



# Data Infrastructure for Emergency Response and Decision Support

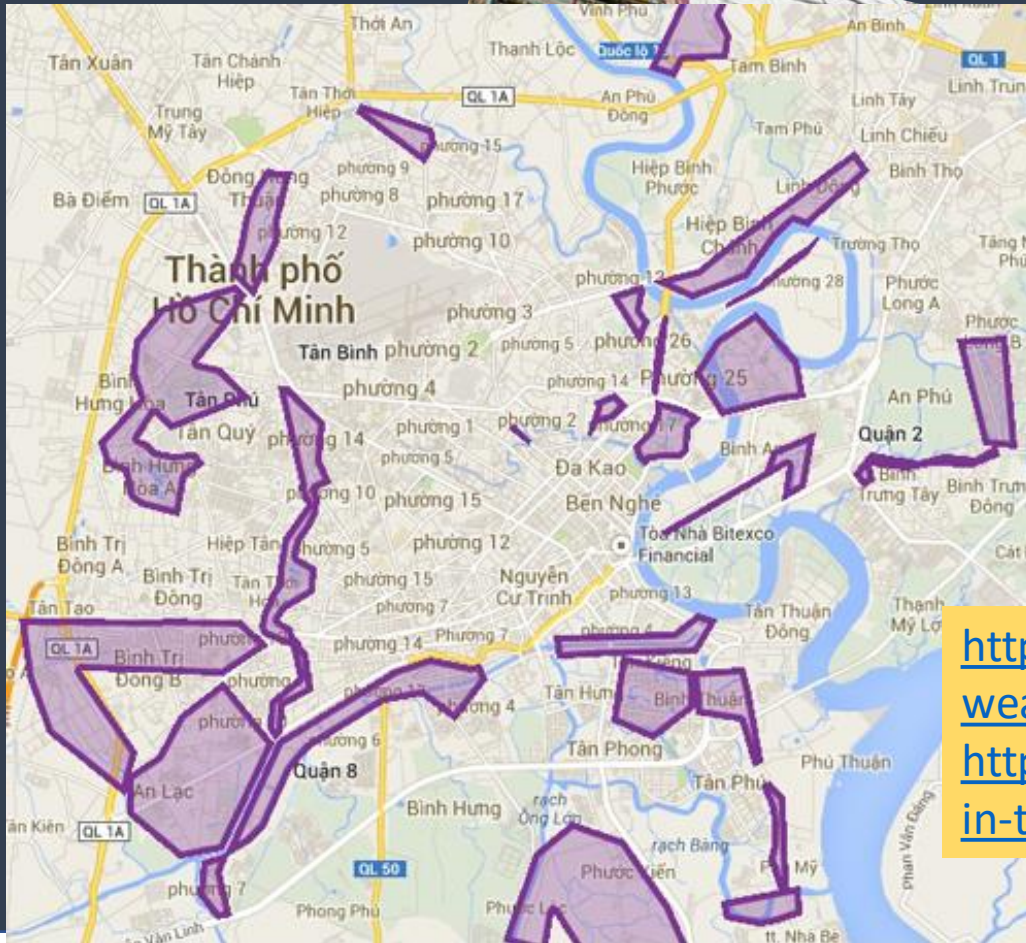
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# So, what's the problem?



<https://www.cnn.com/2020/10/21/asia/vietnam-floods-weather-intl-hnk/index.html>

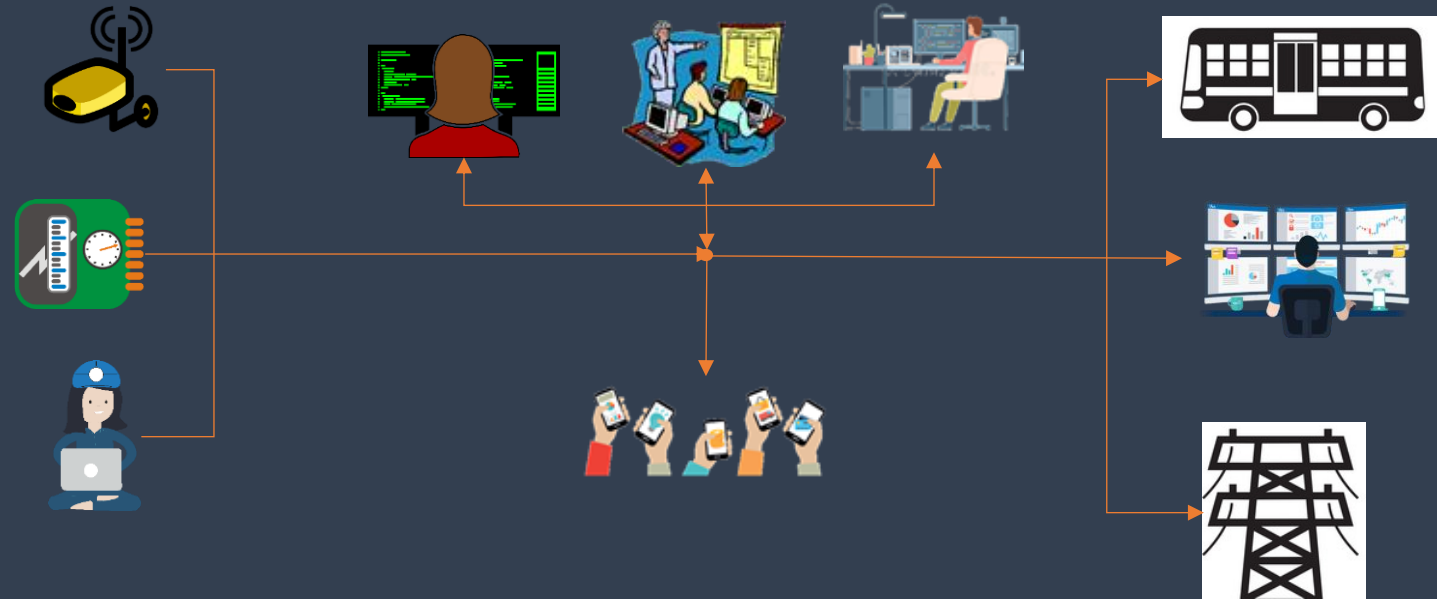
<https://www.uu.nl/en/research/sustainability/land-subsidence-in-the-vietnamese-mekong-delta>



