river delta
- Flood protection *and* spatial quality

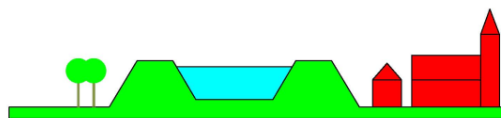
Website www.ruimtevoorderivier.nl
 Twitter [@RuimtevdRivier](https://twitter.com/RuimtevdRivier)
[#RuimtevdRivier](https://twitter.com/RuimtevdRivier) / [#RoomfortheRiver](https://twitter.com/RoomfortheRiver)

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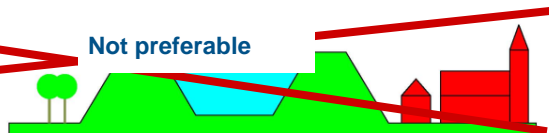
Room for the River

Present situation

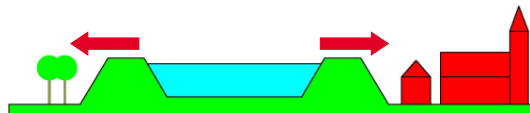


Old method, raising dikes

Not preferable



More space for water



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Workshop outline

15.50-16.00	General introduction
16.00-16:15	Case Nijmegen
16.15-16:30	Case Mainz
16.30-17.00	Work in groups on statements
17:00-17:30	Group results and discussion

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Case Nijmegen

Mathieu Schouten

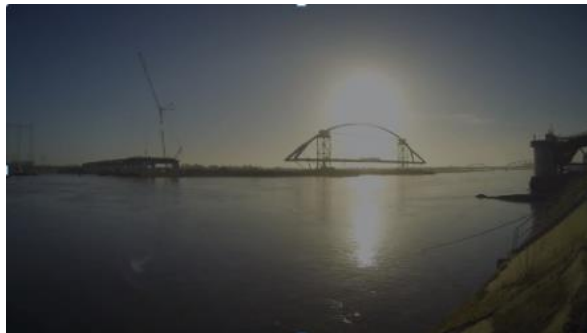
- Senior landscape architect city of Nijmegen
- Contact: m.schouten@nijmegen.nl

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Nijmegen embraces the river



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Integrating flood management and urban quality

- from project to people
- from engineering to living environment
- from isolated tot integrated design solutions
- recognition of diversity and identity
- designing with nature



....a beautiful bend of the river....



....a beautiful bend of the river...with high water level.



Johan Roerink / aeropicture.nl

....a beautiful bend of the river...with a floodchannel



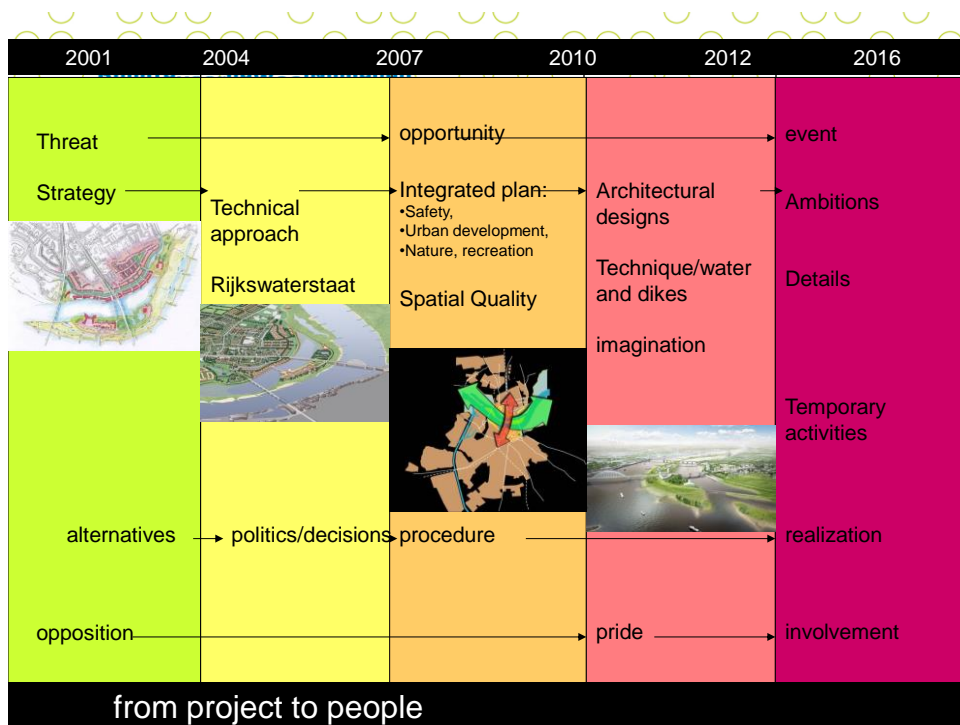
“Room for the River Waal”

