

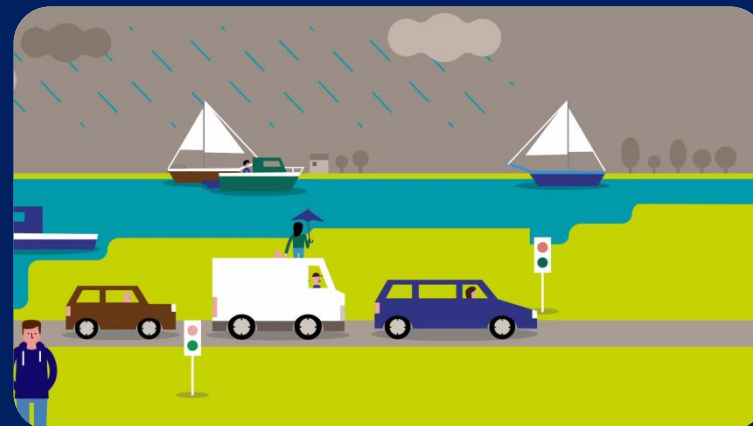
TOEKOMSTVISION

BIG WATER DATA



DIGITAL DELTA: What is it?

The on-going cost of managing water, including anticipating **floodings**, **droughts** and **low water levels**, adds up to **€7 billion** each year.



DIGITAL DELTA: How wil it help?

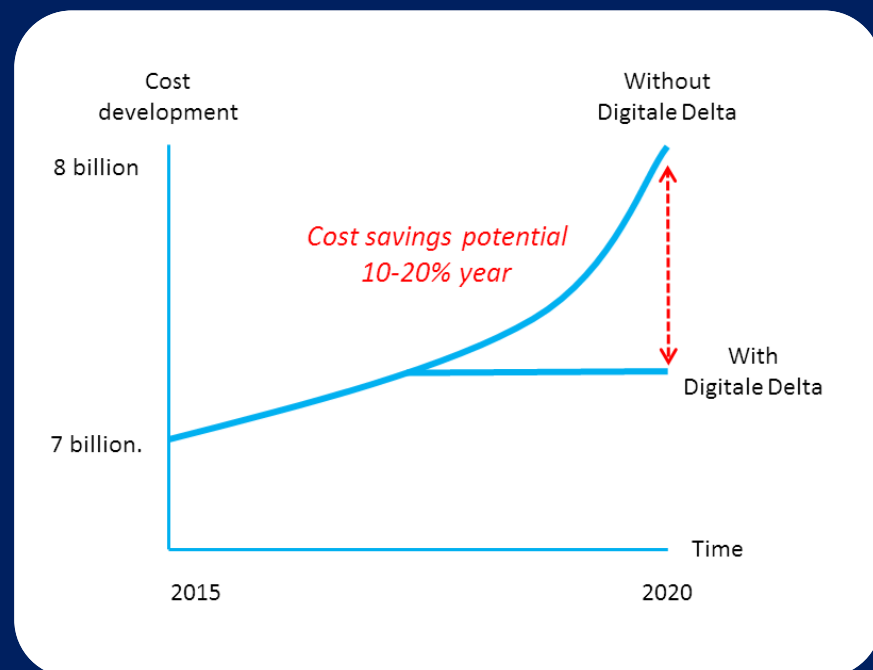


URGENCY

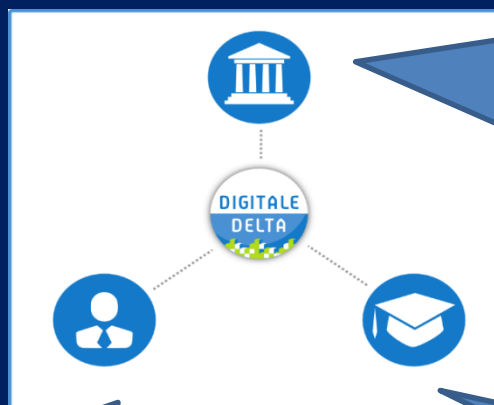
Water Management Cost NL now 7 billion/year

Expected cost will rise to 8 billion/year

What if all water related data is accessible and findable for all?



