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An event data base for the documentation of Germany-wide heavy rain events is presented. The event data base is accessible via a web portal which provides functionalities for finding and analysing events, linking precipitation data from radar with additional data sources, and allowing documentation of event-related damages. It has been developed on behalf of the LAWA (working group 'water' of the German federal states).

Main question

How to

- archive
- find
- view
- compare

heavy rain events ?

Why?

In order to:

- collect information
- make it available
- raise awareness
- build a basis for risk analysis & climate trend analysis

Key aspects

- Build a flexible and easy-to-handle platform informative for both expert users and the public
- Combine the advantages of two existing event data bases: the CatRaRe catalogues of the German Weather Service DWD (Lengfeld et al., 2021) listing heavy rain events since 2001, and the HydroNET event data base for North Rhine-Westphalia (Alderlieste et al., 2018)

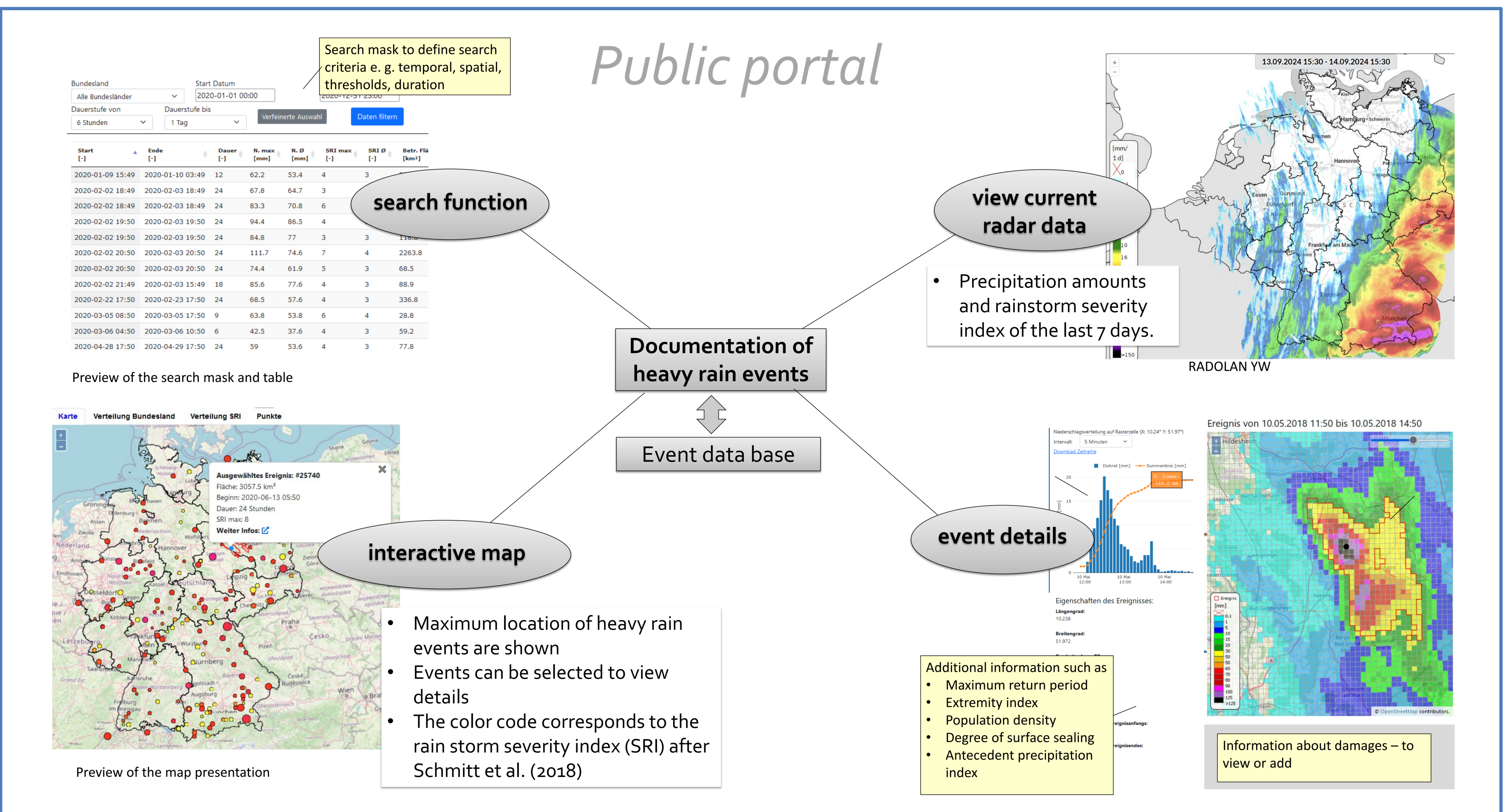
How this was addressed?

iteratively

- regular expert meetings
- preliminary structure and design decisions
- visualisation in powerpoint
- implementation on a test platform

Concept

- Use the CatRaRe Catalogue as event identifier with event-specific ID, time and affected area
- Search the Catalogue with individual search criteria
- Use the HydroNET database (www.hydro.net.com) to connect events with the related radar precipitation information of the DWD RADKLIM product (Winterrath et al., 2018a)



Status

The portal for the documentation of heavy rain events has been published in May 2024 at <https://starkregenportal.de/>

References:

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- Lengfeld, K., Walawender, E., Winterrath, T., Becker, A. (2021). CatRaRE: A Catalogue of radar-based heavy rainfall events in Germany derived from 20 years of data. Meteorologische Zeitschrift, 30(6), 469-487.
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