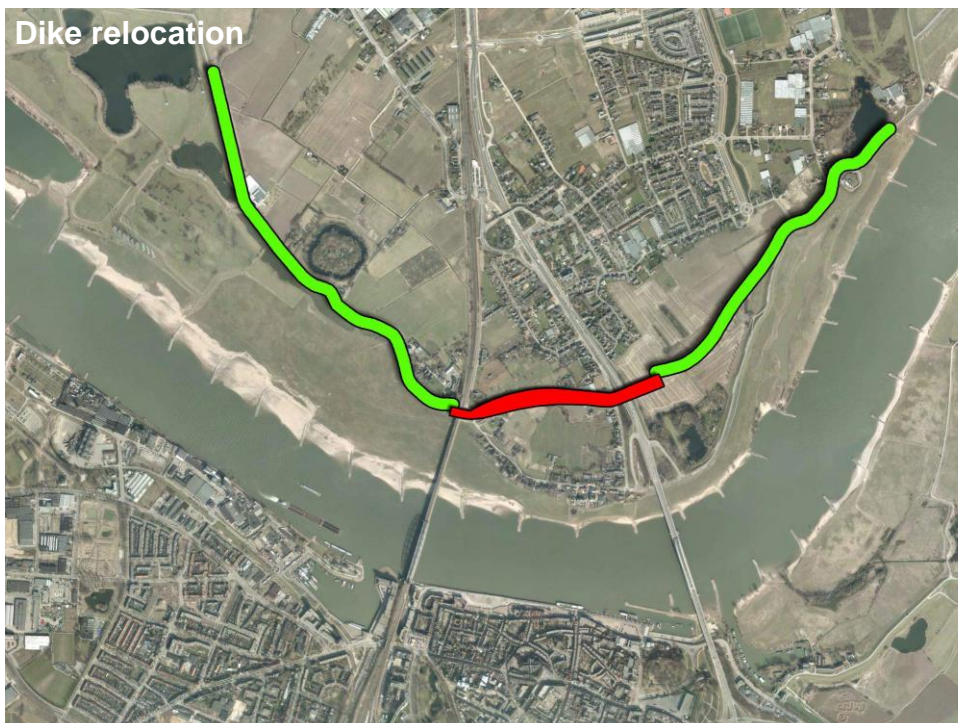
Twin focus:

