



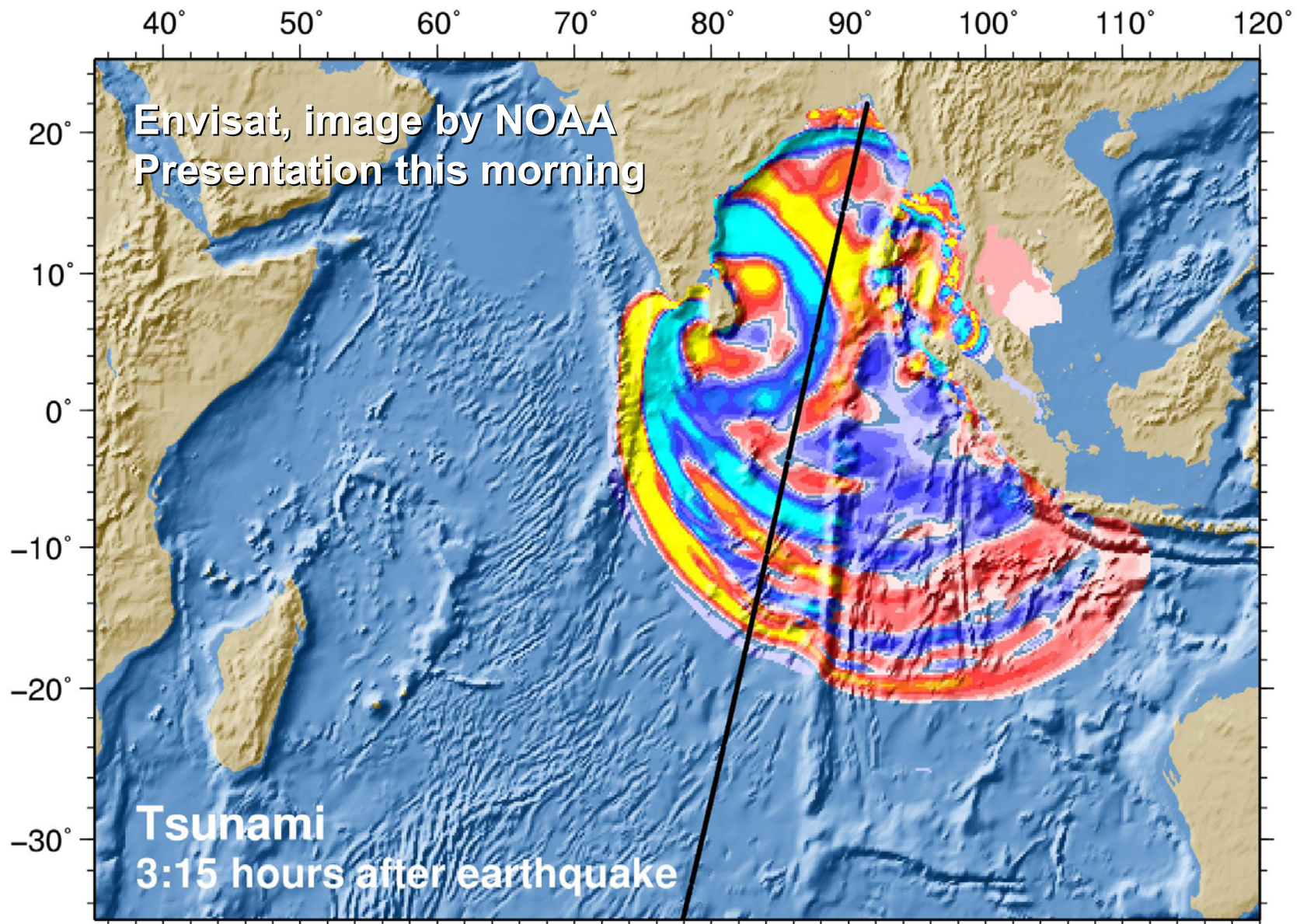
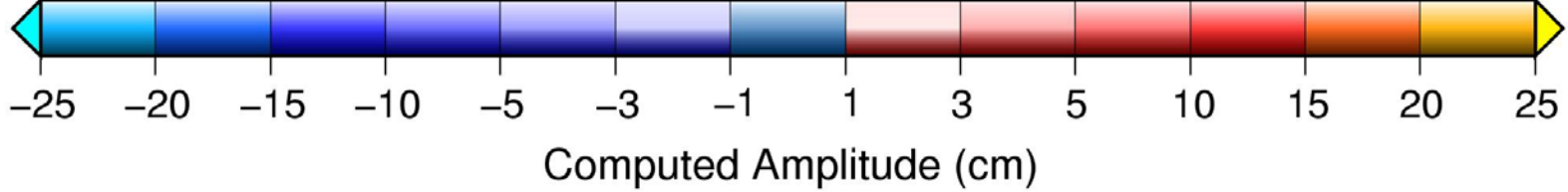
Welcome at the First International Symposium on Geo-information for Disaster Management (Gi4DM)

