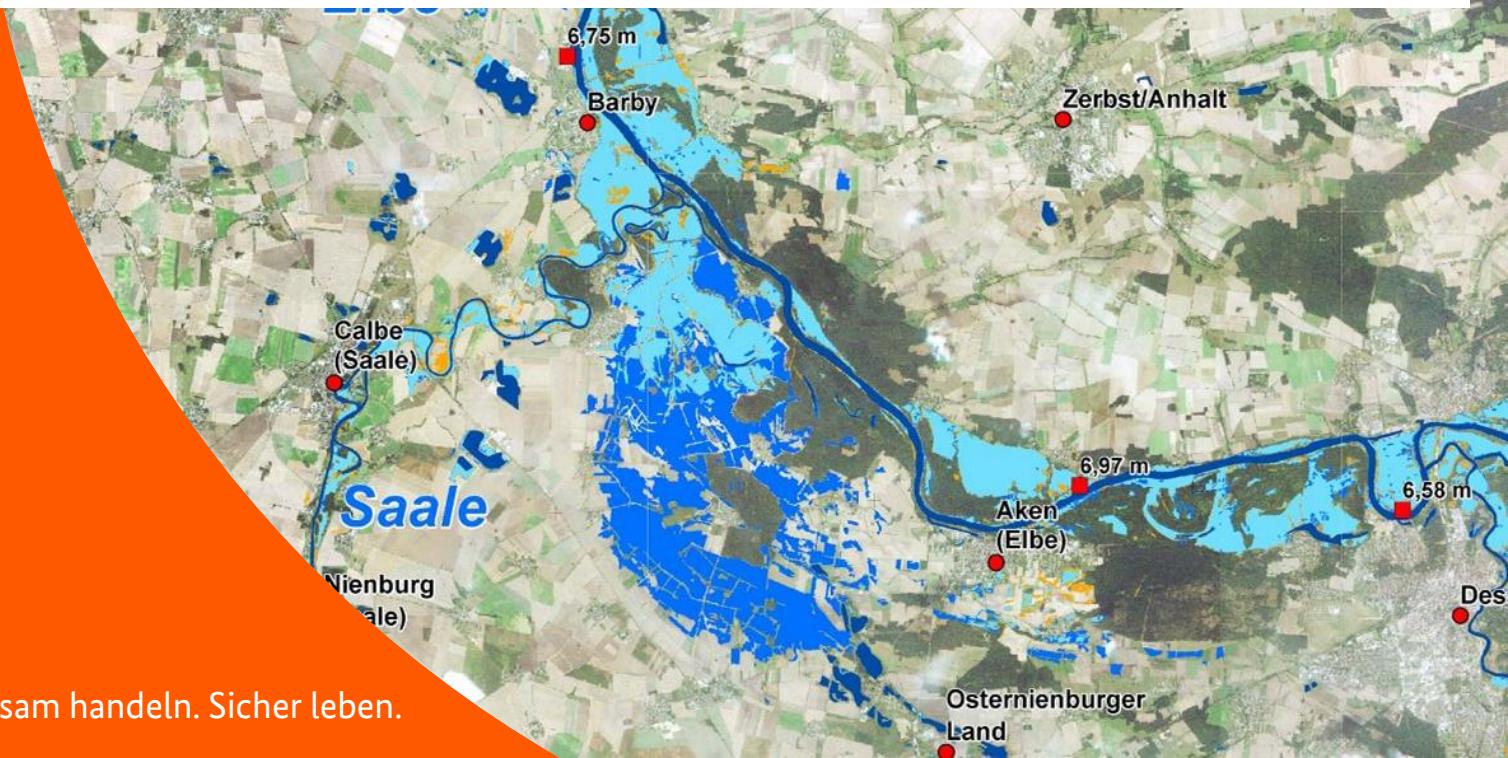




Bundesamt  
für Bevölkerungsschutz  
und Katastrophenhilfe

# Information support at national level

Perspective of the BBK



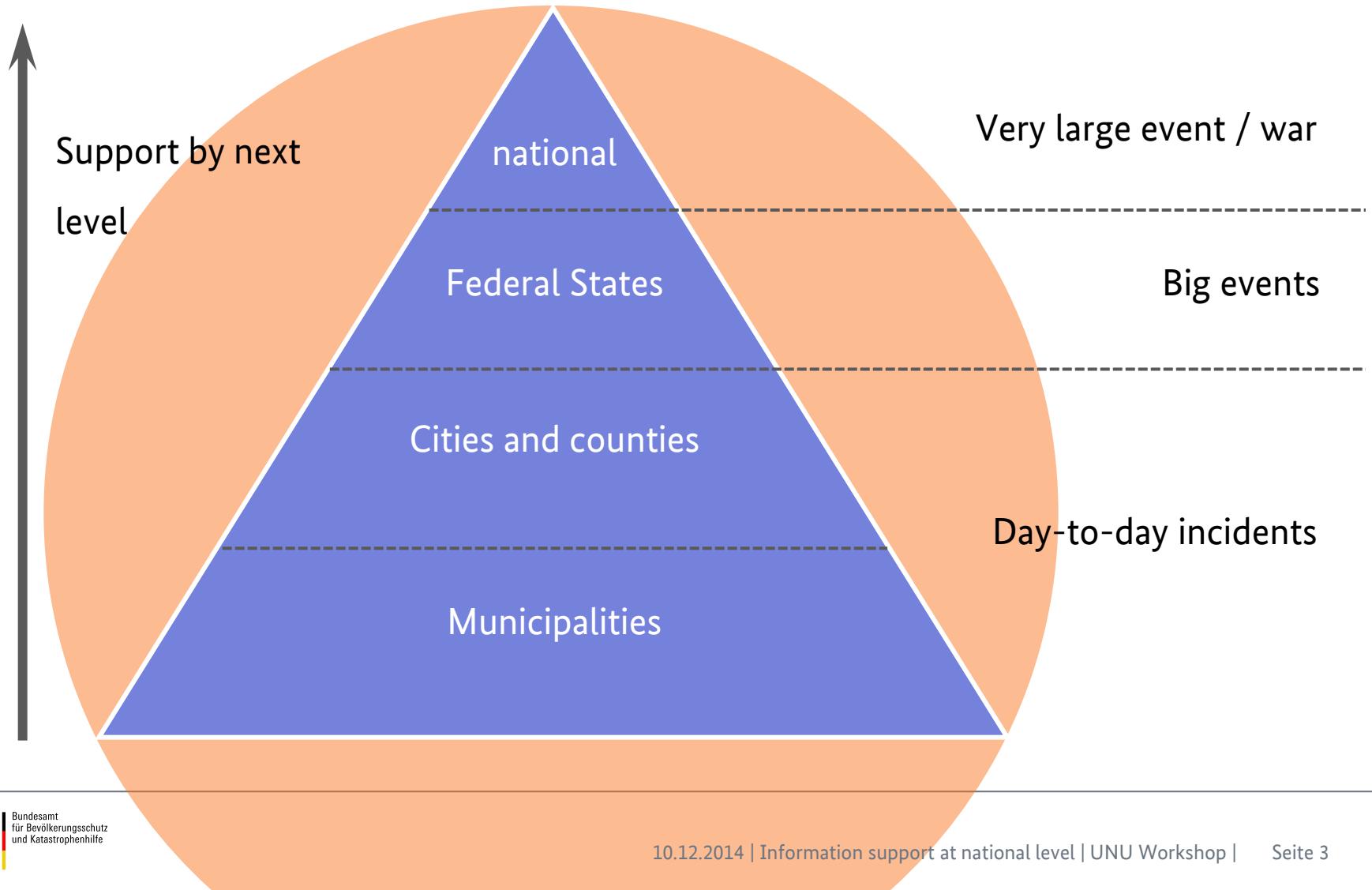
BBK. Gemeinsam handeln. Sicher leben.

# Agenda

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- Civil protection in Germany
- Risk analysis
- Response to the flood 2013
- Lessons learned

