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Eidgenössisches Departement des Innern EDI  
Bundesamt für Meteorologie und Klimatologie MeteoSchweiz

# **Delivering impact-based warnings: Why? For whom? How? Thoughts from MeteoSwiss**

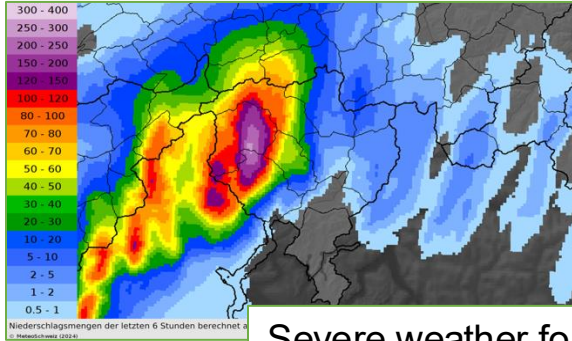
Evelyn Mühlhofer & Severin Kaderli

Roundtable 5, GOBEYOND 1st International Workshop, Sevilla

19.03.2025



# Impressions from last summer



Severe weather forecasts &  
Active alerts



**MeteoSchweiz**



Injuries & fatalities  
Extensive infrastructure damage  
Power & telecom outages



# The *concept* behind impact is simple, ...





# (a typical example of risk data)

**Visualization Prototype**

**Calls data**

Select a date:

Select a call category:

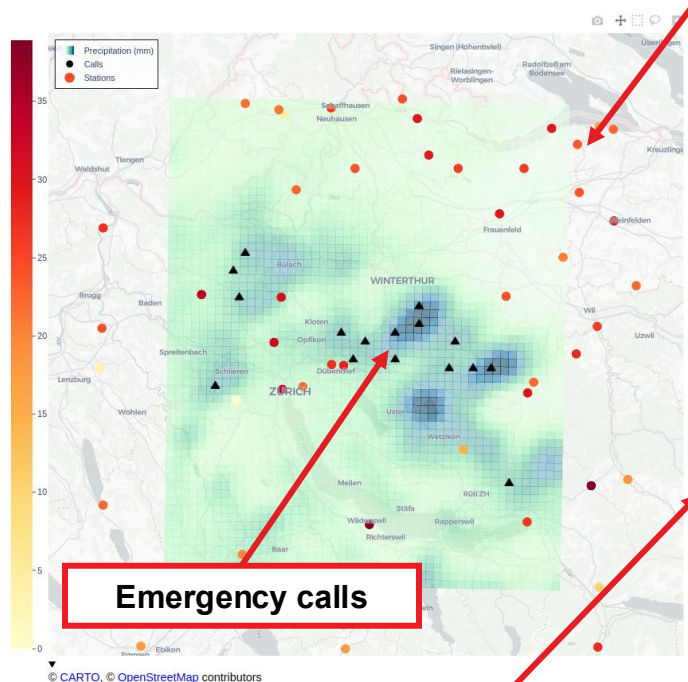
**Precipitation data**

Select a precipitation variable:

Select an accumulation window:

**Station data**

Select a station data variable:

