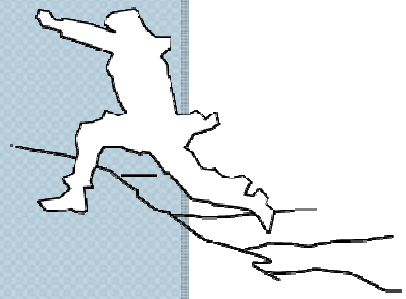
UrbanFlood

The European dimension

Arnhem
24-03-2011

Nico Pals (TNO)



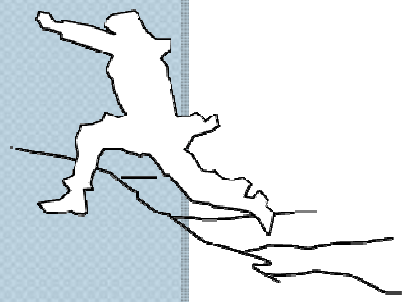
TNO innovation for life

URBANFLOOD

SEVENTH FRAMEWORK PROGRAMME
THEME ICT-2009.6.4
ICT for Environmental Services and Climate Change Adaptation

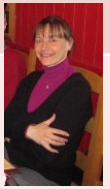
TNO	NL	Coordination, System Integration
Univ. of Amsterdam	NL	Computation
Cyfronet	PL	Workflow
HR Wallingford	UK	Hydraulics
STOWA	NL	Dissemination / Stakeholders
Siemens	RF	AI, System Integration

≈4M€, 1-12-09—30-11-12



TNO innovation for life

Coordinator Robert Meijer TNO – UvA

1	Management	Nico Pals TNO	
2	Stakeholder analysis	Ludolph Wenthold STOWA	
3	Design and implementation of sensor networks	Jonathan Simm HR Wallingford	
4	Modelling, Simulation, Visualisation and Decision Support	Valeria Krzhizhanovskaya University of Amsterdam	
5	Common Information Space	Marian Bubak Cyfronet AGH	
6	Service platform development	Arthem Ozhigin Siemens LLC	
7	Dissemination and exploitation	Ludolph Wenthold STOWA	