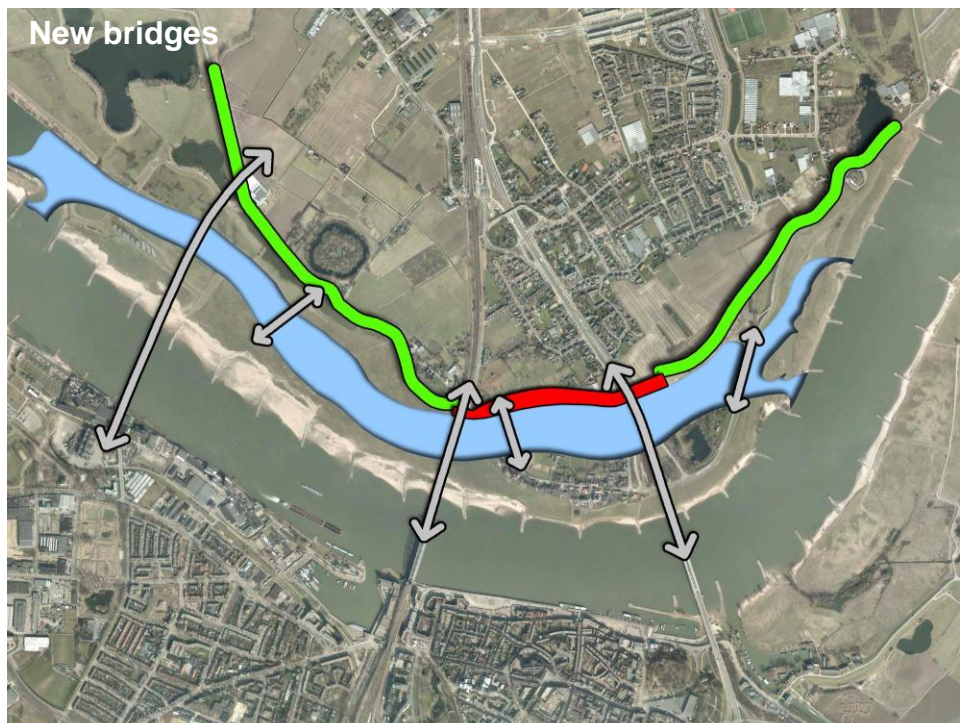
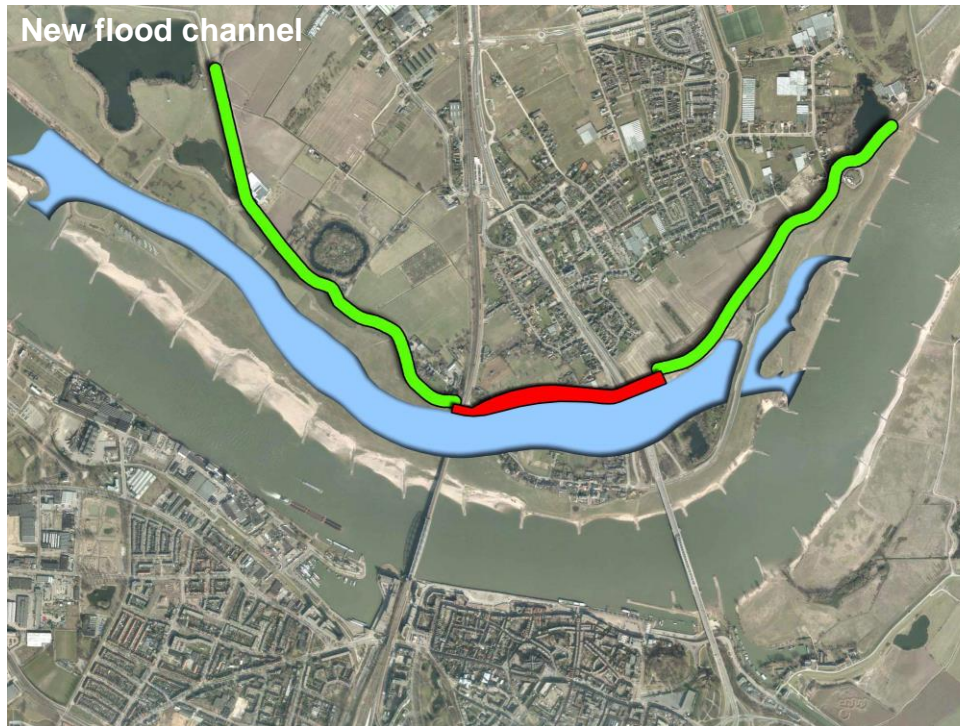
“To protect Nijmegen and its backland from future floods and to increase the urban (spatial) quality”