Impact



- Better decisions
- Reuse
- Interoperability private products & public operation processes
- Insight in bigger system (approach)
- New scalable solutions

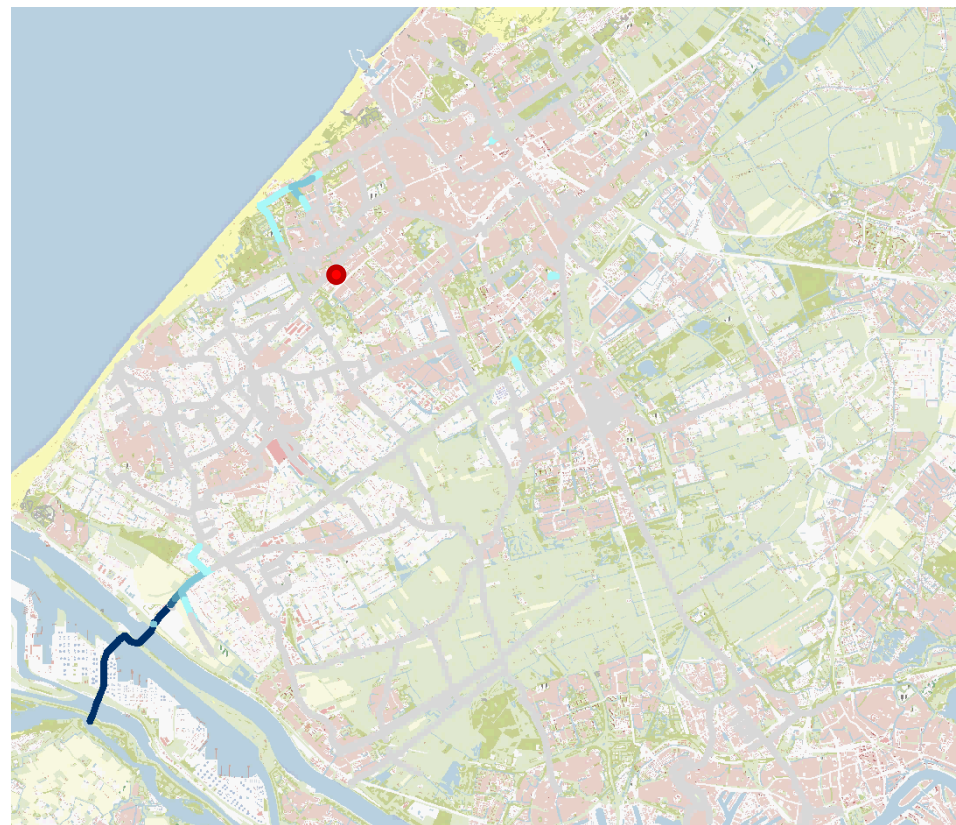
- Shorter time to market
- Direct access to data
- Innovations faster implementation
- Level playing field data
- Export opportunities

- Bigger rendement Research and education
- Access to data
- ...



Current BOS

Using circulation pump Westambacht during inlet from lake Brielse Meer



inlaat Brielse Meer

≥ 0.80
0.60 - 0.80
0.40 - 0.60
0.20 - 0.40
0.10 - 0.20
 < 0.10

Think data





Toxic algal terror engulfs Toledo!

PHOSPHORUS
RUNOFF
presents

IT

CAME FROM THE LAKE

THE COLUMBUS
DISPATCH
COLUMBUSDISPATCH.COM
BIR









DIGITAL DELTA: TO BIG DATA
*Keep wondering, be like Alice in
Water Data Land*



DIGITAL DELTA: How does it work?