Coordinator Robert Mei

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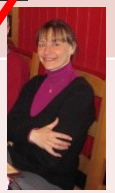
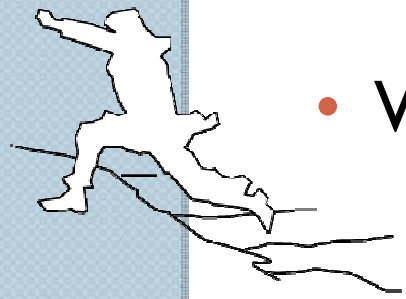
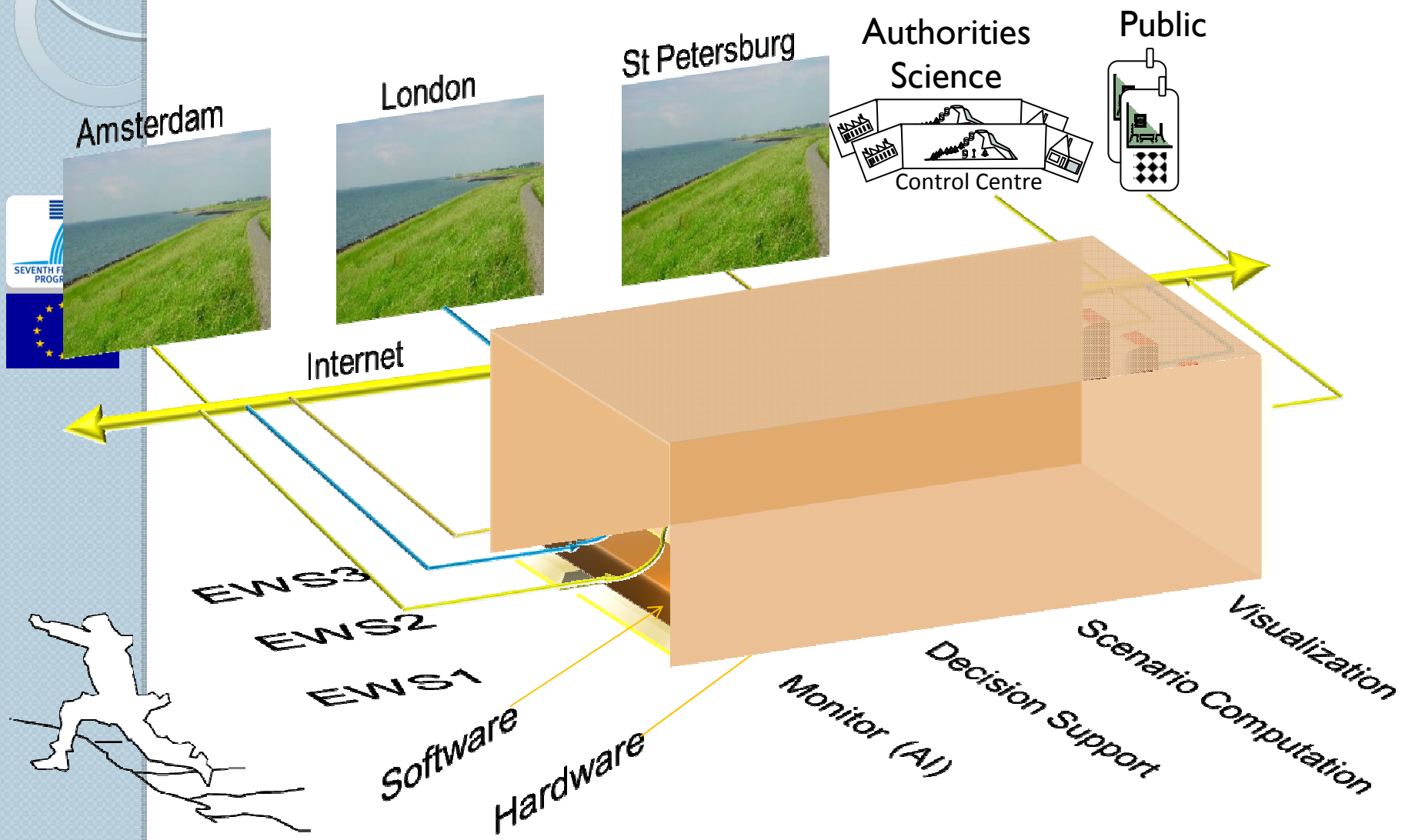


UrbanFlood mitigates the effects of climate change in urban environments through ICT

- Developped online EWS "platform technology"
  - EWS are generated, can have multiple components/ models/sensors, multiple interfaces
- Dikes online
  - Amsterdam
  - Boston (UK)
- Analysis of sensor data
  - Models and calculations
  - Artificial Intelligence
- Workshops, publicity
  - ZDF: Drehsheibe
  - BBC: Horizon