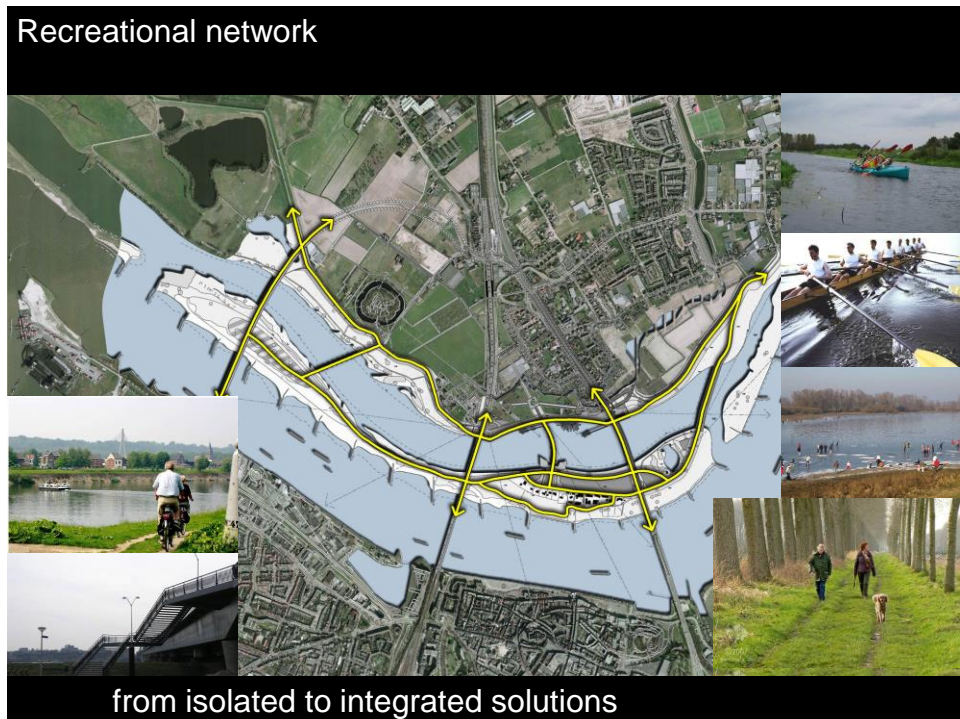
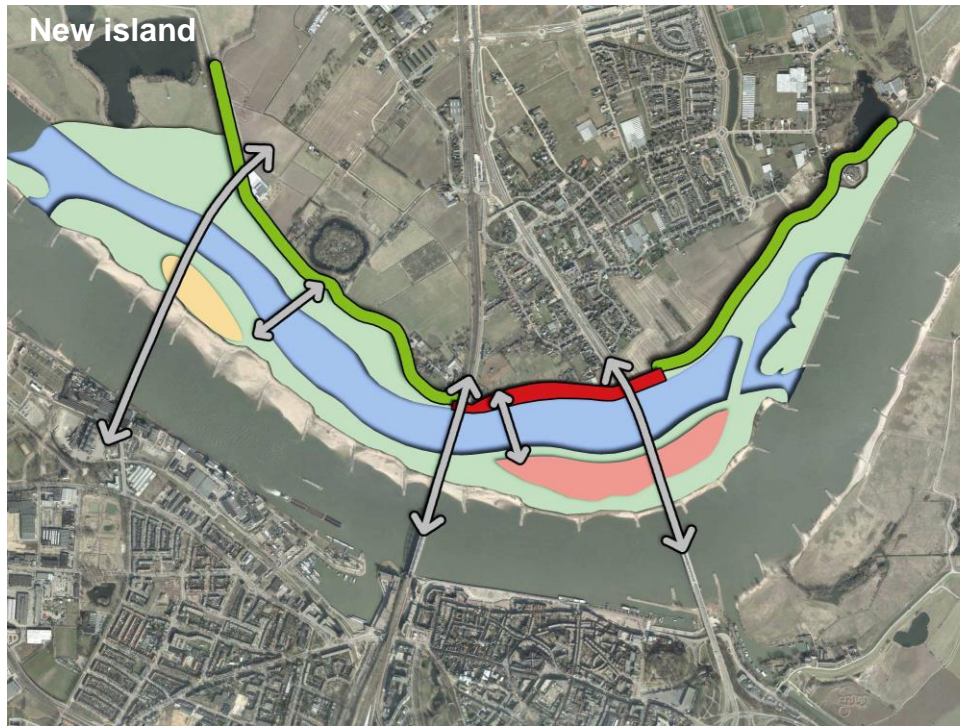
Figures:

- River discharge is increasing: 15.000 m³/s → 16.000 m³/s
- Displacement of 50 households
- Costs: € 358 million
- Area: 250 hectares
- Ready: 2016