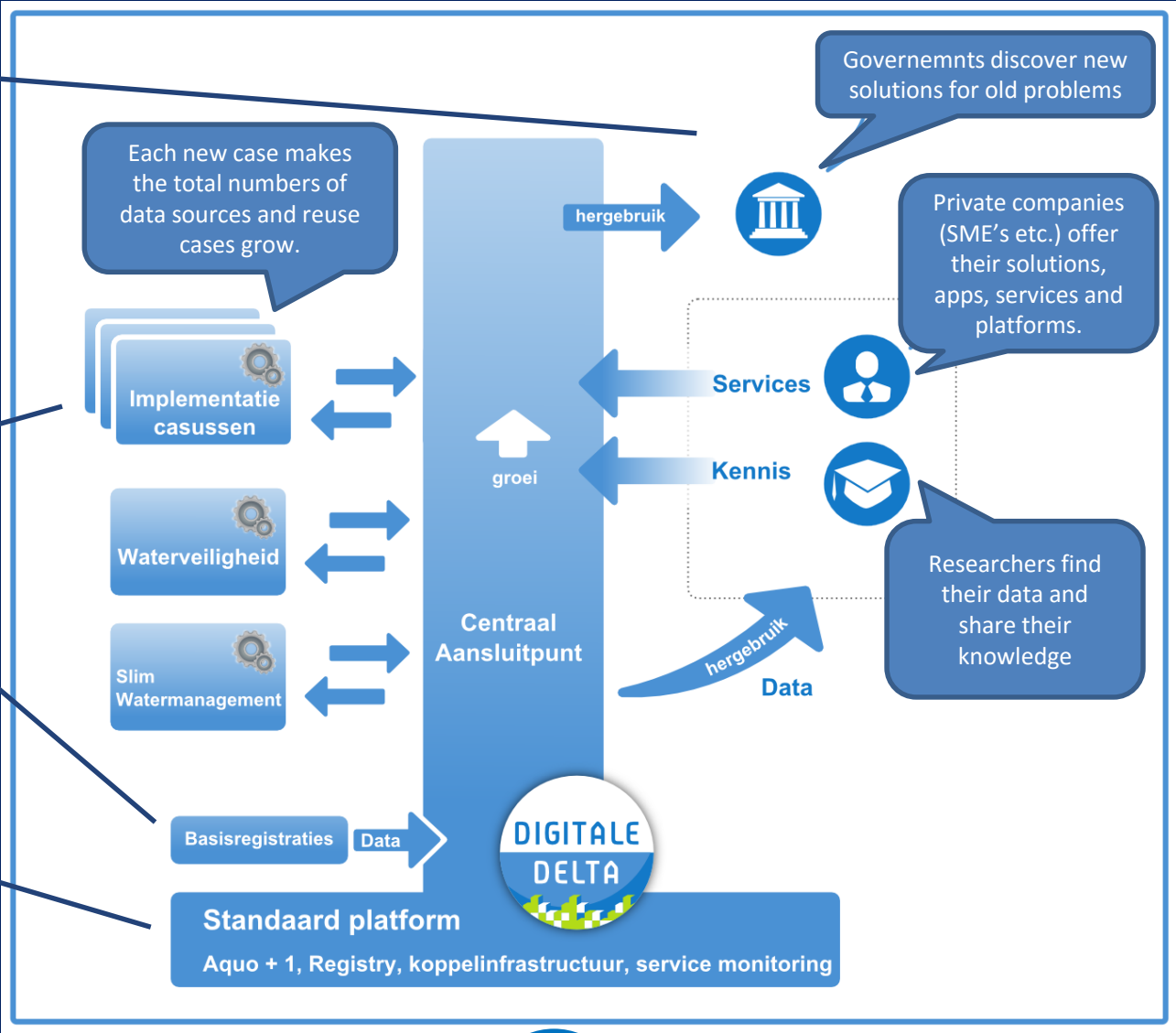


Design principles

1. Prove business benefits
2. Facilitate reuse
3. Data remains with data owner (source)
4. Focus on use(r)
5. No vendor lock in (of lock out)
6. Use existing solutions when possible
7. No negative market intervention



- Can I have what you already have?
- Grow by adding projects
- Datasources and metadata
- Standards Symantical Tecnical



DIGITAL DELTA: How does it grow?