UrbanFlood
online early warning system factory



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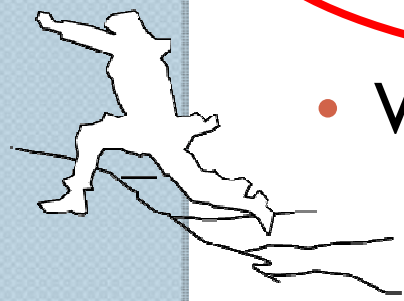
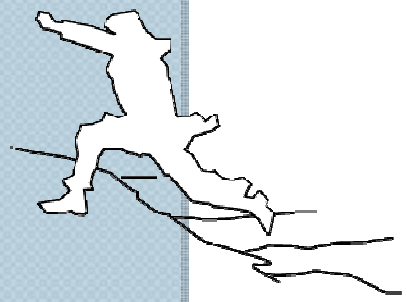
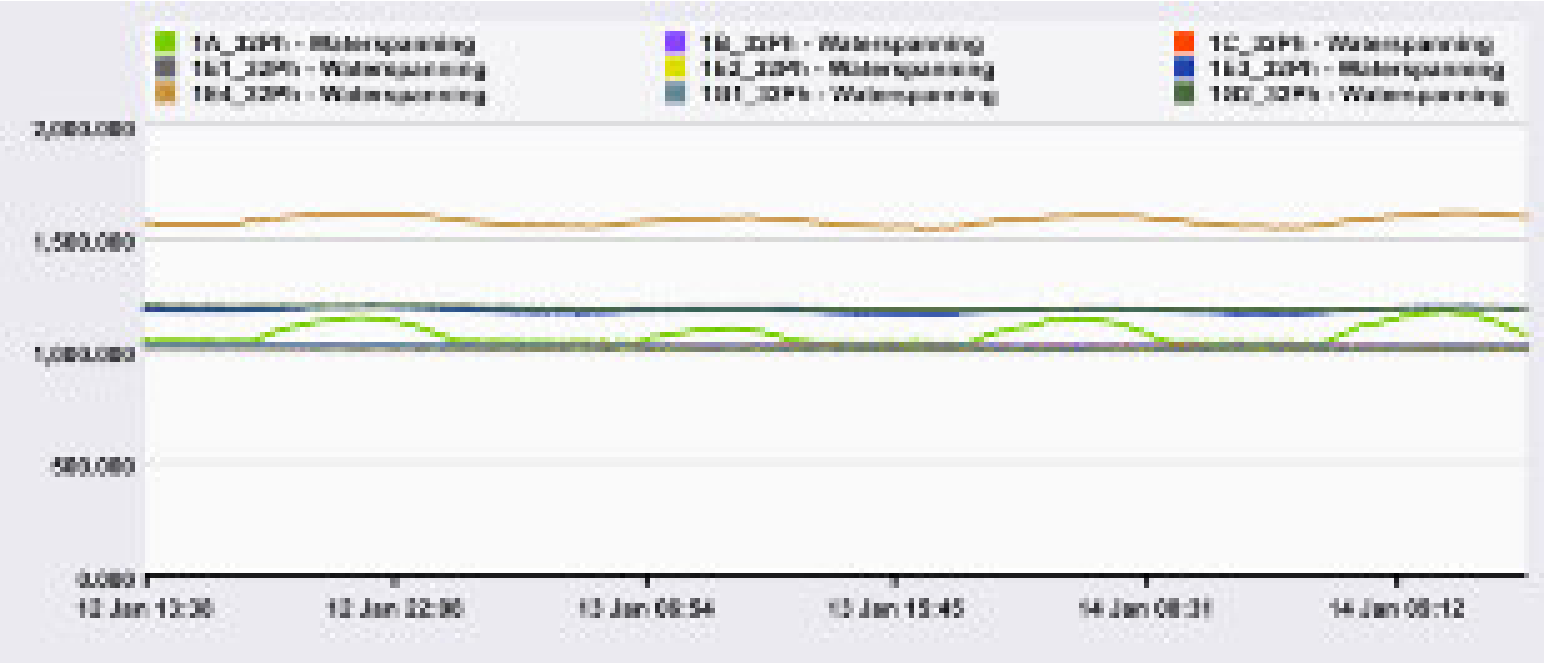