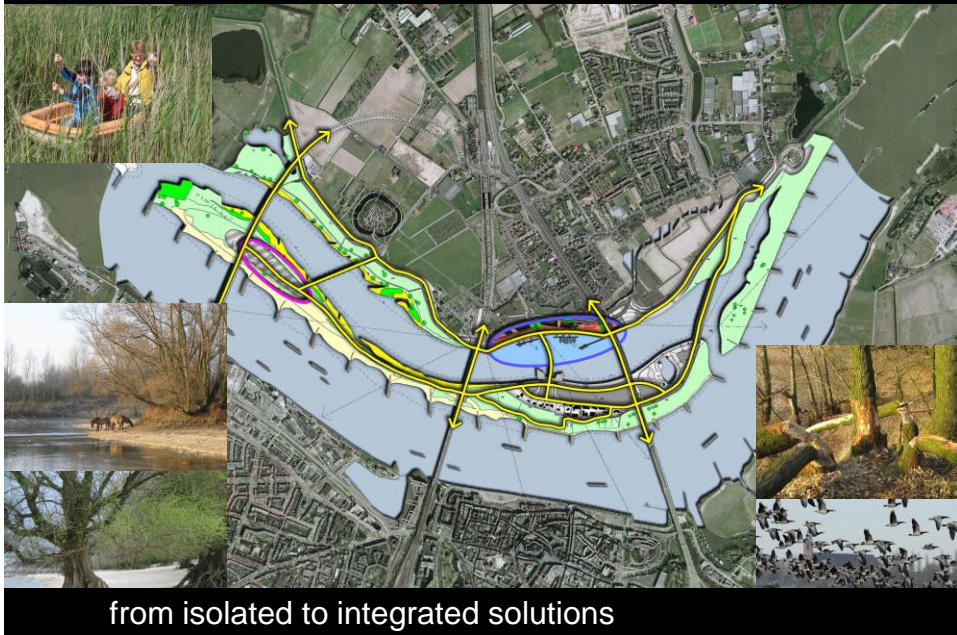








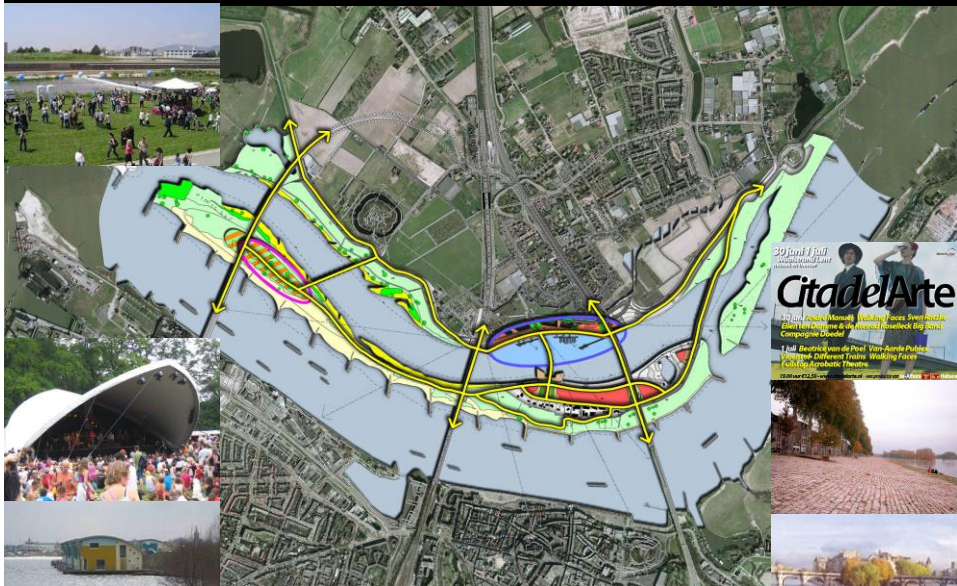
Forelands of the river : nature development