DIGITAL DELTA: Mature Model

The usefulness of the data is essential in order to generate the potential savings for the Digital Delta. Data must be available and harmonized, only then can such things as APIs and tools to add value and contribute to the overall pursue savings.



DIGITAL DELTA: Paradigma shift is needed

Requires real 'business' involvement and ownership of the problem:

FROM do everything yourself TO reuse what there already is

FROM doing nothing TO open data unless

FROM Data for yourself TO share data with the neighbors

FROM many different sources TO thematic oriented data harmonization and central aggregation

FROM perfect data TO usable data



DIGITAL DELTA: Mature Model Steps

Available



make sure that data is **available** on the web (regardless of size)



make it available as **structured** data (eg. Excel instead of a plate)



available in a structured **open** format (eg. CSV instead of Excel)



use URLs to identify things so that others may refer to it



link the data with data from others to provide them with context



Useful



Updating and maintenance institutionalized (instead set once available)



harmonization **head over** resource owners



APIs to improve access



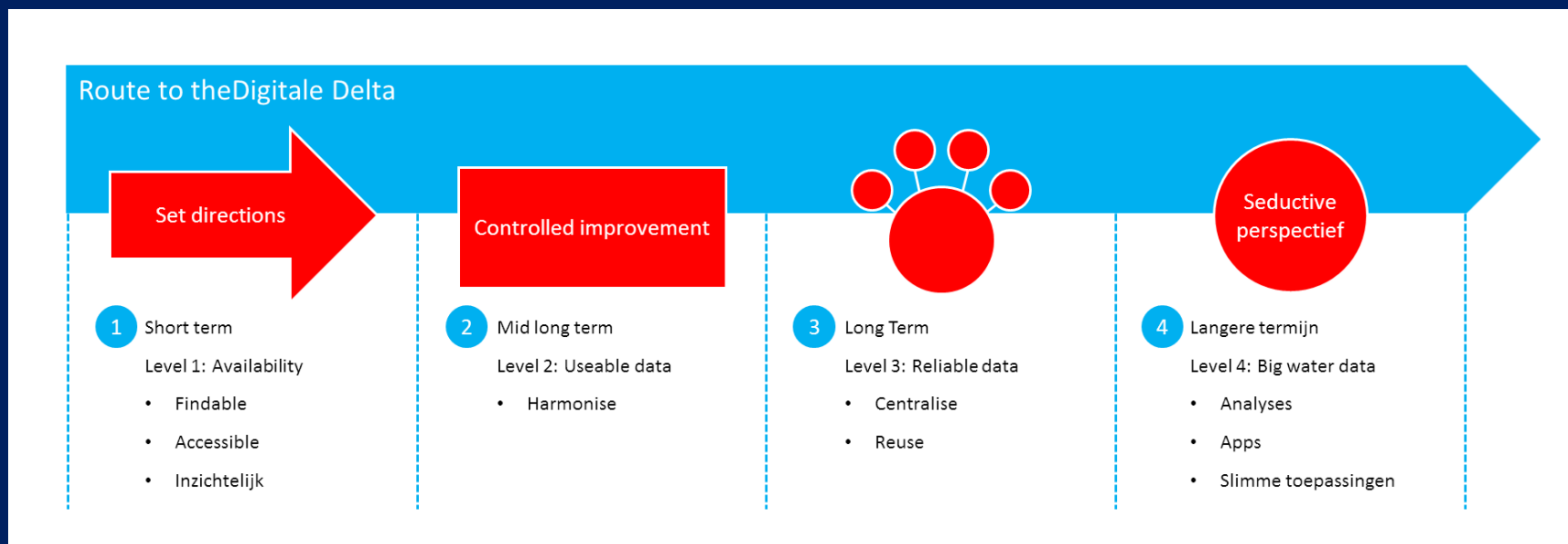
documented to support use



tools to support use



DIGITAL DELTA: When wil users use it?



