

WATERSENSITIVE URBAN DESIGN



DE URBANISTEN



Dirk van Peijpe
Oslo - June 17th 2019



Last week's cloudburst



55 mm / hour

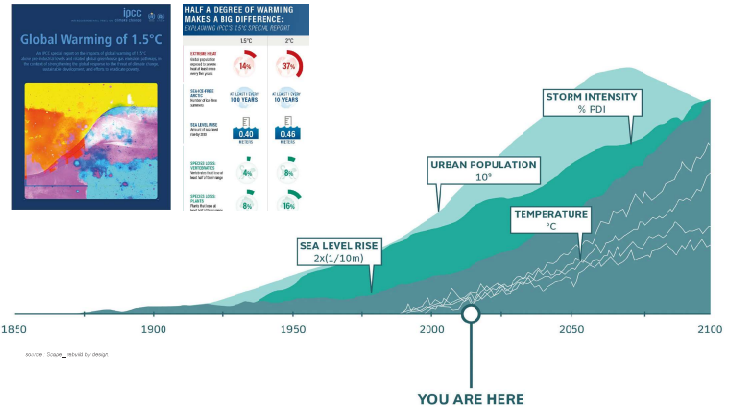
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Climate change ?



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Climate change - it's real and here



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Climate change - water as a threat

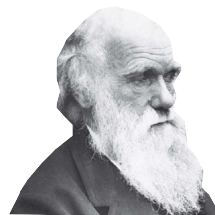


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We need to be more adaptive to be able to survive



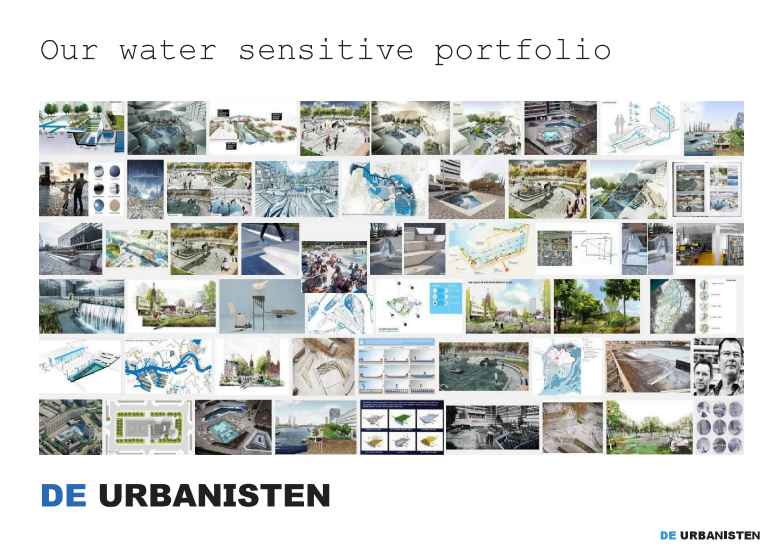
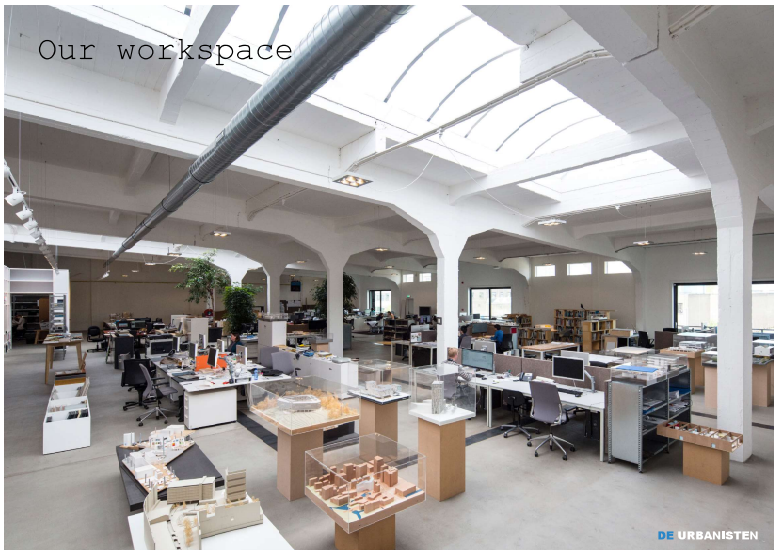
architecture without architects



"It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change."

