Leader: Jurjen Wagemaker
Google docs note taker: ---- (determine in group)
Presentor brief summary: ---- (determine in group)
Logistics:

- Spend 5-minute max to do a quick introduction among all in your group (name, what institute do you work for)
- Determine who takes notes and who will present a summary of the outcome of this breakout this afternoon.
- Make small subgroups (3-5 people) and answer each of the questions below. Take for each question ~15-20 minutes in your small subgroup and brief back to larger breakout group (~3-5min each subgroup) for the note taker to capture into google doc.

TASKS - ONLINE AND SOCIAL MEDIA
Crawling the internet and social media and mining these massive data streams for useful information about floods is a fast-growing field and one that has gained a lot of momentum in the private sector.

1) What latencies (of EO, of other data around) do you think could be filled by using citizen observations? (Per latency, describe which use-case(s) would this benefit?)

Problem with WhatsApp- you have to join a group- some disaster management offices do this
[PUT NOTES HERE]
Using social media for urban flooding, where both modeling and remote sensing has limitations. Detecting events that may not be detectable (e.g., low-level, disruptive flooding (smaller spatial footprint) or flash flooding (quickly occuring)) by other methods.

You may use this format per use-case

Title: Example 1	
The problem of	*No getting a forecast alert for region X*
Affects	*Our organisation preparing for floods in time*
The impact of which is	*People not being helped in time*
A successful solution would be	*Getting a warning system with a 2 day lead forecast for floods in region X*

Title: Example 2	
The problem of	*Not having an overview of urban flood information within 24 hour period*
Affects	*Our organisations' ability to acquire emergency funds for response activities*

The impact of which is	*There are less resources to help citizens*
A successful solution would be	*Realtime flood extent maps in the city on the basis of Twitter*

Title: Nuisance Flooding	
The problem of	*nuisance, low-level flooding events*
Affects	*Quantifying where/when flooding occurs and who is impacted for future projections of flooding*
The impact of which is	*Disruptions (commute, business) or direct/indirect losses for lower income levels*
A successful solution would be	*Building historical records of nuisance flooding locations/events from social media for model validation and impact assessments*

Title: Urban flooding	
The problem of	*Identifying floods in urban areas*
Affects	*Maps for response and insurance*
The impact of which is	*Poorer response and financial protection in areas where most of the people live!*
A successful solution would be	*Timely estimates of flooded urban areas to validate/complement estimates from models/remote sensing*

Title: Assessing flood impacts and magnitude	
The problem of	*Forecaster Bias*
Affects	*Having one or two individuals assess the impact of a flood may result in either under or over-estimates of the impact of the event*
The impact of which is	*Misunderstanding of magnitude of event by responding agencies and meteorological organizations*
A successful solution would be	*Looking at twitter trends compared to average trends in coordination of meteorological information*

Title: under reporting after the initial shock of event	
The problem of	*Fatigue of reporting floods (311)*
Affects	*The impact of the event is under-reported the longer it persists*
The impact of which is	*Perhaps lower assistance during an emergency, longer waiting time for funds*
A successful solution would be	*Reiterate that reporting magnitude throughout the event will help them with*

	insurance claims, or fix the problem

Title: alerting of unexpected foods	
The problem of	*Floods occuring and wanting to be on the front foot to be able to inform decision makers*
Affects	*Operational forecasting centre*
The impact of which is	*Reputational risk of not knowing of all flooding in real time*
A successful solution would be	*Using real time twitter data to alert of flood incidents*

Title:	
The problem of	
Affects	
The impact of which is	
A successful solution would be	

2) What content would be helpful for these latencies? I.e. what media types (twitter, blogs, news online, photo feed etc) and what kind and content of observations (embankment breaches, water depths, etc) for example?

Nuisance/Urban Flooding: twitter (photos and posts) for real time impacts (how severe is flood based on impacts (splitting human and physical impacts), systematic tracking of recovery from flooding, measuring duration of flood itself → content = duration, location, speed, impacts (physical (e.g., depth, speed) and human (e.g., service disruption, emotional response)), success of decisions (e.g., are people actually heeding the evacuation call)

[PUT NOTES HERE]

For all properties, consumers should know in advance, which ones have flooded in the past. https://www.nrdc.org/media/2018/180816-0. If we can get this information, Coastal Risk would include it in its Flood and Natural Hazard Risk Assessment Reports at www.floodscores.com.

3) What citizen observation data examples/ initiatives did you already come across, that you think are interesting?

[PUT NOTES HERE]

4) What new products could be realized by adding citizen observations to the mix?

[PUT NOTES HERE]

Coastal Risk uses Big Data to develop and sells property-specific, flood risk assessments at www.floodscores.com.

Hereunder a note already shared on the googledoc before we changed the questions:

1) *Generally, what are the access conditions (paid access/free)?*

[PUT NOTES HERE] Pay by credit card at www.floodscores.com. Professional grade, property-specific reports