	What	How	Characteristics
Findable <i>Available</i>	• Make Datasets central findable and accessible • Status overview by source holder • Dataset not available • Dataset available as file • Dataset available as APIs	• Agreements: make datasets available • Catalog • Registration dataset • Registration source holders • Recording quality • Node (hub) • Hatch	• Available • Data is one place to find and accessible • Data quality is approached individually, resolved within the organization • Data is not harmonized, not comparable (comparing apples and pears) • Savings potential is limited, create insight into data quality problem
Harmonize <i>Useful</i>	• Harmonize data delivery • Per data source holder • Equalize data gathering • Equalize data providing	• Agreements: collection process • Catalog (registry) • Describe collection (measurement frequency and method) • Describe data (the data format) • Describe interface (size, method) • Node (hub) • Bulk and single • Smart Questioning	• Useful • Harmonisation is an organizational problem, not a technical problem • Data quality is approached jointly across organizations • Data is harmonized, comparable • Realize cost savings potential
Hergebruik <i>Betrouwbaar</i>	• Reuse ICT tooling	• Reliable • Re-use of ICT applications • Reduce effort source owners and buyers	• Reliable • Re-use of ICT applications • Reduce effort source owners and buyers



Each theme can converge at its own pace to the highest maturity level.

DIGITAL DELTA: Where do we go from here?

1. Integrate in most used programmes (facilitate)
2. Facilitate knowledge and expertise (free)
3. Communicate
4. Use existing systems and solutions (carefully)
5. Connect, connect, connect



DIGITAL DELTA: What can you do?



1. Judo principle:

use the power of others



101.80.12

09.06.2010

2050: MORE THAN 60% WORLD POPULATION
LIVE IN DELTA AREA'S
IMPORTANT ECONOMICAL AREA'S



04.02.12

09.06.2010

ISSUES ARE BIG
AND SO ARE THE INVESTMENTS



04.02.12

09.06.2010

EVERY DELTA HAS IT'S OWN PROBLEMS TO SOLVE

080.66.12

09.06.2010



FLORIDA AND NEW ORLEANS

101.80.12

09.06.2010

BANGLADESH EN DE GANGES- / BRAHMAPUTRADELTA



101.80.12

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MOZAMBIQUE EN DE INCOMATI



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EGYPTE EN DE NIJLDELTA



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INDONESIË EN DE DELTA VAN JAKARTA