Charles Darwin

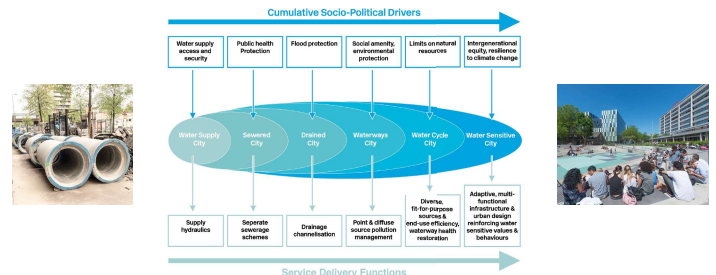
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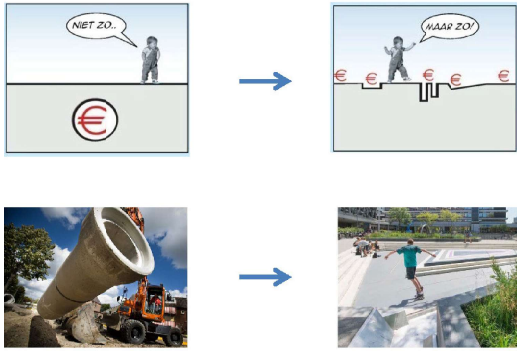
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Towards more watersensitive cities

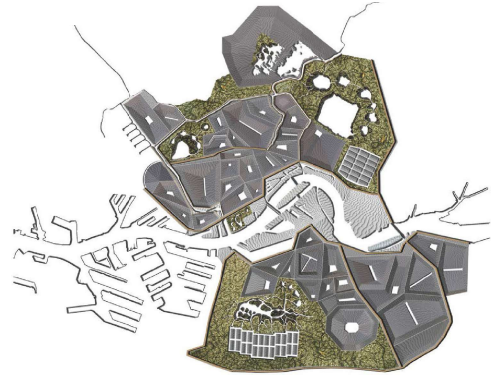


No pipesbut people



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A watersensitive city holds its own water



Rotterdam Watercity 2035

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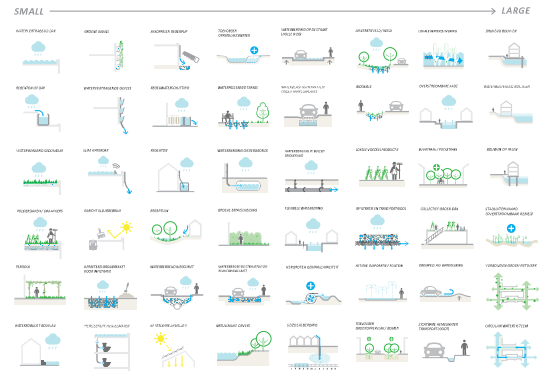
A watersensitive city holds its own water



Tavsenspark Copenhagen (De Urbanisten & Effekt)

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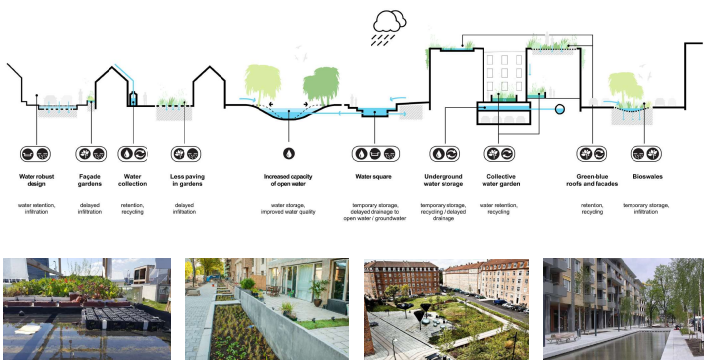
A watersensitive toolbox



Toolbox Watersensitive cities (De Urbanisten)