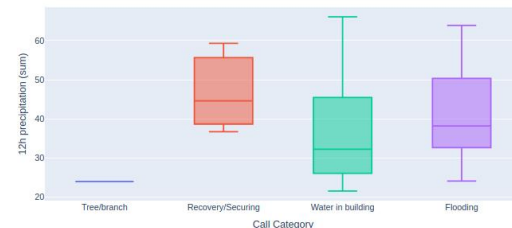


Station data

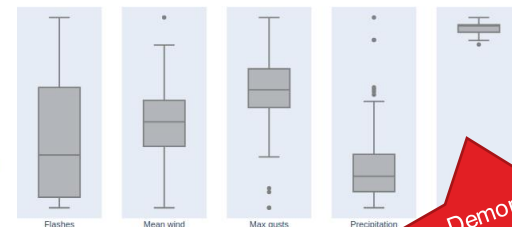
Call category distribution



Precipitation distribution of call categories



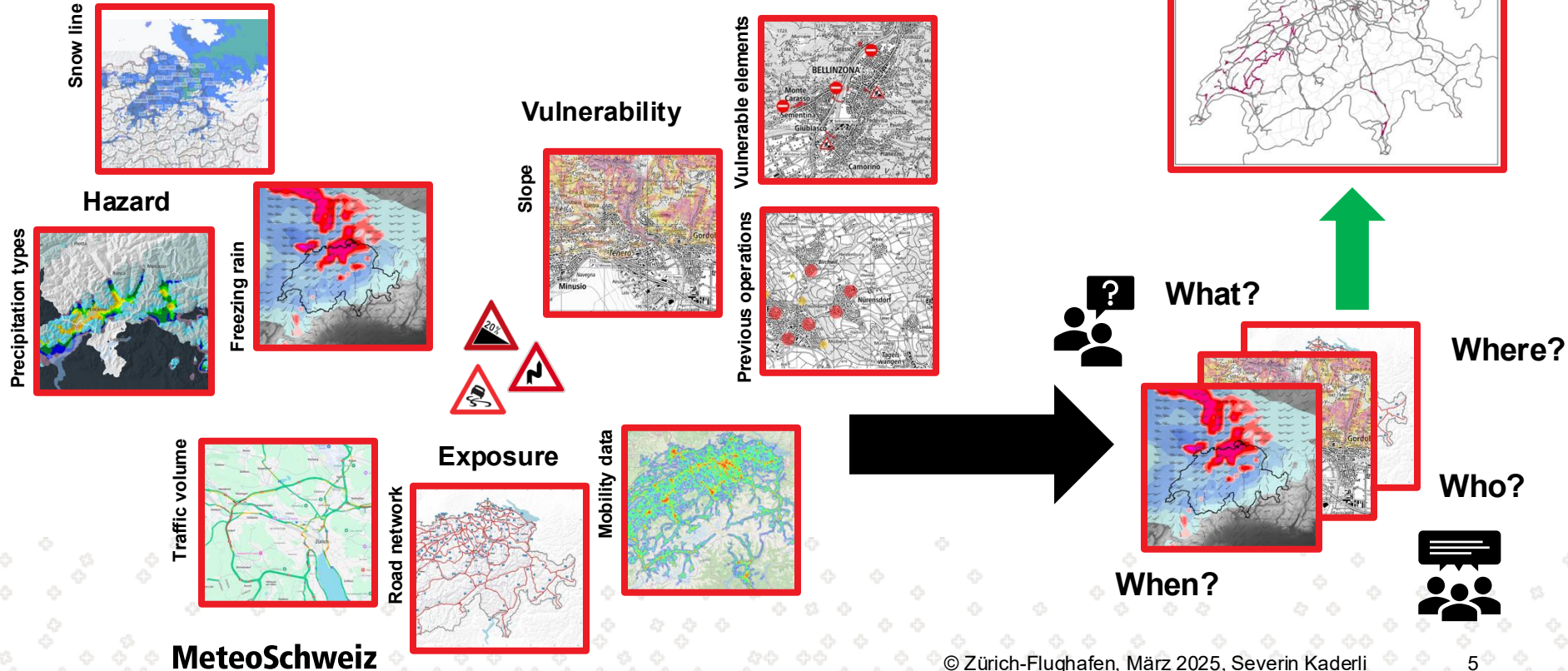
Distribution of station data variables



Demonstrator available



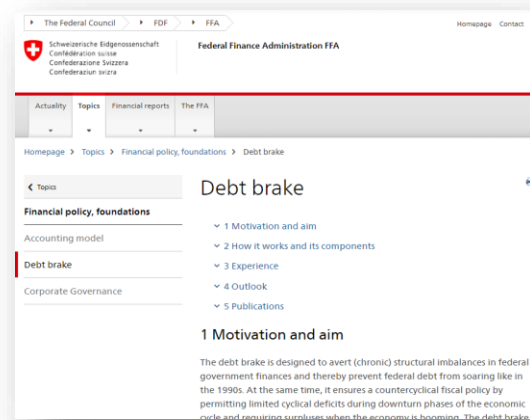
# ... but the specific use cases are not!





# GOBEYOND: Prototyping & showcasing for take-over by stakeholders

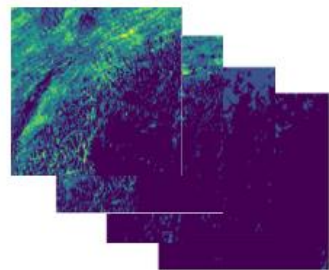
- Developing of «fancy platforms» **not in our mandate** or skills; services have to be maintained, but we cannot
- «Promoter of IBF & EWS»: Showcases to **motivate a paradigm shift** and move stakeholders to invest!
- While each showcased impact pipeline needs extensive data collection, a **common «processing core»** greatly standardizes things!



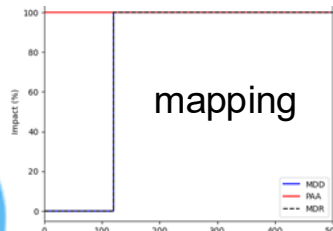
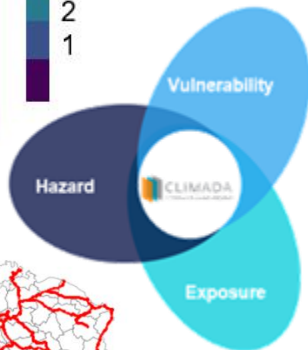
CLIMADA  
Economics of Climate Adaptation