by prof. Jacob Fokkema,
Rector of the Delft University of Technology

April 25, 2005

First International Symposium on Geo-information for Disaster Management

- Welcome to participants from all continents
- Special welcome to our keynote speakers:
 - Henk Geveke (NL Ministry of the Interior and...)
 - Mike Goodchild (Univ of California, Santa Barbara)
 - Richard Guillande (GeoSciences consultants, France)
 - D. Muhally Hakim (Bandung Inst of Tech, Indonesia)



Tsunami, 26 December 2004

- Disaster will always happen...
- Organizers with mixed feelings:
 - deep sadness
 - reinforced believe to use geo-information

Painting by Egbert Lievensz van der Poel, 1654
collection Stedelijk Museum Het Prinsenhof, Delft



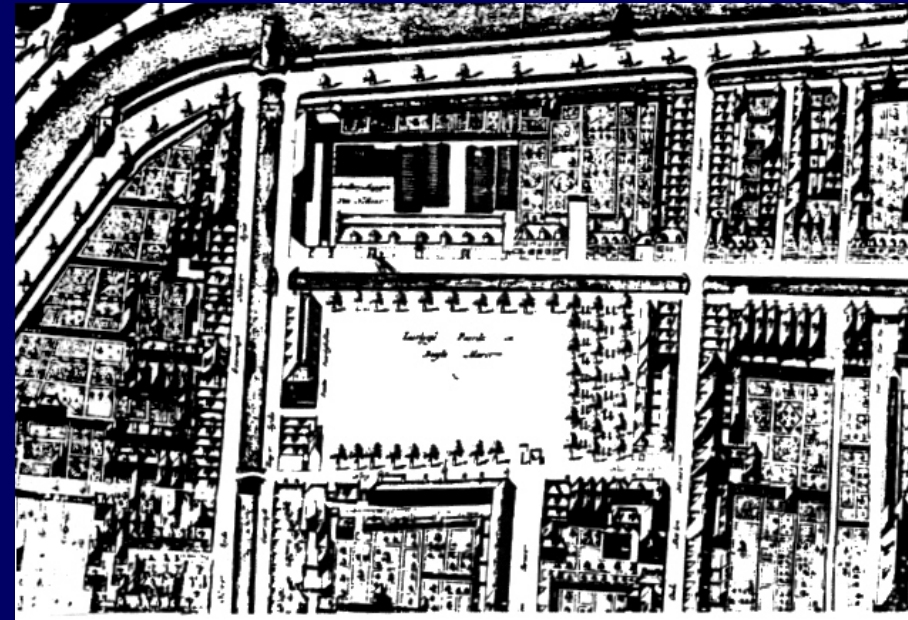
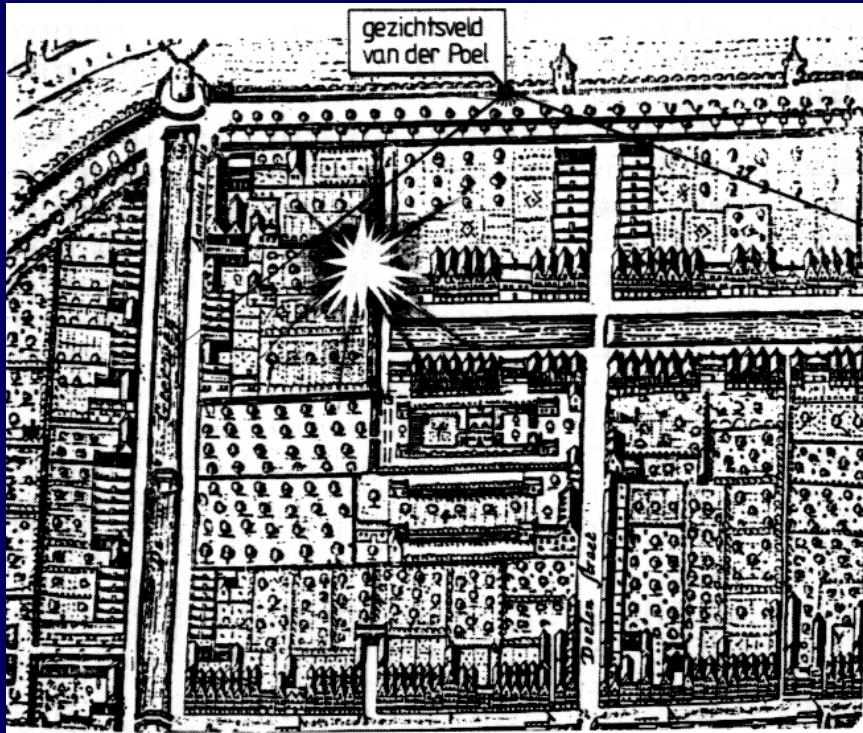
Gunpowder explosion, Delft 12 October 1654