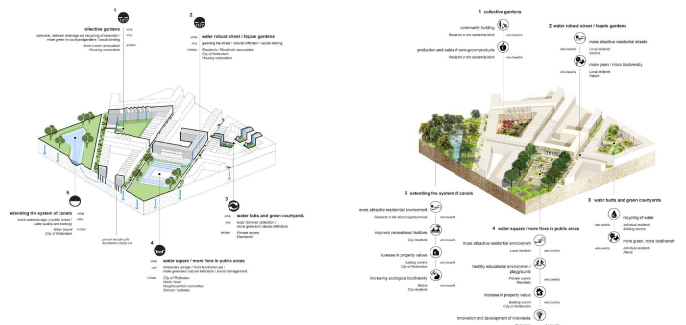
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The rainwater cascade



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The added values of watersensitive cities



Watersensitive system

Added values

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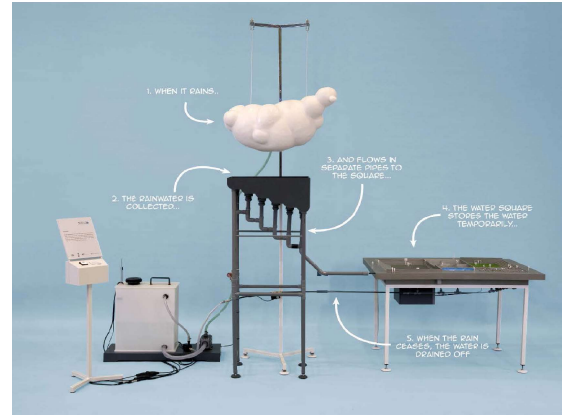
The added values of watersensitive cities



Watersensitive Leiden (NL)

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WATERSQUARES



Model: Jeroen Bodewitz

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Watersquare Benthemplein



Photo: Oezip van Duivenbode

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Waterstorage + public space



Photo: Jeroen Maach

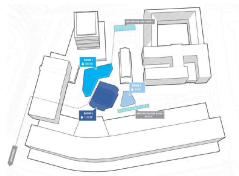
Watersquare Benthemplein (De Urbanisten)

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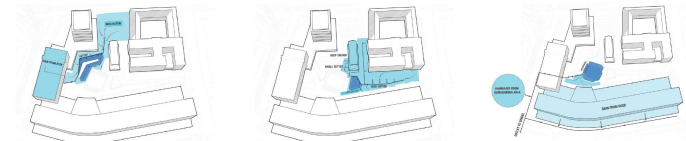
Places for temporary waterstorage



Photo: Faleh Azar fare



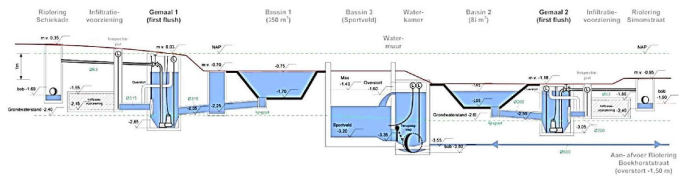
Total capacity 1700 m³



Catchment areas

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A fine piece of water engineering

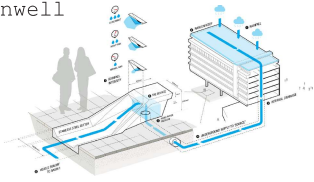


Section over the watersquare Benthemplein (Ingenieursbureau Rotterdam)

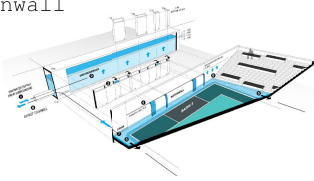
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Orchestration of the rainwater