Cultural heritage

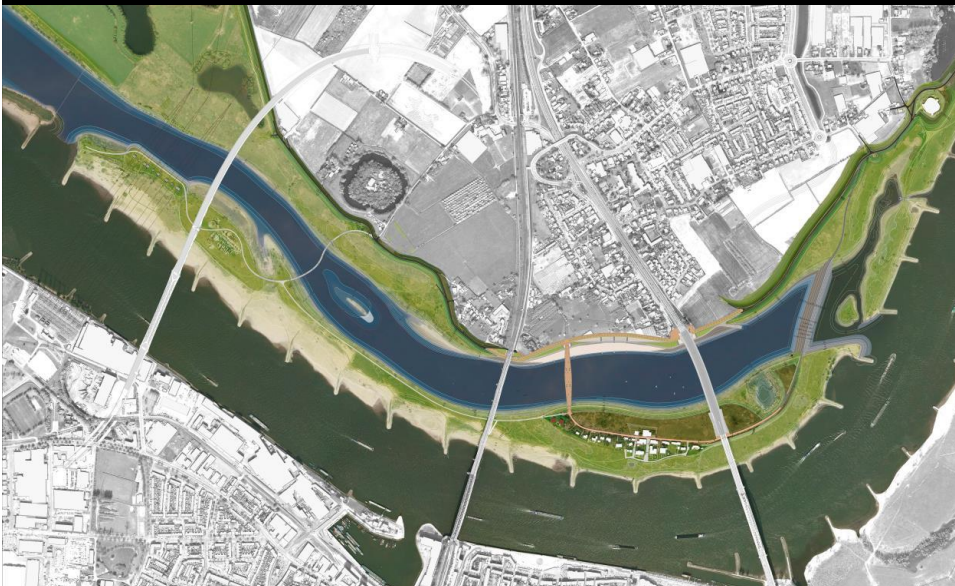


Future events



recognition of diversity and identity

an urban Riverpark

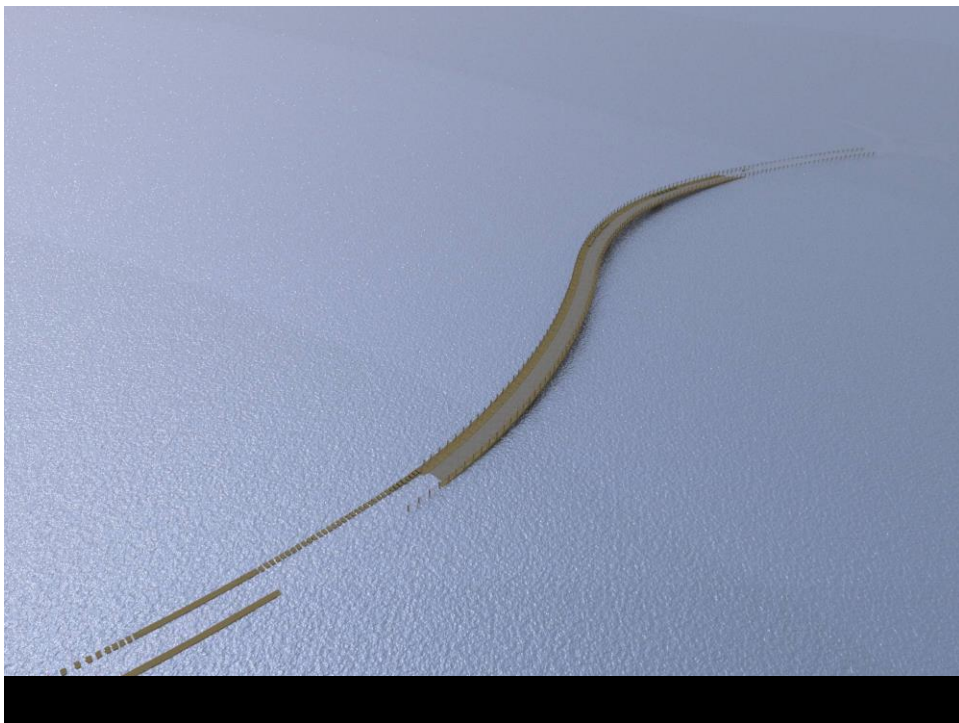


integrated design: what wants the river itself?



New situation
Ruimte voor de Waal Nijmegen







Our succes is due to:

- our dual focus: integrating water safety with urban development
- the cooperation between national and local governments
- international cooperation proves to be inspiring
- our early consultation with stakeholders and a transparant planning process

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Zollhafen Mainz

Flood Management and Urban Design, Rotterdam 25 Sep 2014

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Heinrich Webler, Dipl.-Ing.
icon international consulting Mainz, Germany
www.webler-icon.de



Flood Management Coordinator for
Stadtwerke Mainz AG project
Zollhafen Mainz:

Conversion of a harbour area to a new city quarter
in a flood risk zone

Mainz Zollhafen at the waterfront



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ZOLLHAFEN
Mainz In Rheinkultur

Zollhafen Mainz: Conversation of a harbour area to a city quarter

1. Short outline – the project, the challenge difficulties in the beginning
2. Successes and failures

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The challenge



Project site:

Zollhafen Mainz, one of the largest container ports on the Upper Rhine, photo 2008.
Has been moved to a place directly adjoining the Zollhafen downstream in 2010.