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09.06.2010

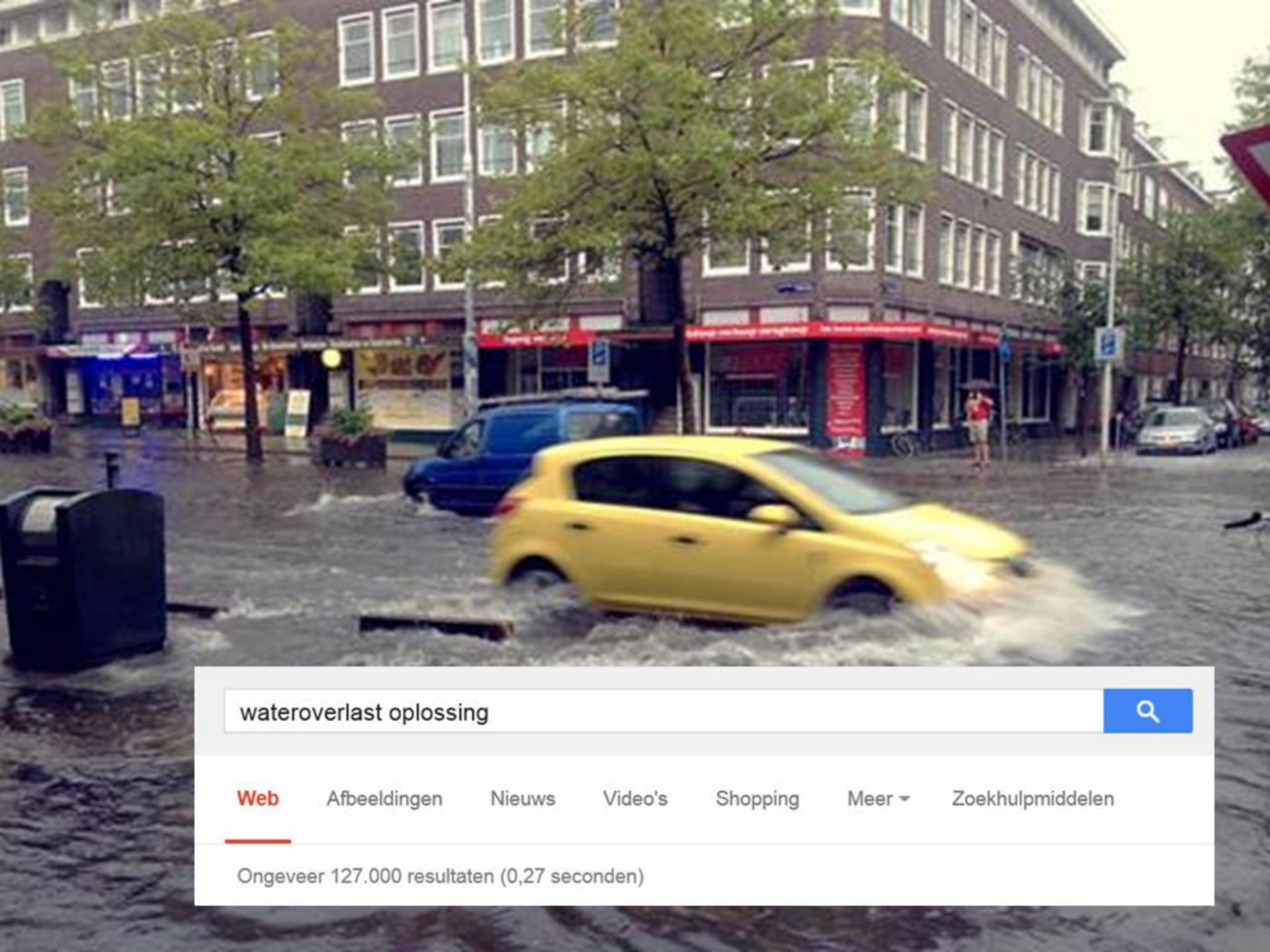


VIETNAM EN DE MEKONG



2. Think globally, act locally, start small





wateroverlast oplossing



Web

Afbeeldingen

Nieuws

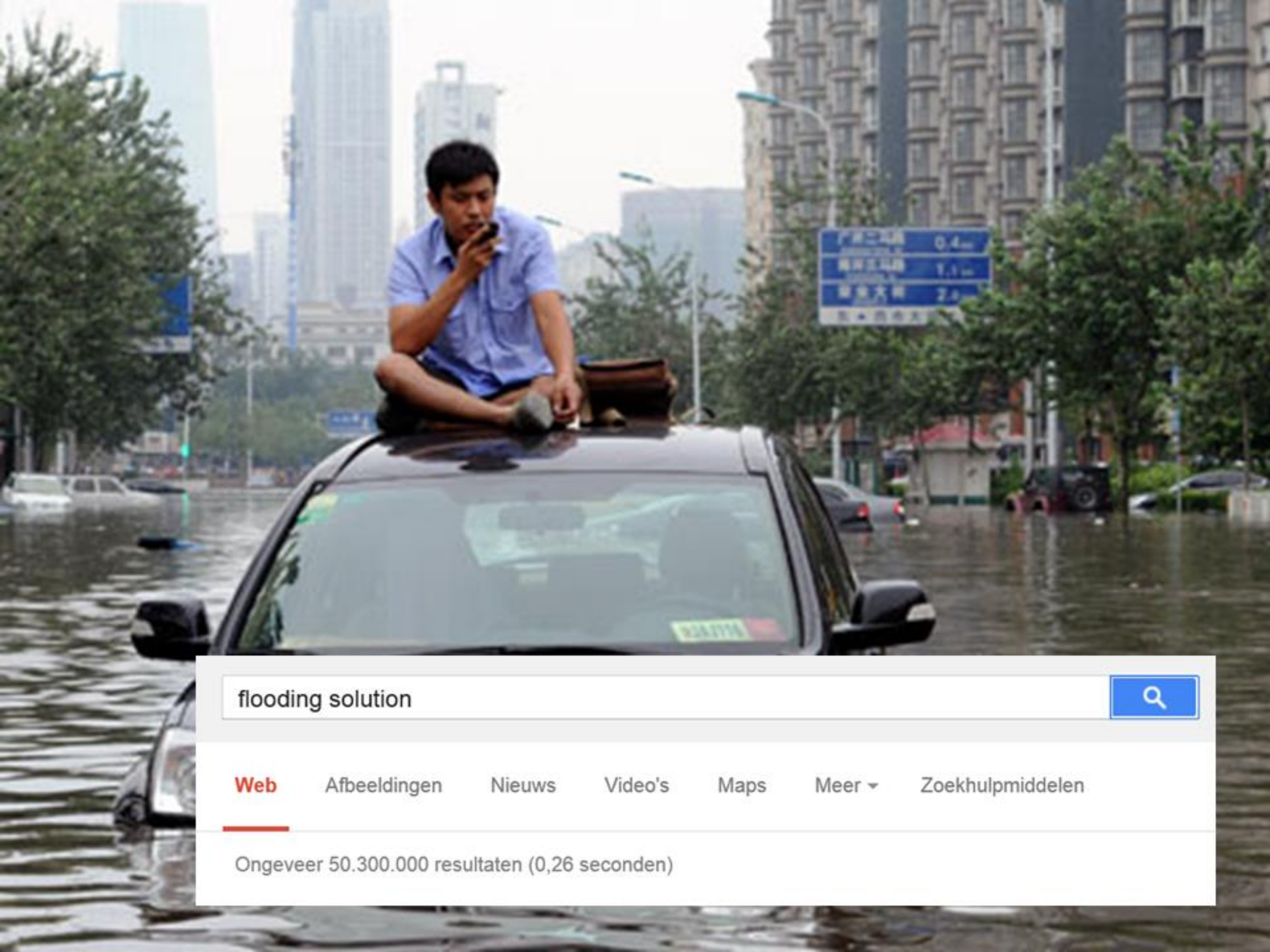
Video's

Shopping

Meer ▾

Zoekhulpmiddelen

Ongeveer 127.000 resultaten (0,27 seconden)



flooding solution



Web

Afbeeldingen

Nieuws

Video's

Maps

Meer ▾

Zoekhulpmiddelen

Ongeveer 50.300.000 resultaten (0,26 seconden)



WaterWindow



www.waterwindow.nl

What is your issue?

[Advanced search](#)



Waterproblems find their solutions

Current issues

Share



Rainwater flooding

Solution

Infiltration sewer

To create additional storage and to retain extra water in the region, an infiltration sewer can be installed above the groundwater table.



 Proven



Shortage of water storage

Solution

Waterblock Shells

Waterblock shells can be used to create large underground water storage, which leaves the soil surface available for use.



 Proven



Dike facings rejected

Solution

Dike reinforcement

Raising the dry tidal area of the Oesterdam by adding sand and a new stone facing.



 Proven



Coastal erosion

Solution

The sand motor

Creating a sand peninsula.



 Innovative



DIGITAL DELTA: Is it the holy grail?



Angels and Big Water Data



The year 1505





Questions and proposals