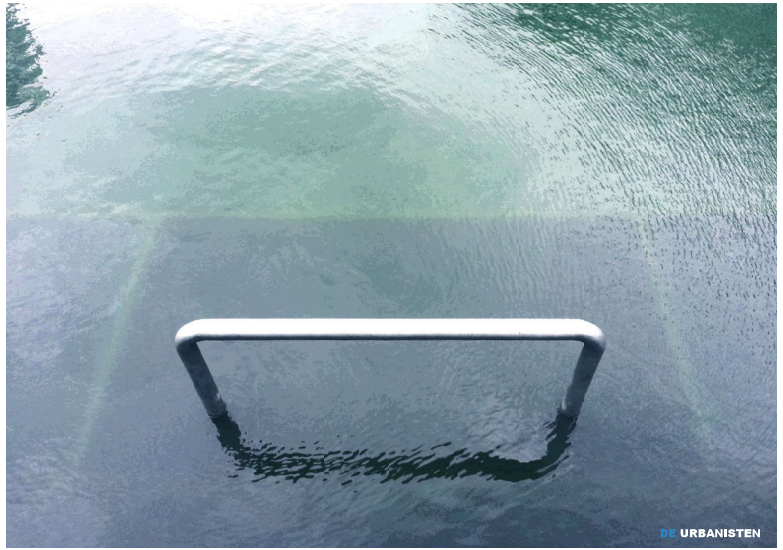
Rainwell



Rainwall



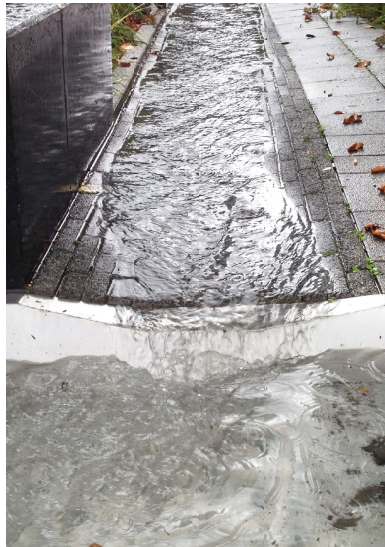
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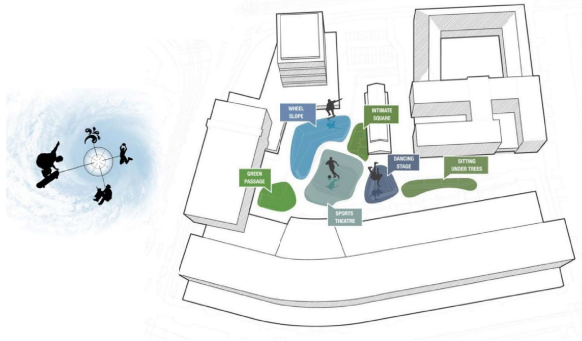
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Photo: Mimi Pevsah

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A place for all to enjoy and meet



Organisation of activities Bentheplein

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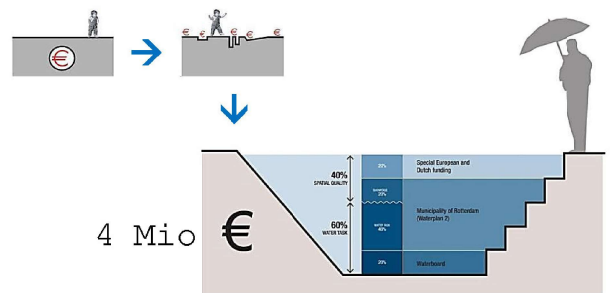
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Doing more with the same money



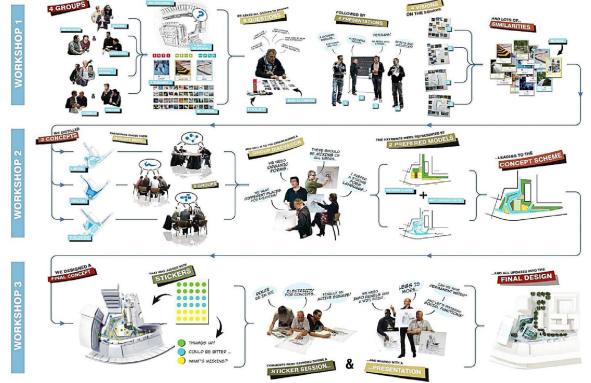
The 'no silo' watersquare team



Watermanagement / Construction / Road works / Health Department
 Geotechnics / Maintenance hard surfaces / Greenery and Maintenance
 Public lighting / Planning Department / Communication / Design