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The challenge



Masterplan

- New city quarter Zollhafen Mainz in a flood risk zone
- appr. 2.500 inhabitants and appr. 4.000 jobs
- Attractive public spaces close to the water
- The Rhine and the city quarter Zollhafen in good neighbourhood



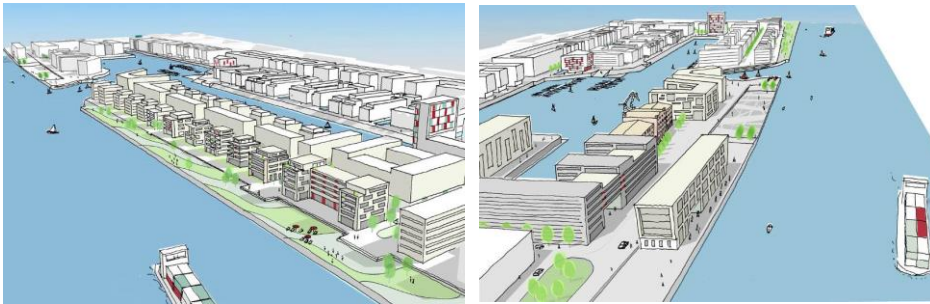
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The challenge

Potential buildings in one of the biggest investments in the State of Rheinland-Pfalz, hydrological frame conditions:

- Retention capacity has to be maintained
- Existing flood defence for neighbouring Mainz-Neustadt has to be ensured
- Buildings have to be developed flood-adapted (resistant and resilient)
- Promoting preventive measures: flood management guidelines



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The challenge

Guidelines for the developers and the inhabitants, 2013:

Developer's Guide for all investors:

- Spatial demands and possible solutions
- Legal parameters how to attain a building permit
- Reference projects
- glossary

Flood Management Guide for people who will live or work in the new Zollhafen quarter:

- 10 questions about the flood risk and its management.
- Requirements of the EU Floods Directive.
- To strengthen the inhabitant's AWARENESS of the flood risk and to give information about the ASSISTANCE provided by the City of Mainz.

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The challenge

Flooded zones and evacuation routes:

- Flood above 1/100 year flood: streets will be flooded
- Buildings can be used (like Islands) furthermore
- Evacuation routes (yellow) have been elevated and can be passed by emergency service vehicles

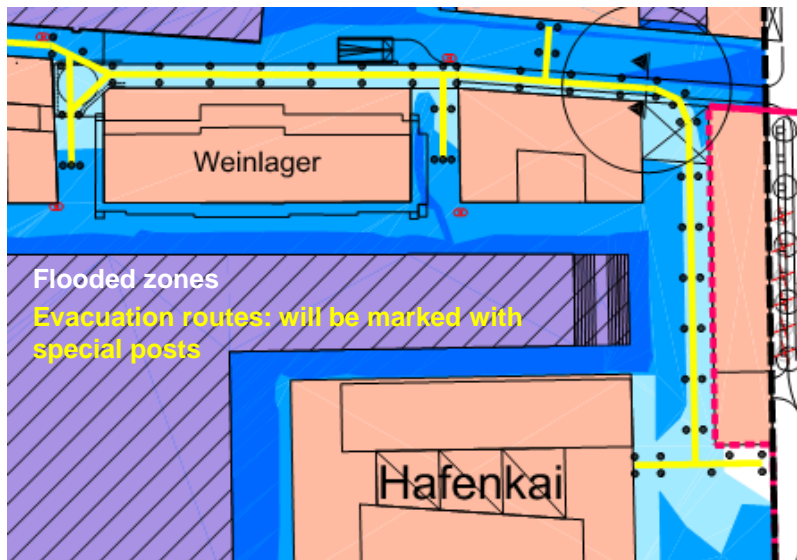
Zustand HW 200 + 30 cm, Pegel Mainz 8,63 m



icon



The challenge



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Successes

High interest of investors in developing the 25 construction sites. See the winning designs of the architectural competitions for public places and 3 sites (published in a newspaper in 2014):

Public space on southern quay



Dieses Computerbild zeigt den Entwurf für die Gestaltung der Uferpromenade auf der Südmole, mit dem das Berliner Büro Sinai im April beim Freiraumwettbewerb den ersten Platz belegt hat. Computergrafik: Sinai

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Successes



Flood resilient development of a building standing on the quay wall

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Successes



Construction site on the southern quay

icon

Successes



These buildings are part of the flood defence line (protecting Mainz-Neustadt)

