Deltares

enabling delta life

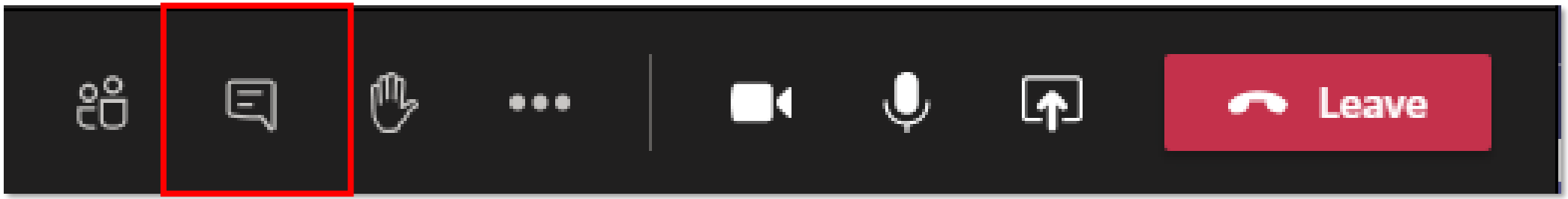
Forecast impact information for decision making and emergency response

Who are we?

- Herman Haaksma

- Patricia Trambauer

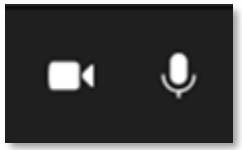
Who is present…?



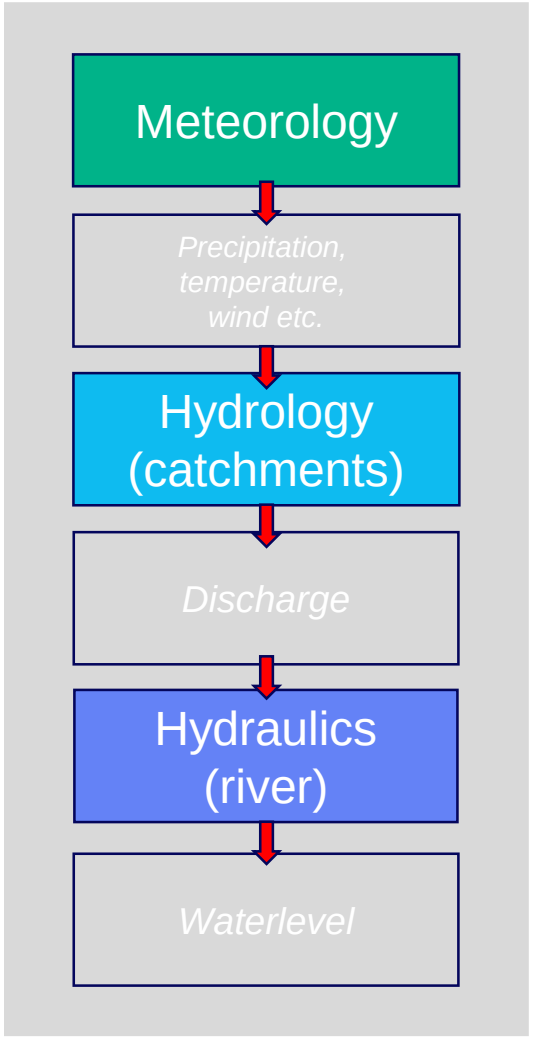
Please introduce yourself in the chat:

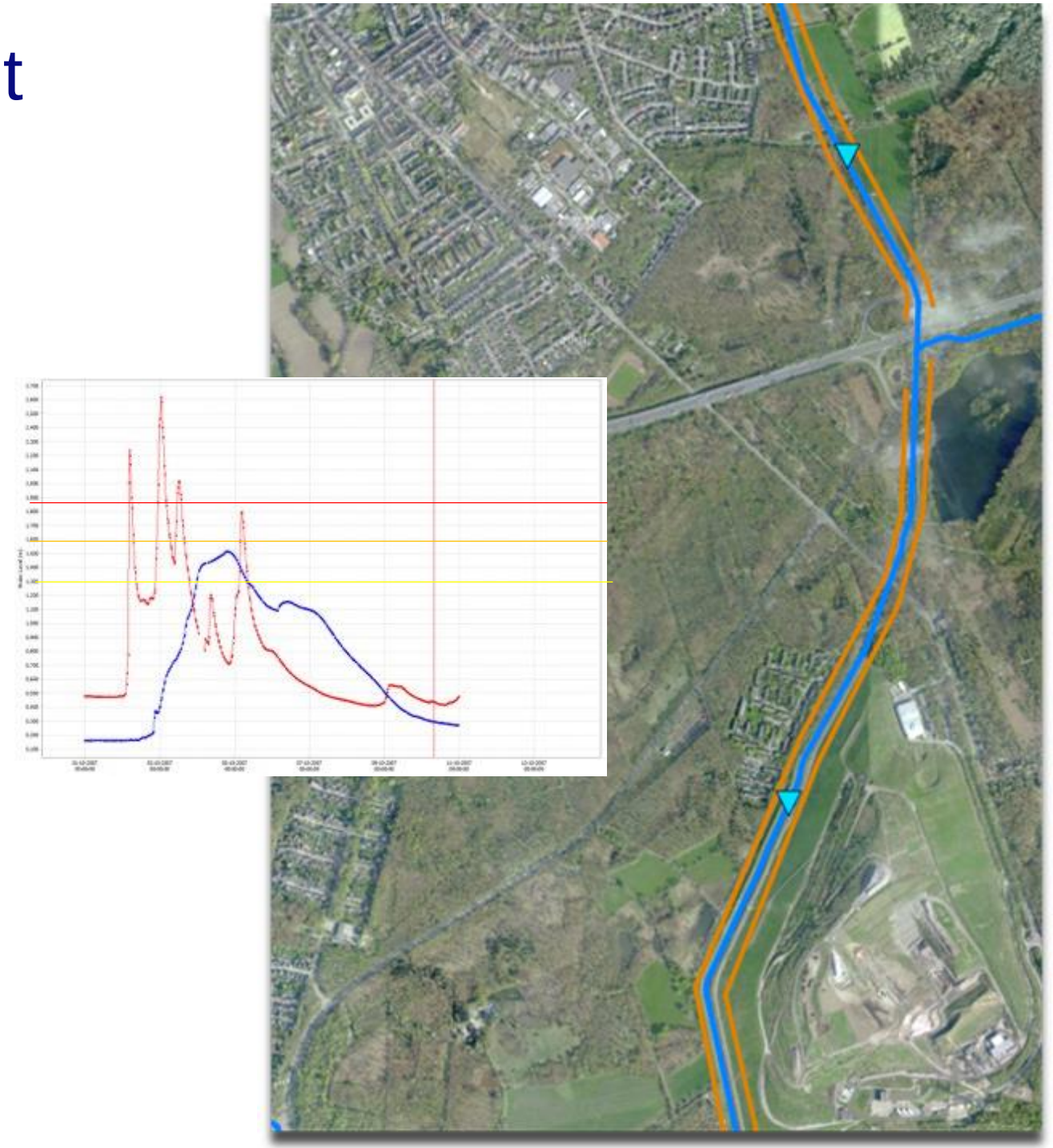
…name, country, organization…

Turn ON your camera and mic



Why this break-out session?