Interfaces

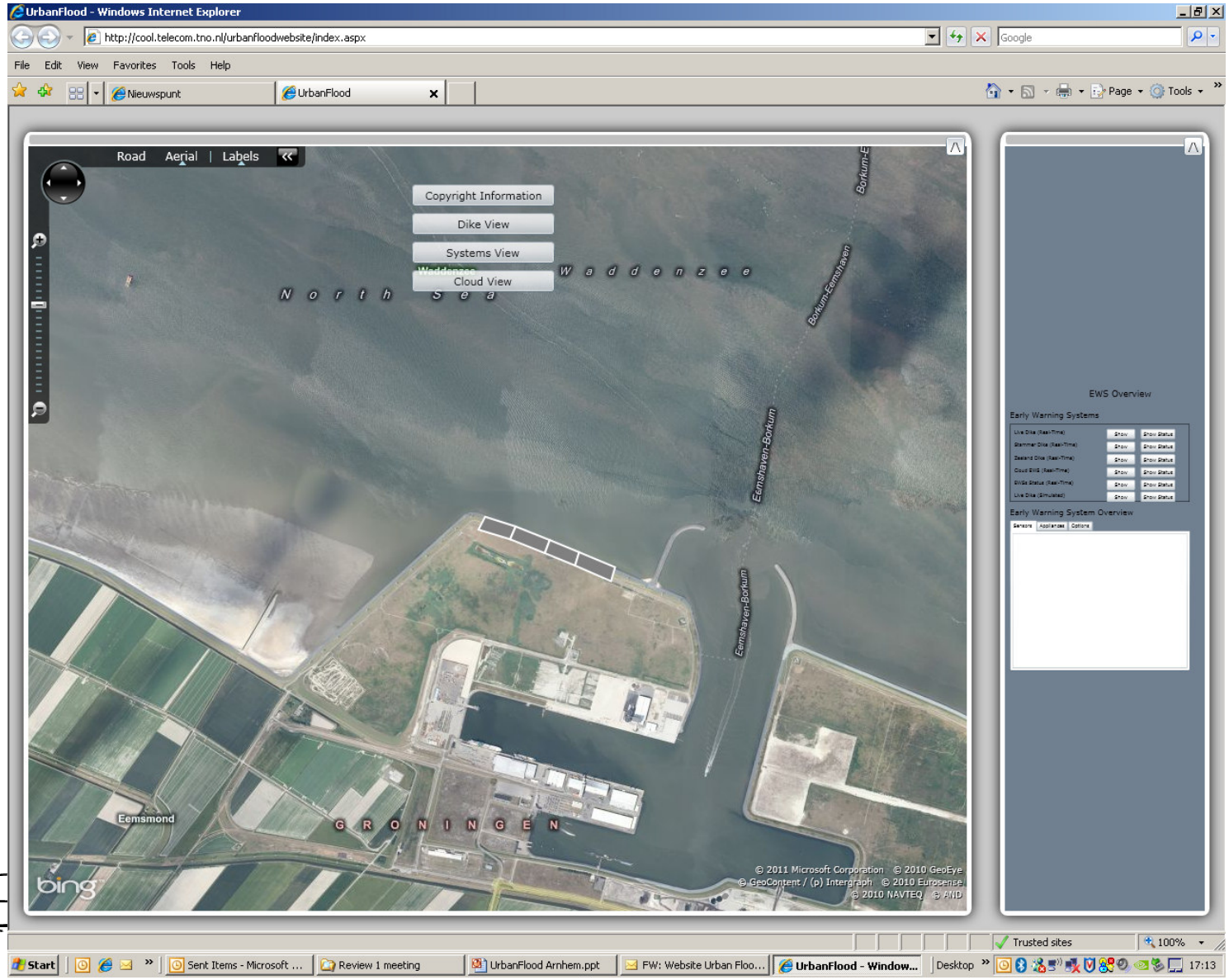
- Basic dashboard
- Web interface
- Multi touch table
- I-pad