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Successes and possible failures

Planning works for the first sites are running:

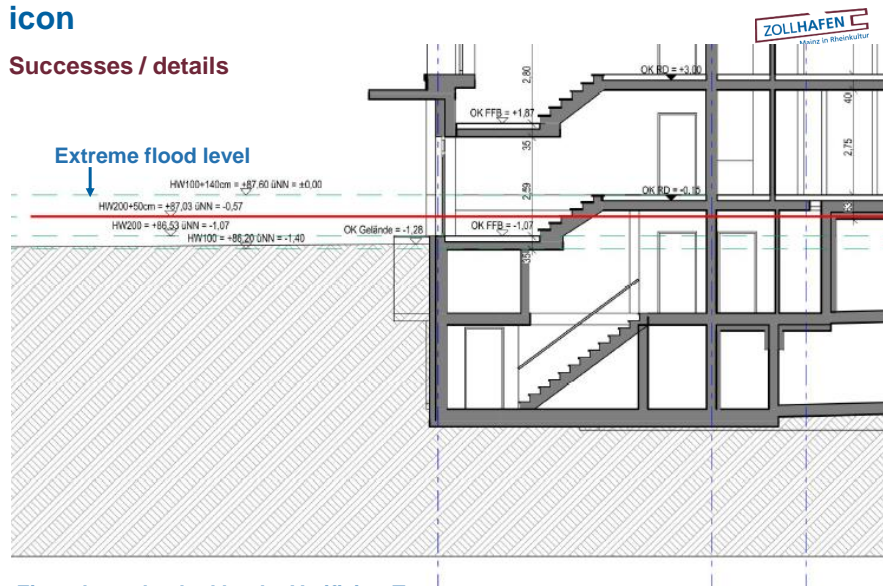
In this case German law gives no possibility to include the flood risk requirements into the permission conditions for the development plan or for the building permission (flood risk zone - but no official flood plain by law).

How to guaranty that developers include flood adaption? (bad experiences)

- City of Mainz, regional Water Management Administration, Zollhafen Company, and icon form a „Verifying Team“:
 - Plans will be checked if they are flood adapted (following a check list)
 - Developer obtains constraints
 - Has to modify the plans if necessary
 - Plans will be signed by the members of the Verifying Team
 - Developer submits the signed plan to the permission administration
- No building permission without this procedure.

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Successes / details



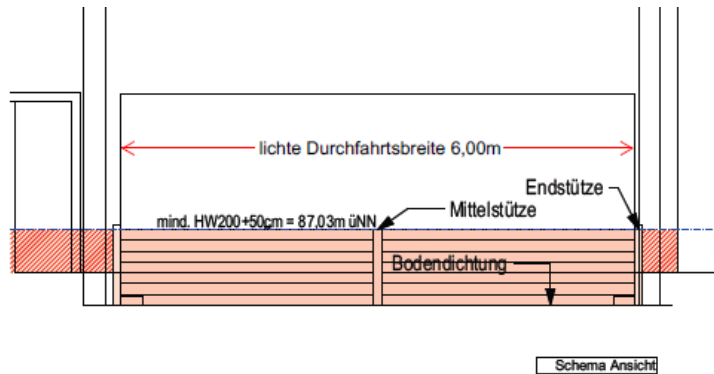
First plans checked by the Verifying Team:

- water cannot enter into the living areas or into the subterranean garage

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Successes

ZOLLHAFEN
Museum in Rheinkultur



Entrance of the subterranean garage can be closed (mobile flood defences)

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Challenges, successes and possible failures

ZOLLHAFEN
Museum in Rheinkultur

Thank you

Let's get to work!

Reflect on statements in groups:

- Find opportunities where both technical and design needs are met
- Team consists of both technical and urban oriented people
- Concrete examples



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Statements

1. Designers are not part of technical planning they are only there for aesthetic purposes
2. Designers only add to the expenses
3. In the end, safety is all that matters



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Team results

- What was the eye opener in your discussion?
- Which problem turned into an opportunity?
- Did you find any key factors for success?
- Where do technics and design do not go together?



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International perspective on results

Craig Woolhouse

- Deputy Director Flood Incident Management, Environment Agency UK
- Contact: craig.woolhouse@environment-agency.gov.uk



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Thank you!

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