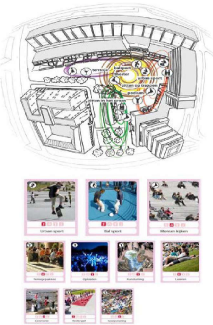
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Create an open design proces



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Create an open design proces



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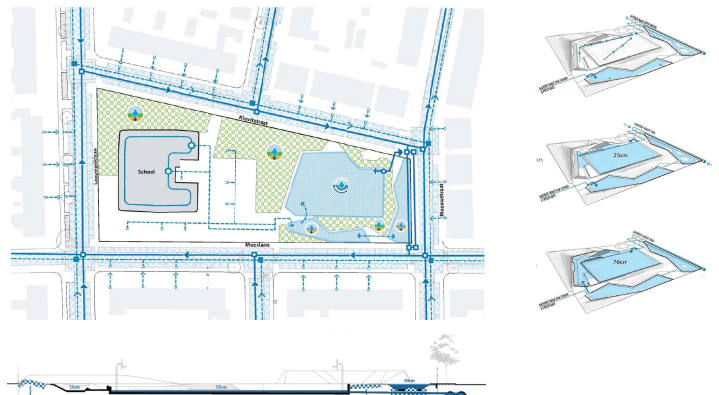


The watersquare in Tiel - plan



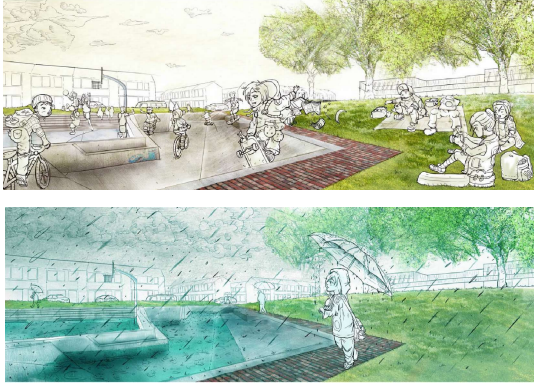
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The watersquare in Tiel - water



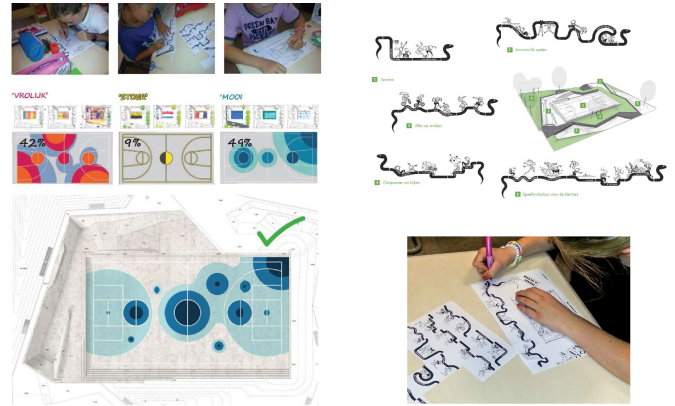
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The watersquare in Tiel



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The watersquare in Tiel



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foto: Milad Pallesh

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The watersquare in Tiel



foto: Milad Pallesh

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The watersquare in Tiel



Photo: Jan Bouwhuis

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A Family of watersquares



Rotterdam (SO-Rotterdam)



Copenhagen (GHB)



Rotterdam (SO-Rotterdam)



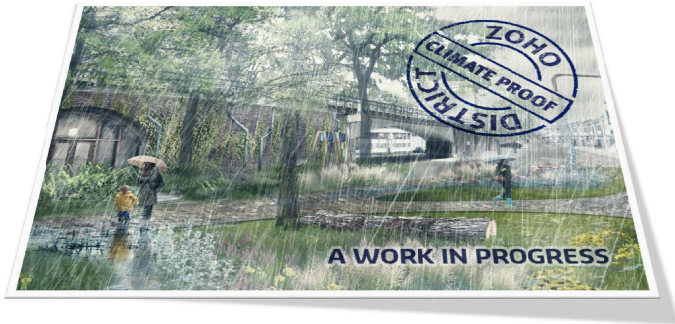
Den Bosch (RHDHV)