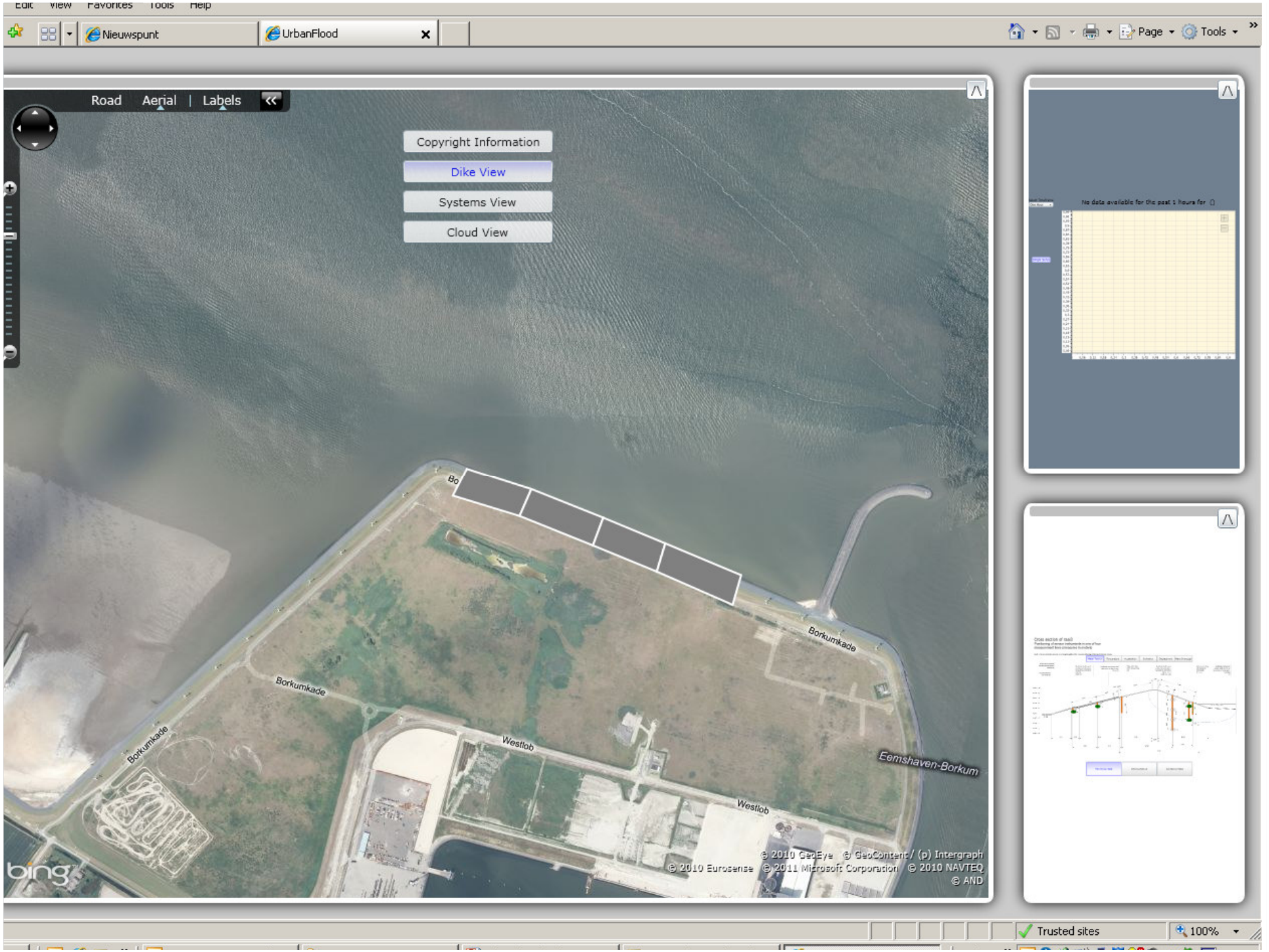


Basic dashboard



Web interface

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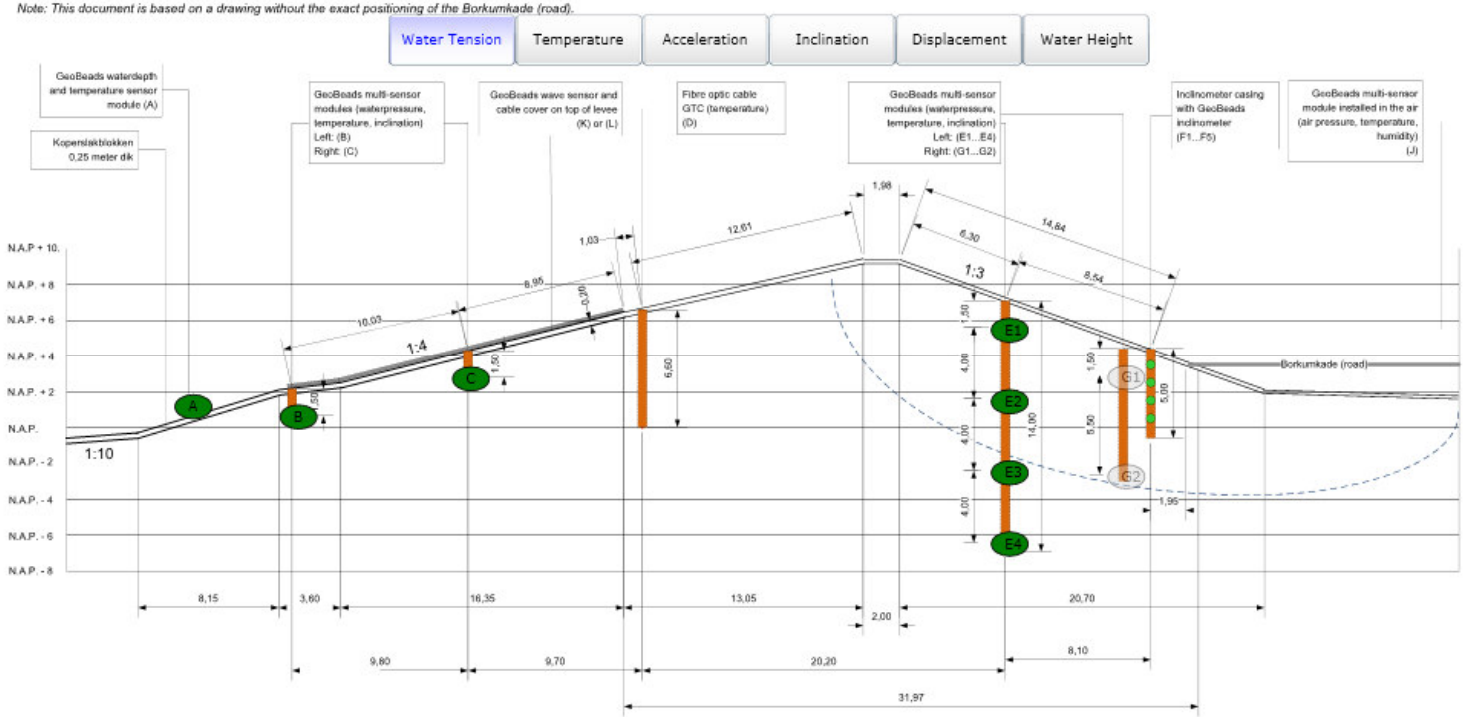
Page Tools

Cross section of raai1

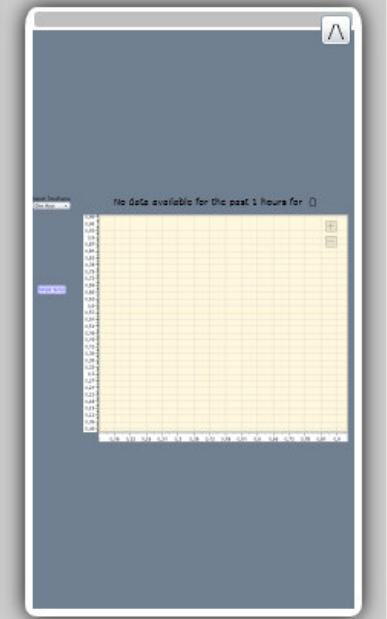
Positioning of sensor instruments in one of four measurement lines (measures in meters)

Note: This document is based on a drawing without the exact positioning of the Borkumkade (road).

Water Tension | Temperature | Acceleration | Inclination | Displacement | Water Height