- 90.000 pound exploded (TNO: 40 ton TNT_{eq})
- 200 houses not found back, hundreds more destroyed
- 100 fatal casualties (some reports 1000s)
- Blast could be heard up to Texel (> 100km North)
- Warehouse was in the city

April 25, 2005



Old 'map' <1654> New 'map'



Some things remain constant...



- Nearby child in chair eating apple not harmed
- Man was found alive under ruins after 36 hours
- Government support victims (free from taxation)
- Famous writer, Joost van den Vondel, creates poem 'Op het Onweder van 's Lants Bussekruid te Delft'
- People learn: 6 years later the new warehouse was rebuilt 1,5 km outside city (more compartments)

People learn (1)

- After Tsunami: warning system should be created in Indian Ocean; see resolution of International Union of Geological Sciences (IUGS), recommends
 1. establish system/procedures for early warning
 2. include geological hazards at all educational levels
 3. create/improve disaster management systems (monitor known indicators of natural disasters)
 4. multidisciplinary/multinational research on geological hazards (improve understanding /forecasting)
- Tsunami caused by: earthquakes, volcanic eruptions, and landslides
- Most dangerous natural disaster: meteorite, 3 times all life on Earth was destroyed (prof. Stefan Luthi)

DE STORMVLOED

van 1 Februari 1953



- Zeekering
- Dijkwalstrook
- Kennelijk als strand teeld
- Oudegravenland
- Strong land
- Sted. die gedeeltelijk overgroot is geweest
- 1-10 duizen
- 10 duizen
- + Weggeteld, wanneer bijvoering door de lucht plaats heeft
- Gebied of gedeeltelijk getroffen gebied
- Wadden
- Aaklanden
- Beendland met wateraanwinning
- Spoorweg
- Rijksweg
- Provinciale weg
- Rijkswater
- Dijk