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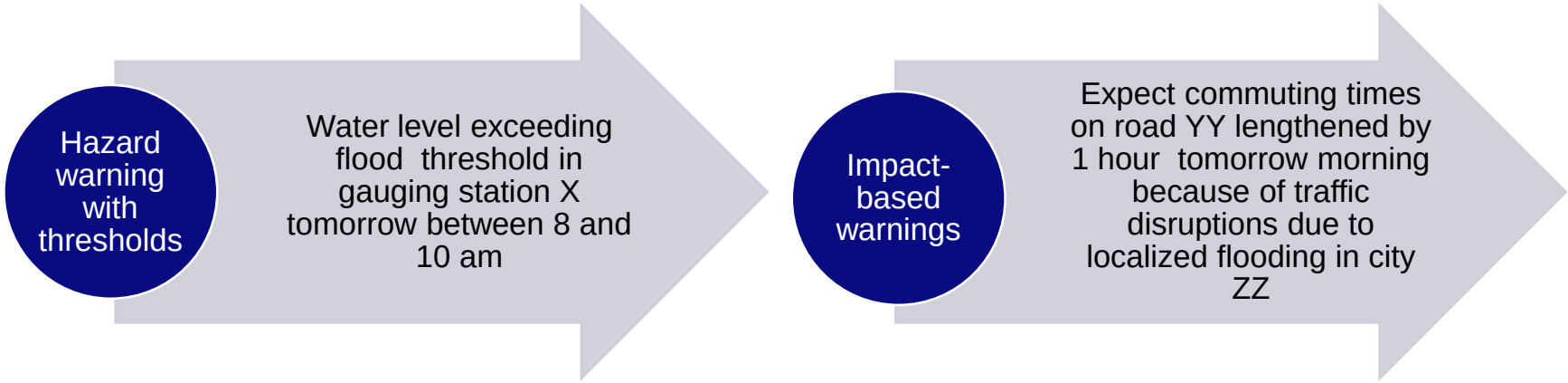
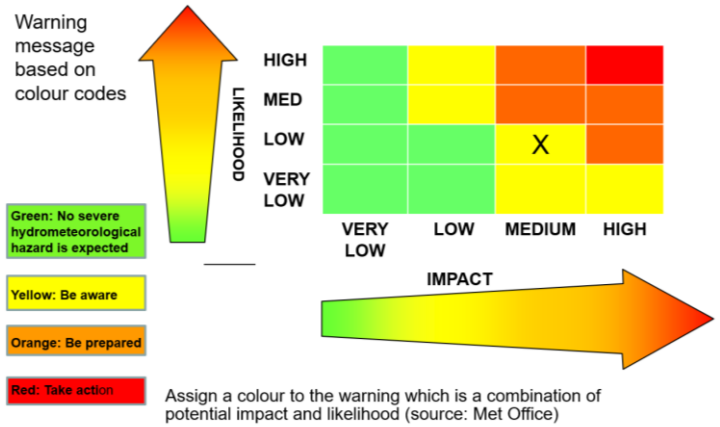
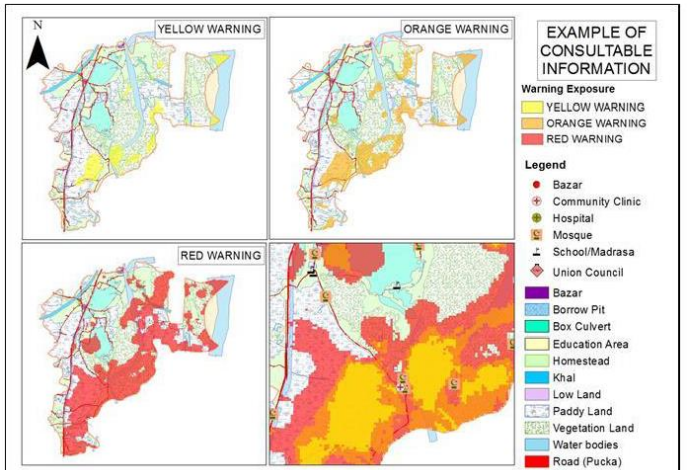
Is our information tailored enough to assist in decision making?

Impact based forecasting

- Despite reliable, accurate and timely warnings many people still die and losses continue to rise. This is in part due to lack of understanding of impacts of hazards (authorities and population)
- Impact forecasting includes hazard, exposure and vulnerability information