Raw Sensor Data | Dike Confidence | Confidence Value



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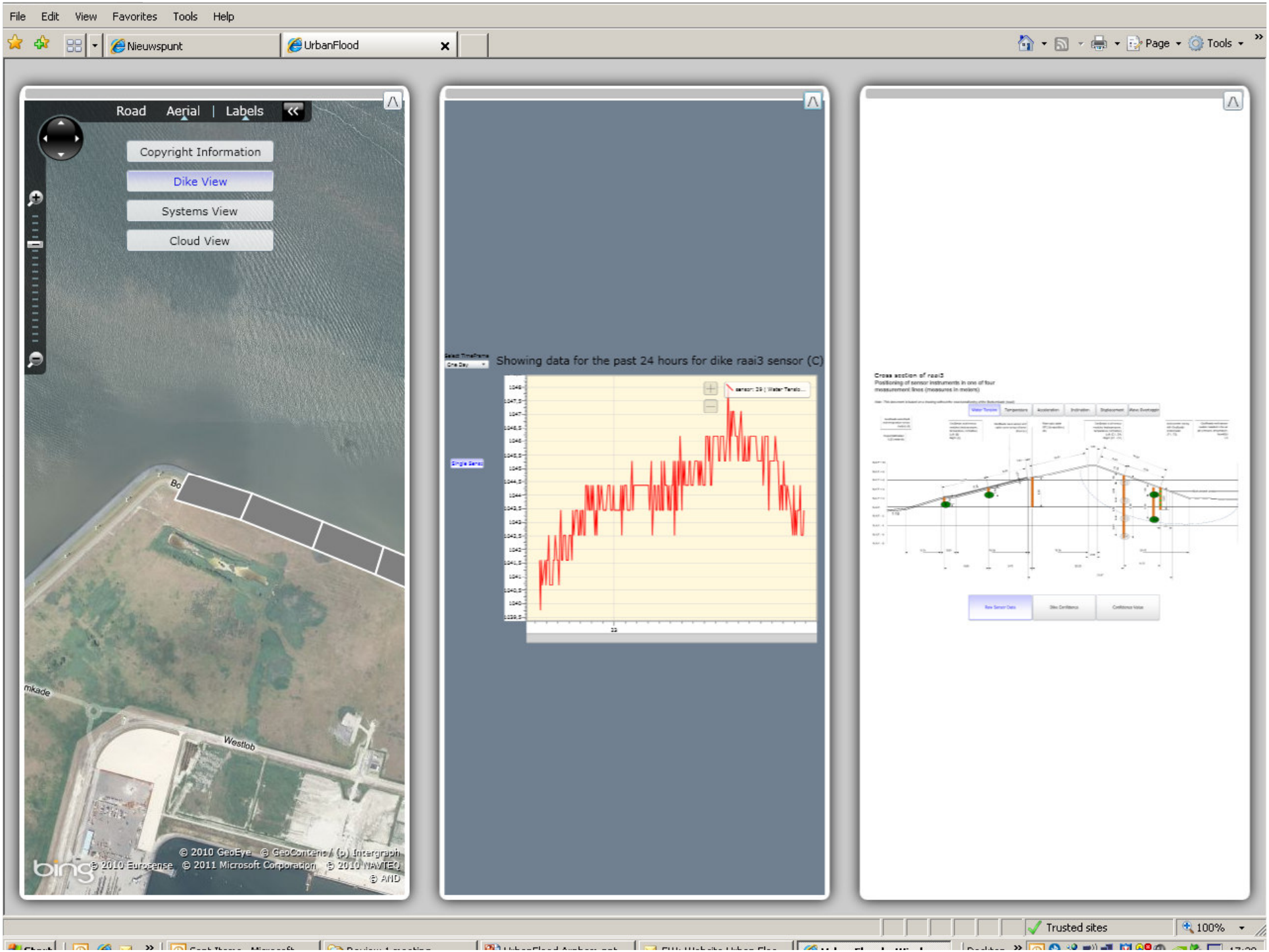
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Tools Help

UrbanFlood

Introduction UrbanFlood

UrbanFlood is a European project* investigating the use of sensors within flood embankments to support an online early warning system, real time emergency management and routine asset management. Application of the concepts to support routine asset management, which includes the regular inspection of dikes, will also be considered. Safer dikes are not only stronger but also smarter dikes.

Early Warning System Framework for European Cities

More than two thirds of European cities have to deal with flood risk management issues on a regular basis; these are issues which will worsen as climate change effects result in more extreme conditions. Early Warning Systems (EWS) can play a crucial role in mitigating flood risk by detecting conditions and predicting the onset of a catastrophe before the event occurs, and by providing

Joint UrbanFlood & SSG4Env Workshop
'Monitoring and Flood Safety'

Thursday 11 and Friday 12 November 2010

See all presentations

News

Joint UrbanFlood & SSG4Env Workshop
Thursday 11 & Friday 12 November 2010 – Amsterdam, the Netherlands

Against a backdrop of storm and rain a truly international group of experts gathered in Amsterdam to look at how future flood safety can