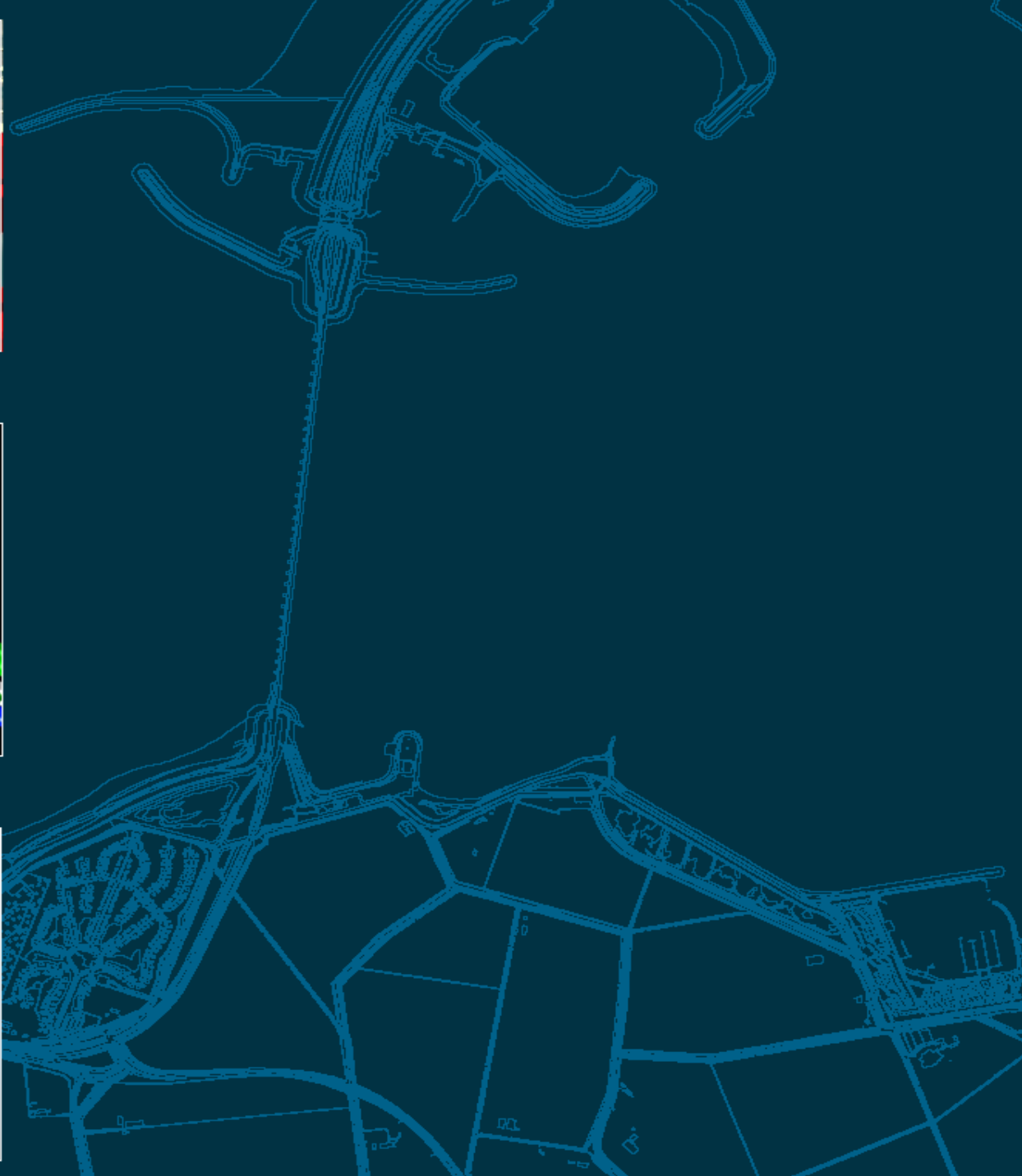
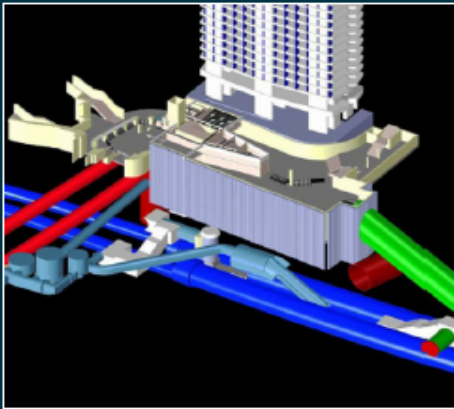
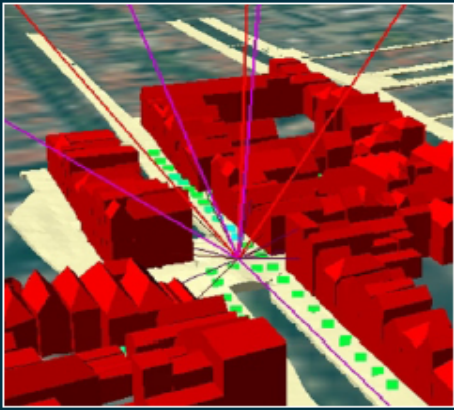
Schaal 1:125.000