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WATERSENSITIVE DISTRICTS

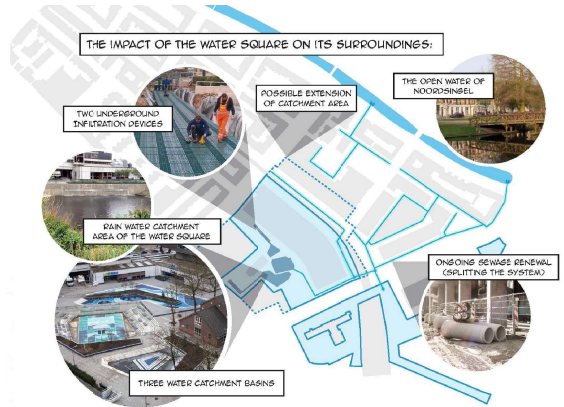
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ZOHO climateproof district



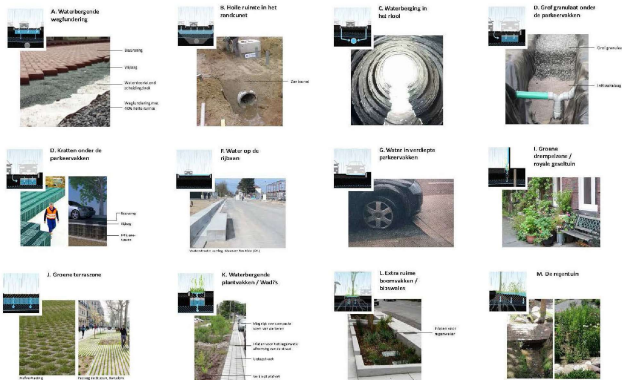
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ZOHO watersensitive district



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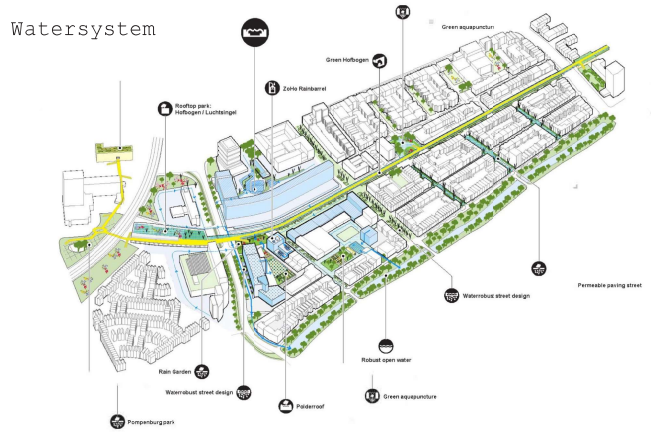
ZOHO watersensitive district



Toolbox for a watersensitive district

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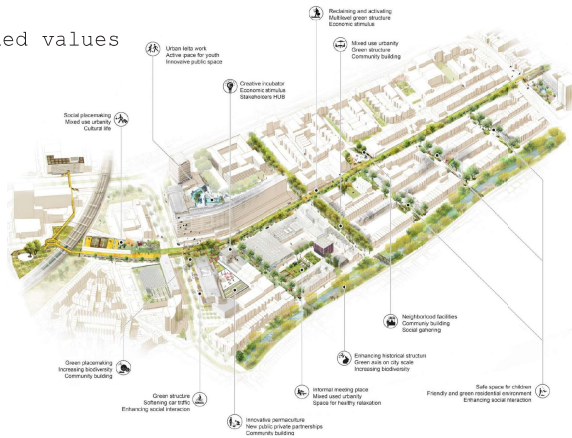
ZOHO watersensitive district



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ZOHO watersensitive district

Added values

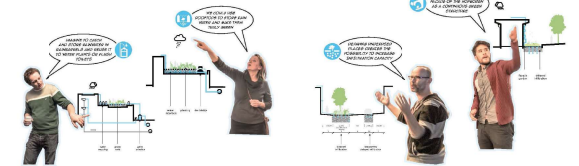


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ZOHO watersensitive district