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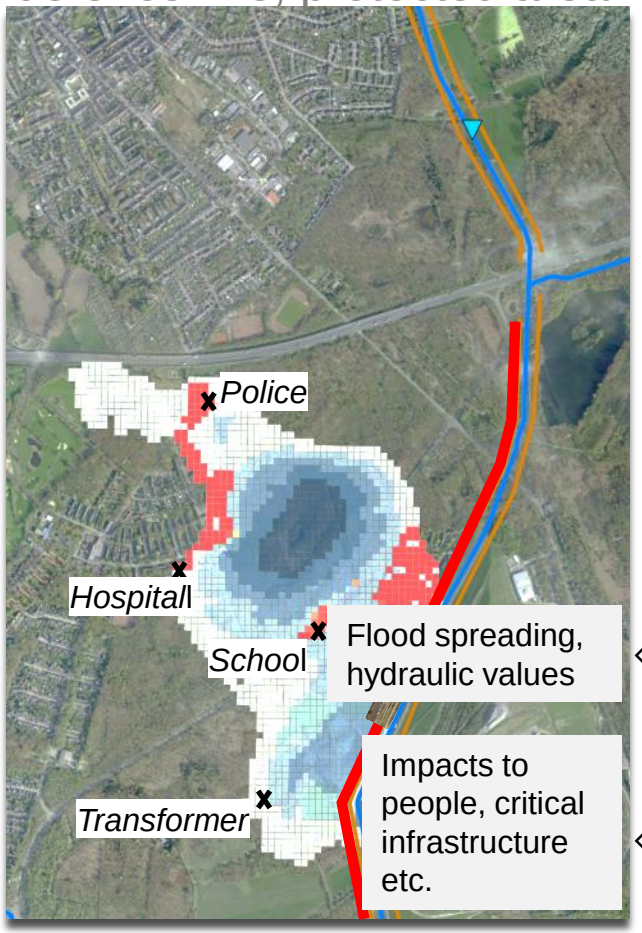
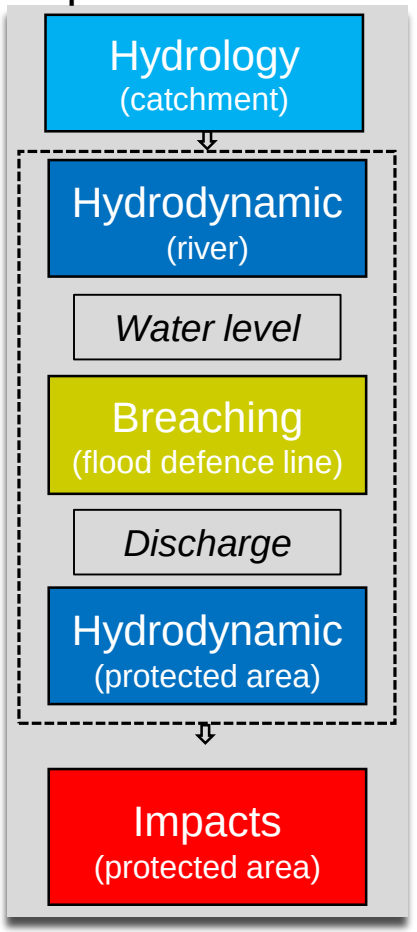
So… can we provide information on expected impacts in our previous example?

System river, flood defence line, protected area



Forecasted process chain

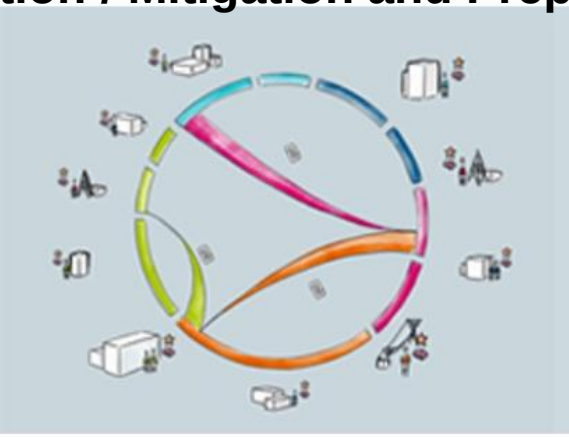


Some tools at Deltares..

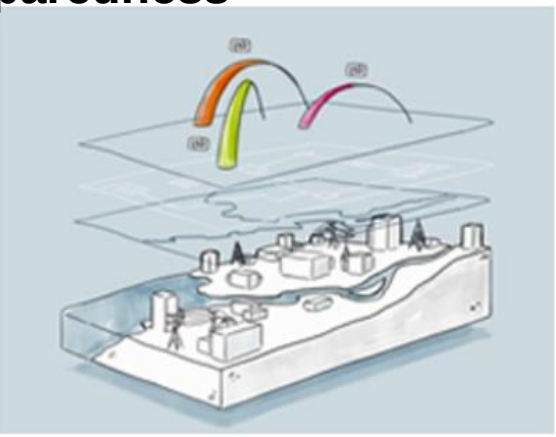
CIrcle – Critical Infrastructures

- There are many uncertainties on how cascading effects develop during and after a flood.
- Bringing stakeholders together in a interactive colleberative modelling workshop.
- The goal is to understand the complicated relations between critical infrastructures, using input from the stakeholders, open data and models.
- Participants are encouraged to think about adaptive measures to improve resilience.
- Focussing on **Prevention / Mitigation and Preparedness**