People learn (2)

- Some examples from the recent NL past:
 - sea flooding Zeeland 1953 → Delta-works
 - river flooding Betuwe 1995 → New program for river management and improved dikes
 - firework disaster Enschede 2000 (4-5 ton TNT_{eq}) → more stringent regulations, checking of regulations





Geo-information

- Provides context awareness 'what/who is where'
- Integration from multiple sources needed
- 3D and temporal aspect very important
- Mixed indoor (CAD) and outdoor (GIS) information
- Enables analysis (routes, flooding prediction,...)
- Provides clear interface 'the map'
- Up to date information; monitoring by satellite sensors
- Positioning and navigation (GPS, Galileo)
- Location based services (LBS)

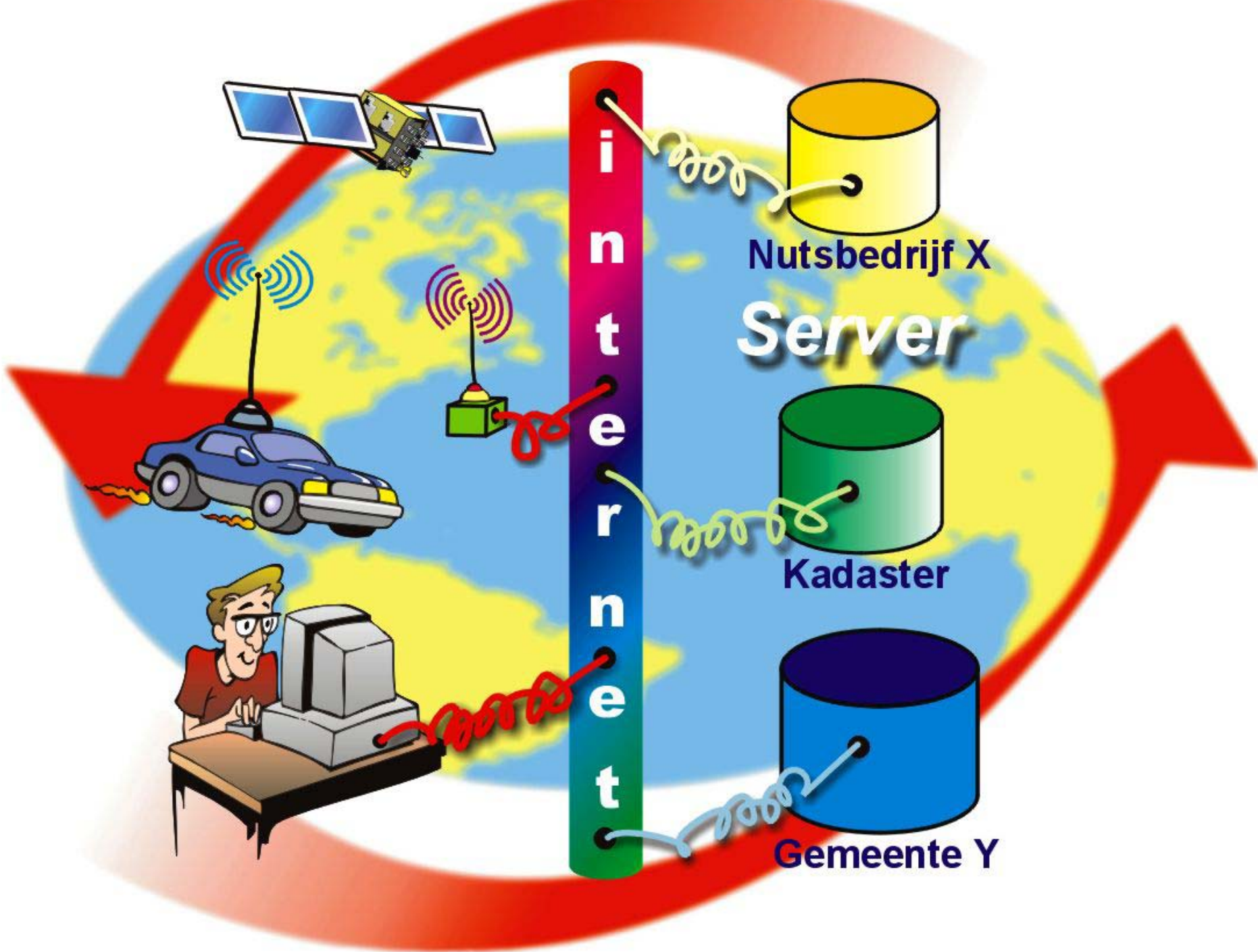


information from imagery



Cooperation

- Organizers: ISPRS, UN OOSA, ICA, FIG, OGC, AGILE, EuroSDR
- Sponsors: GIN, Rijkswaterstaat, Intergraph, ESRI, Bentley, Octaaf
- Working groups:
 - Spatial Data Integration for Emergency Services (ISPRS)