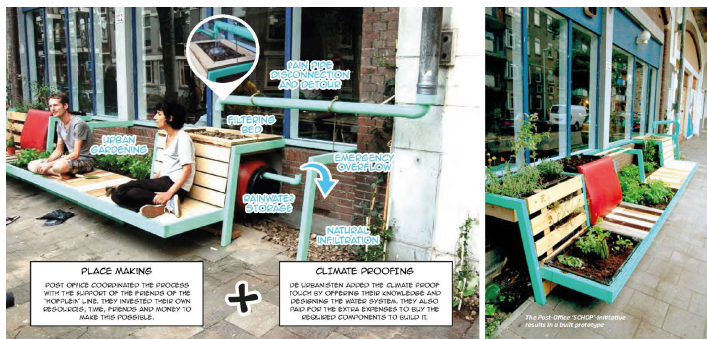
TOGETHER WE CAME UP WITH SOME BRIGHT IDEAS



A coalition of the willing - full of ideas

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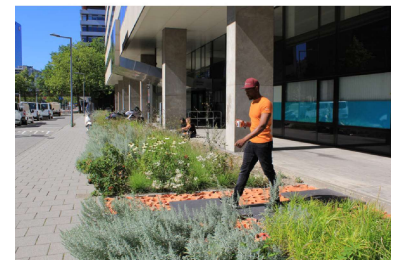
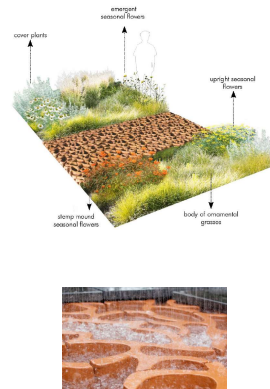
The Post-Office frontgarden



Design by Post-Office with De Urbanisten

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The ZOHO rain(a)way garden



Design by De Urbanisten / Rain(a)way pavement by Fien Dekker

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The ZOHO rain(a)way garden



Design by De Urbanisten / Rain(a)way pavement by Fien Dekker

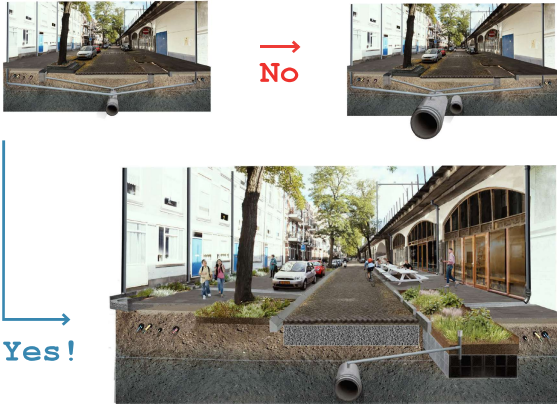
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The ZOHO rain(a)way garden



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The ZOHO rainstreet



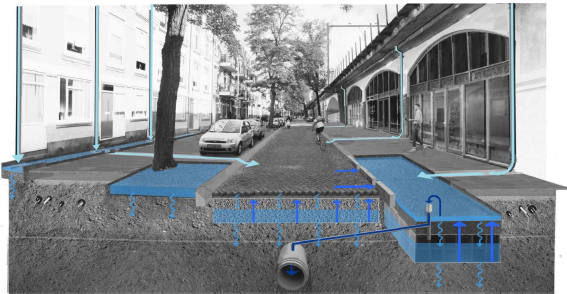
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The ZOHO streets of today



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The ZOHO rainstreet



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Is a green street for ZOHO



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The ZOHO guerilla raingarden



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The ZOHO guerilla raingarden



The garden was realized with the help of the local community in only a week time (initiative by De Urbanisten)

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The ZOHO raingarden



The ZOHO Raingarden - rain situation (De Urbanisten)

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The ZOHO raingarden



The ZOHO Raingarden - dry situation (De Urbanisten)

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The large ZOHO raingarden

* First design by De Urbanisten / Final design by Municipality Rotterdam

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More information:
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