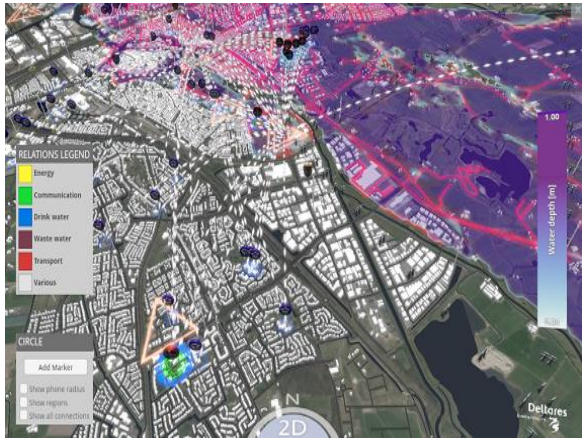
Stakeholder tool (touch table) used during workshop



Combine expert knowledge to analyse and predict results

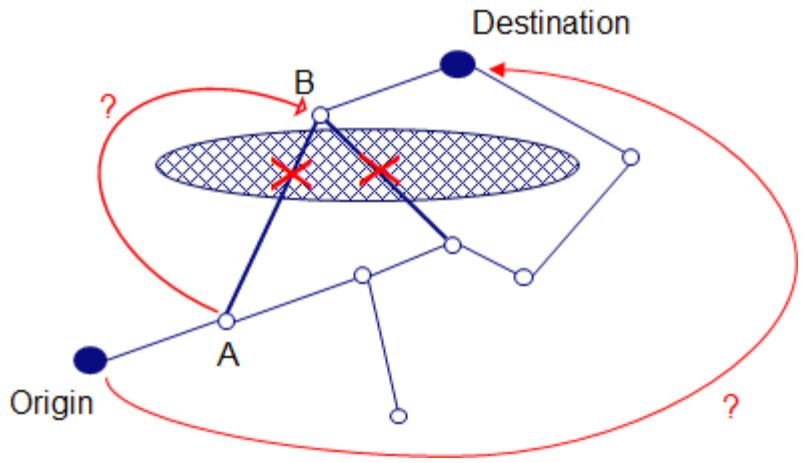


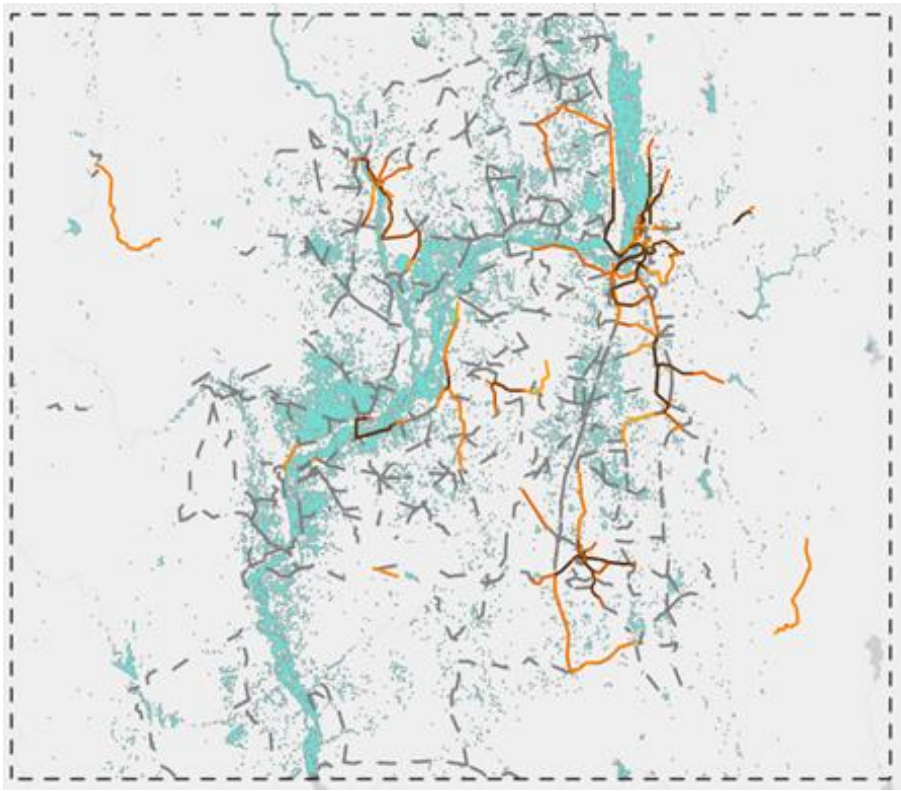
Cascading effects instead of looking at infrastructure networks seperately