 - Early Warning and Risk management (ICA)
 - Risk and Crisis Management (OGC)
 - Disaster Management – Preventing Environmental Catastrophes
 - by Spatial Planning and Land Management (FIG)
- Next events India (2006), Canada (2007), China (2008) final planning
Joint Board of Spatial Information Societies



Cooperating TU Delft departments, a sample...

- Security and Disaster Management
- Delft Institute of Earth Observation and Space Systems
- Materials Science and Sustainable Construction
- Quantitative Imaging Group
- Computer Graphics & CAD/CAM
- Geo-Information Infrastructure
- GIS-technology



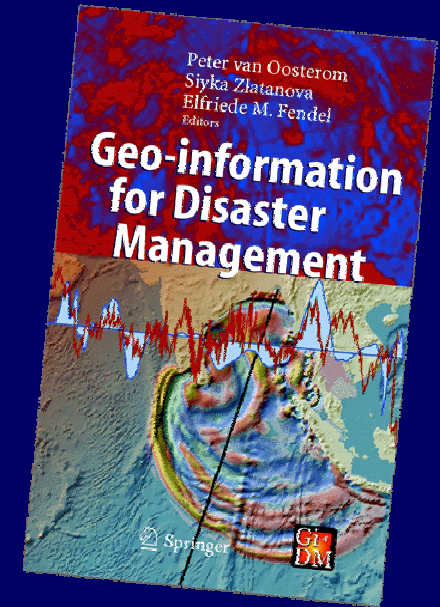
Pictures by
Axel Smits

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Gi4DM Programme

- 4 keynotes
- 22 presentations in plenary sessions
- 49 presentations in parallel sessions
- 50 poster presentations
- Special sessions include:
 - Life Geo-web services 'high river water scenario'
 - Discussion panel (moderated by Orhan Altan, secretary general of the ISPRS)