# Scalability through shared & open tools

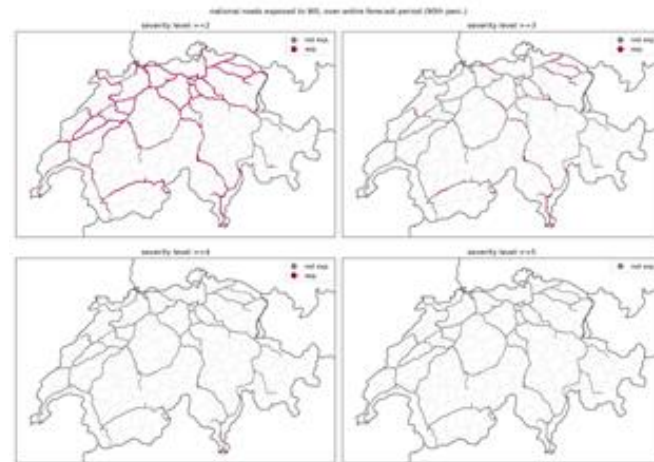


severity levels for  
wind & rain



'impact  
proxy'

critically exposed sections in  
road network



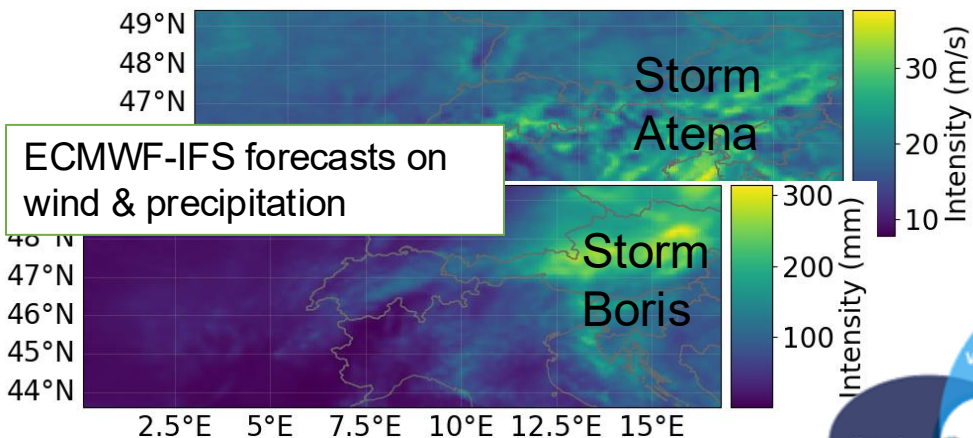
national road network

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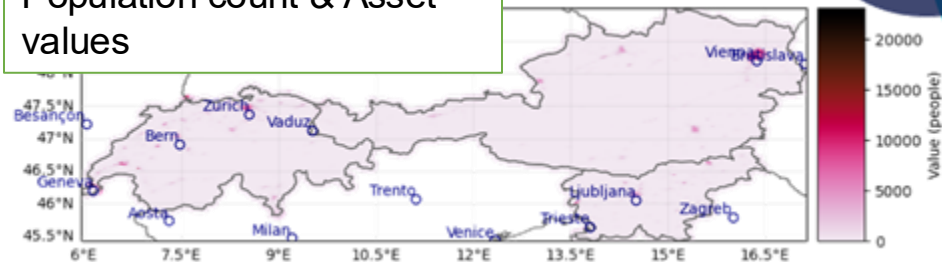
Demonstrator  
available



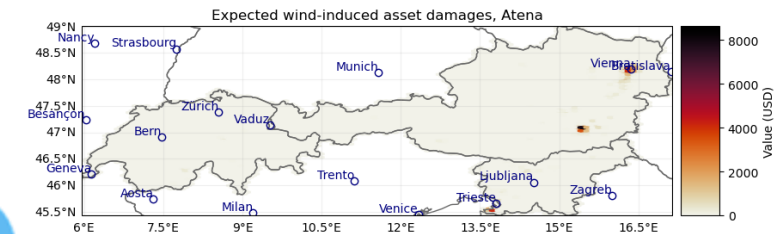
# Scalability through shared & open tools



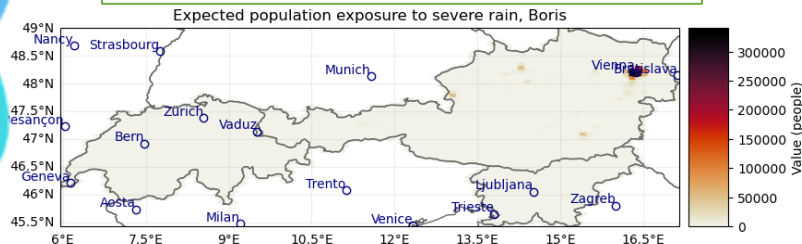
Population count & Asset values



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Multiple-risk impact forecasts



Demonstrator available





# Conclusions

- Impact-based early warning pipelines have to be highly user-specific (& local ?) to be useful
- (No) mandates and resources on this topic leave a gap between weather forecast providers & «clients» for IBF-EWS – *modus operandi* to be explored through GOBEYOD showcases
- Common, open-source, risk-aligned processing platforms lead to a shared understanding, community support, and easy transferrability