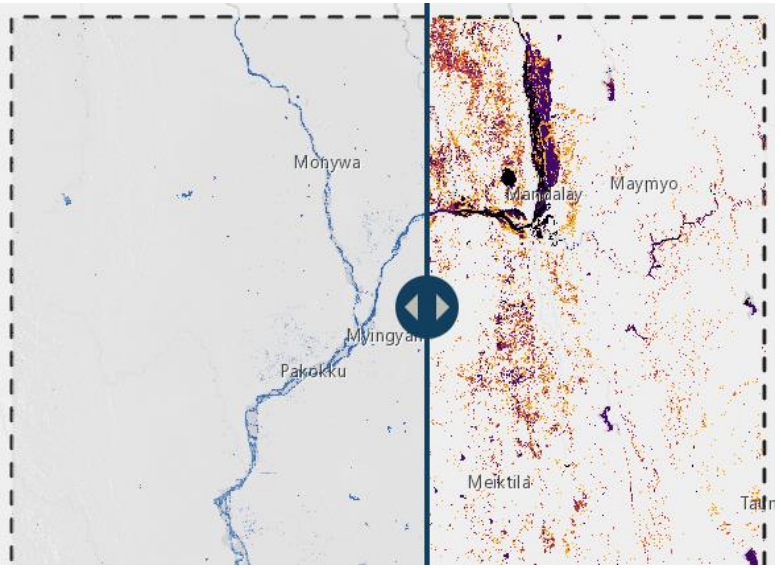
Criticality Tool

- Developed in 2019
- First developed for road infrastructure but now also applied to other critical infrastructure networks.
- Focussing on **Response**