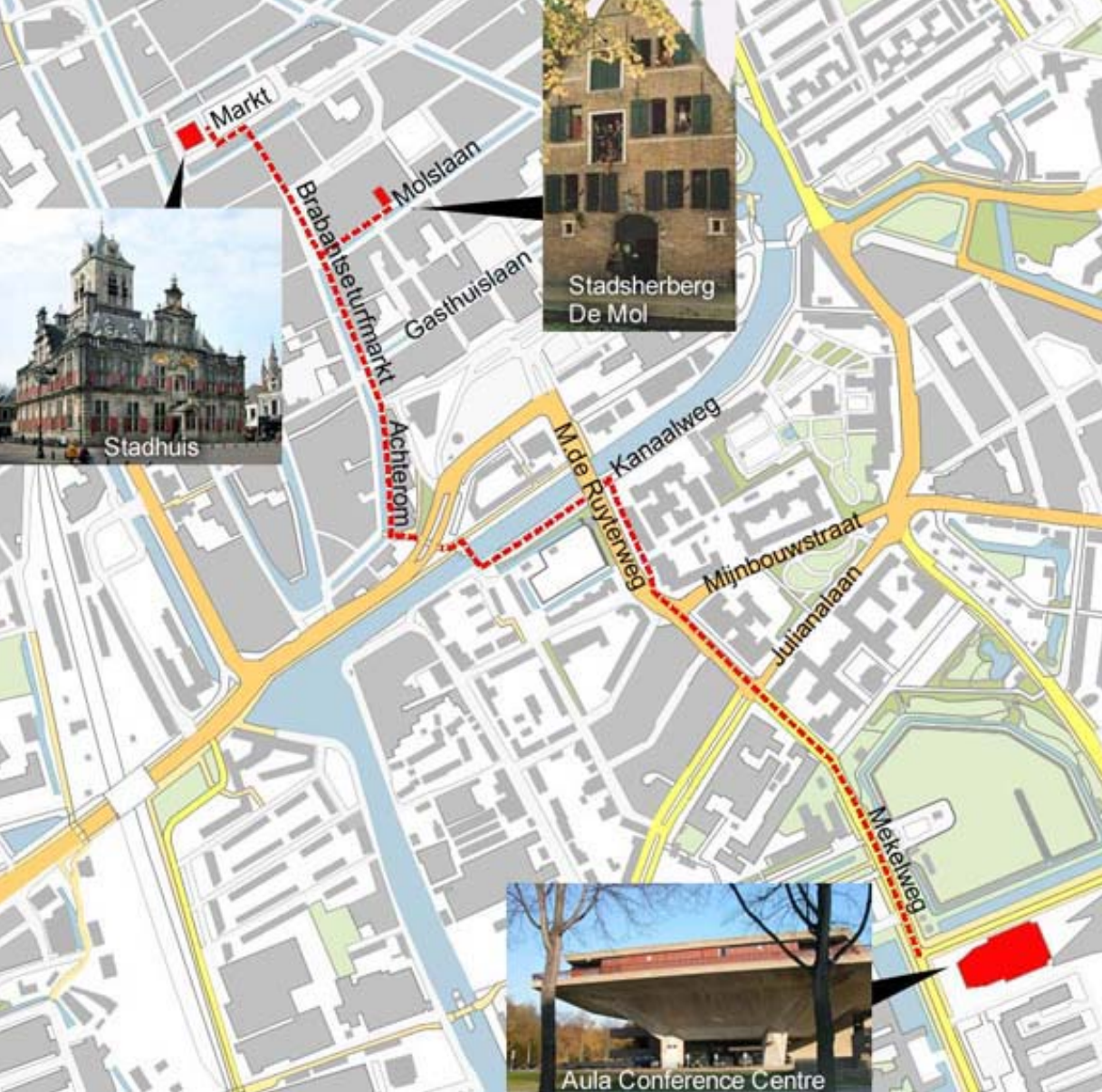


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Symposium goal: treat disaster management in its entirety

- Technology: hard/software
- user requirements for geo-information information
- providers (data and standards).

- Aspects addressed:
 1. state-of-the-art in Disaster Management
 2. review of tools, software, geo-information sources, organizational structures and methods for work in crisis situations
 3. outline of the drawbacks in current use of geo-information
 4. some suggestions for future research directions



Create relationships

1. During sessions and breaks
2. Reception (mayor of Delft)
3. Medieval symposium dinner

Enjoy!