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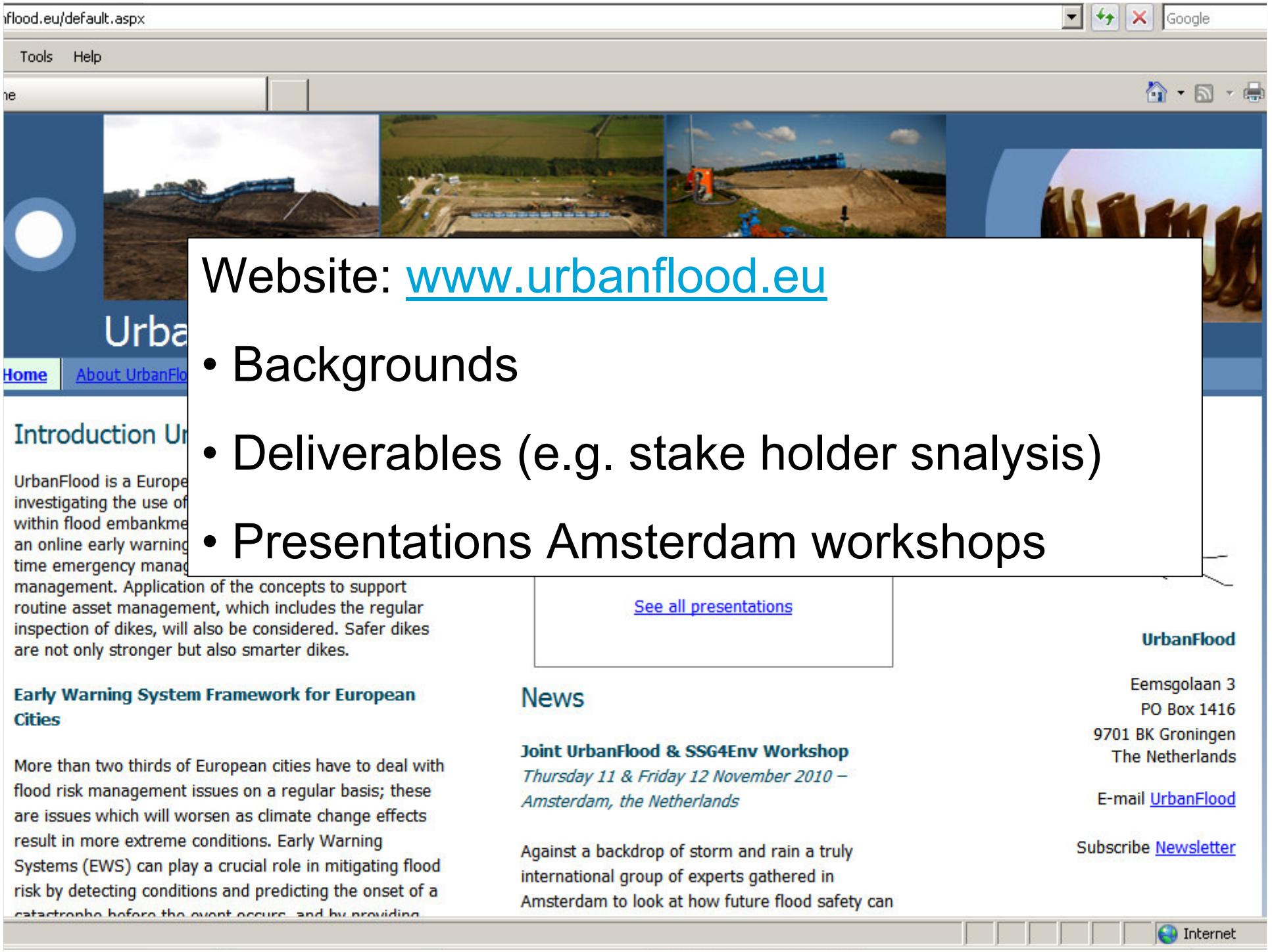
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Website: www.urbanflood.eu
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• Deliverables (e.g. stake holder snalysis)
• Presentations Amsterdam workshops
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That's All !!!
Thanks

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