# A peer-2-peer data access network

## Characteristics:

- Timely access
- Multiple data sources
- Ready-to-use solutions
- Multiple solution scenarios
- Multiple analysts/modelers
- Multiple end-users





# Gaps to address

- An infrastructure to crowd-source SCC data and solutions
- Technical gaps
  - Network mapping complexity – automating configuration process
  - Hybrid infrastructure – p2p + cloud platform
  - **Reliable services**
- Pilot project
  - Focus on “problems that can be solved”: **urban flood prediction and alert**
  - Data sources – as many as possible
  - Modelers (multiple expertise); users (many purposes)



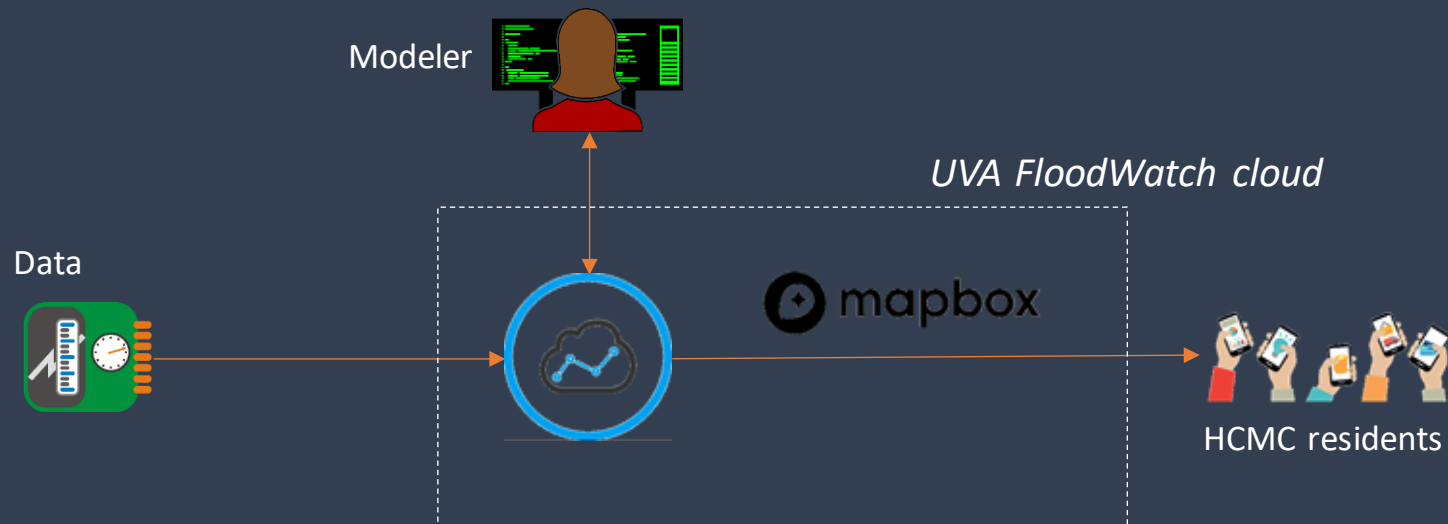
# Engagement strategy

- Having the right partnerships:
  - Research partner has a **stellar reputation** and strong network to source data
  - City partner in the **right position** to convene, disseminate
  - The proposed solution is **novel and relevant**
- Implementation process
  - Pilot with last year's data
  - Symposium/exhibition to engage interest and contribution
  - Make solution available to city/people (direct dissemination to people is actually fairly easy)
  - Inviting other cities to participate



# Progress to date

- Software stack installation, training
- Identify key data sources, verified modeling/prediction efficacy
- Launched/tested cloud infrastructure to host modeling





# The OTHER problem

- Complete shutdown due to COVID





## Next steps

- PI transfer/ establish team
- App development and roll out
- Organize exhibition event
- (new) develop/implement training activities on data infrastructure, cloud architecture, app development aimed at environmental science community





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