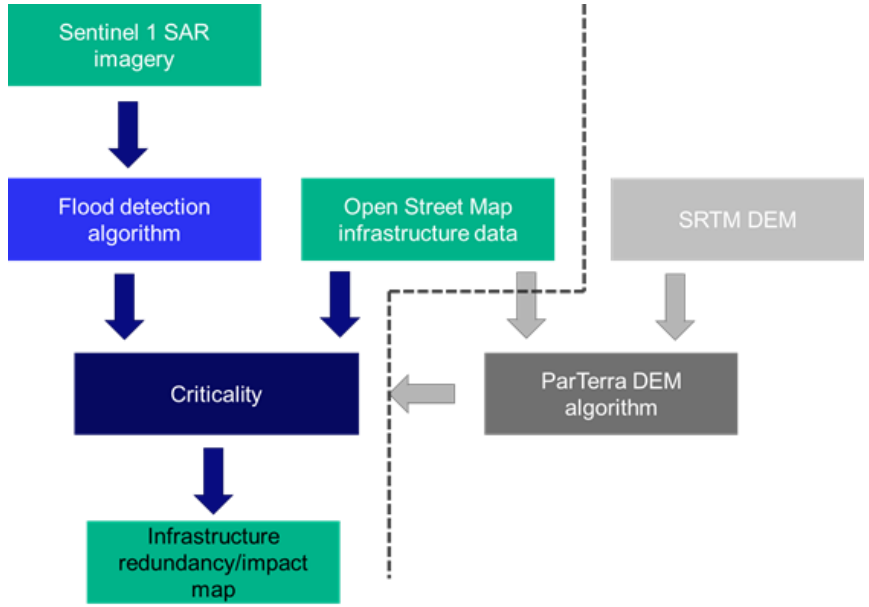




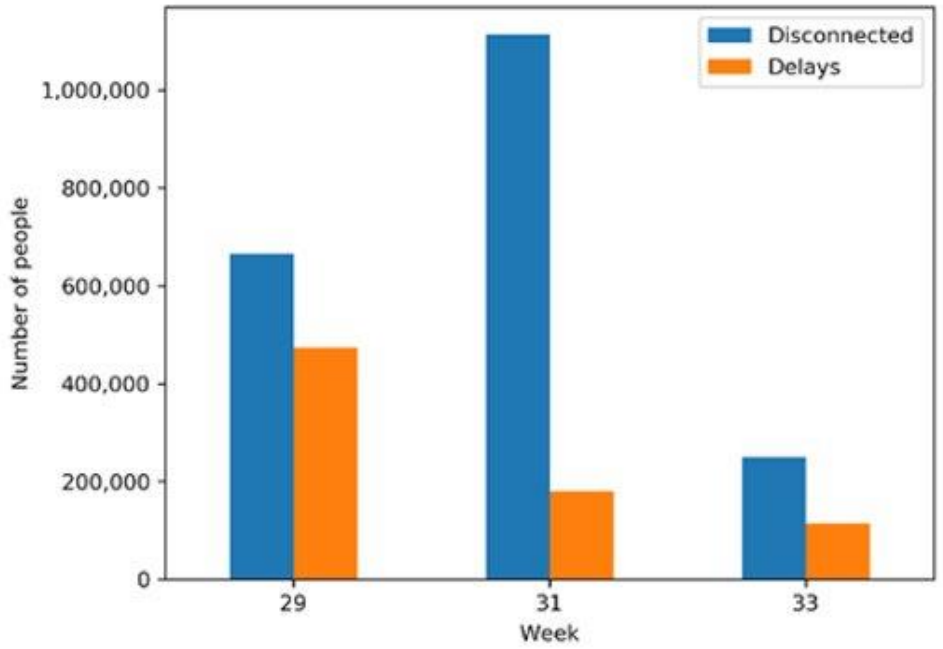
Criticality Tool: case study Myanmar

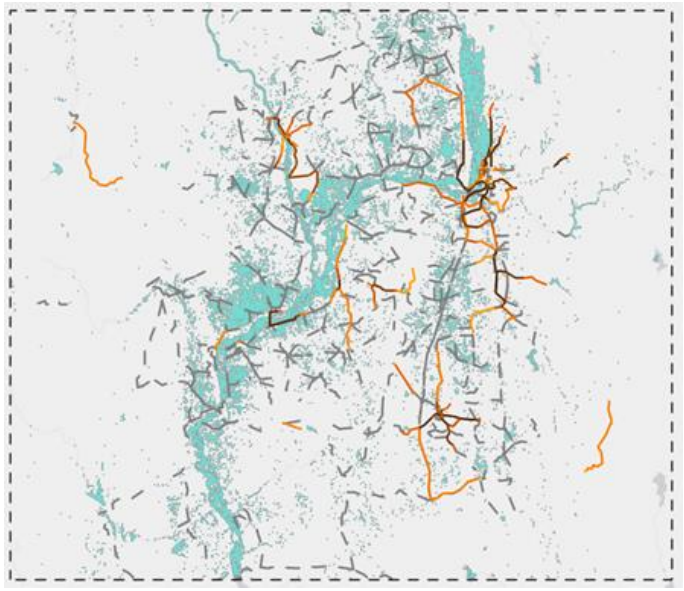


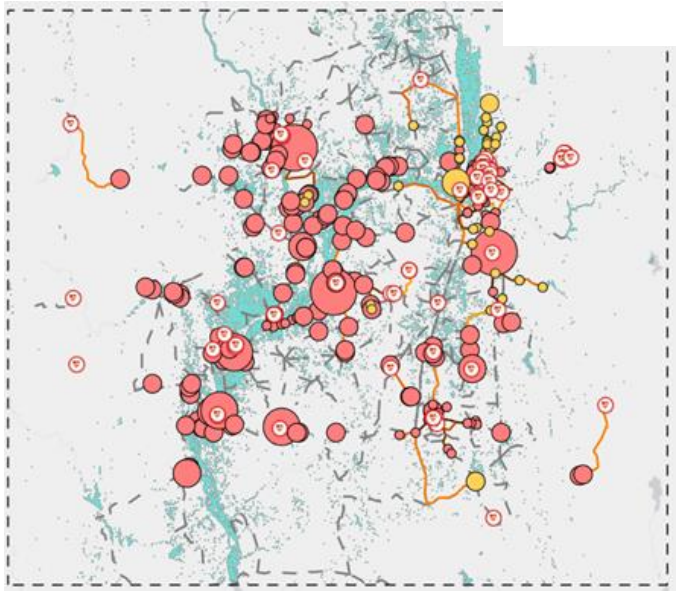
- Near Real-Time flood assessment based on sattelite observations
- Combined with redundancy based criticality
- NRT assessment of:
  - Disrupted roads
  - Number of villages flooded and number of people disconnected from healthcare
  - Evacuation routes and road usage density maps.



- Tested using tthe 2019 floods in Myanmar
  - 5 weeks of floods due to monsoon rain
  - 10 million people impacted







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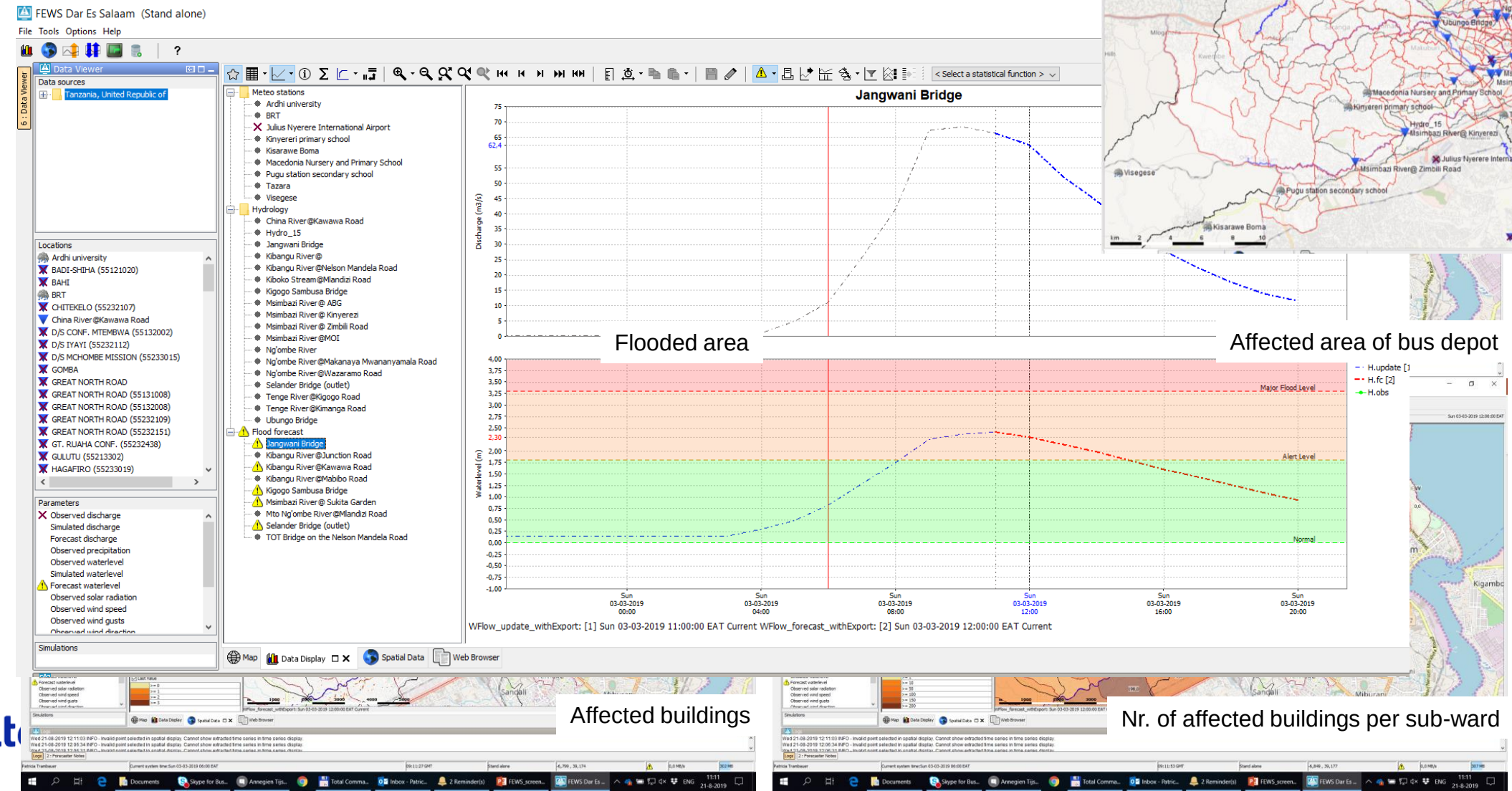
FIAT Impact model in Delft-FEWS – Example of CWW

Forecast issued on 3rd March 2019 at 12 EAT



But we want to hear from you!

Mentimeter:

Go to **www.menti.com** and use the code **40 90 49**

Open discussion

Herman.Haaksma@deltares.nl
Patricia.Trambauer@deltares.nl

Contact

www.deltares.nl

@deltares

linkedin.com/company/deltares

info@deltares.nl

@deltares

facebook.com/deltaresNL