# Civil protection in Germany

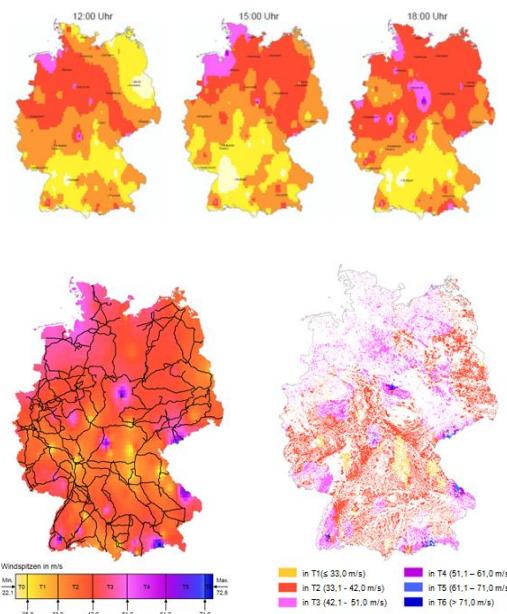


## Risk analysis at federal level

## Principles to determine potential damage:

## Scenario

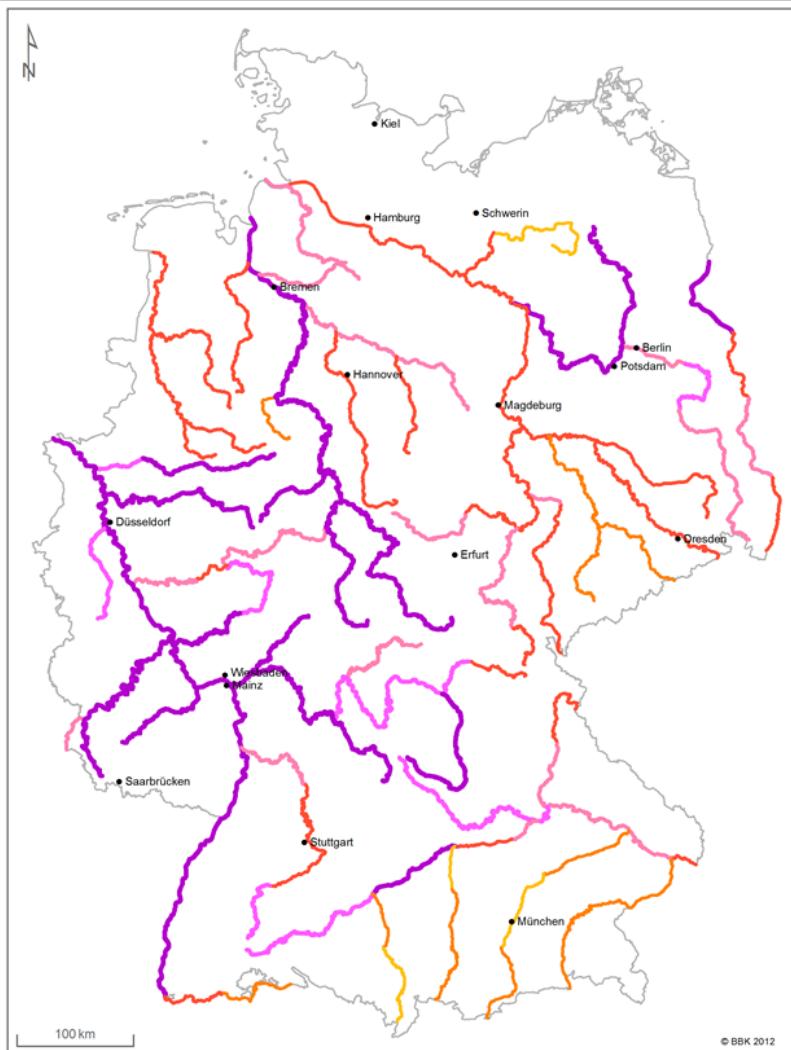
# GIS analysis



## Expertise

- Expert knowledge
  - Experience of reference scenarios
  - Studies/surveys
  - etc.

# Support with GIS - example



## Risk analysis „Extreme flood caused by snow melt“ (2012)

Klassen der HQ-Scheitelwerte:

- |           |            |
|-----------|------------|
| bis HQ 2  | bis HQ 100 |
| bis HQ 10 | bis HQ 200 |
| bis HQ 50 | > HQ 200   |

Datenbasis:

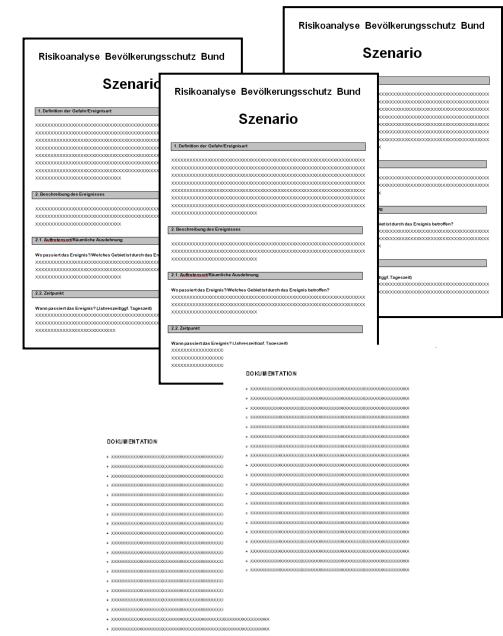
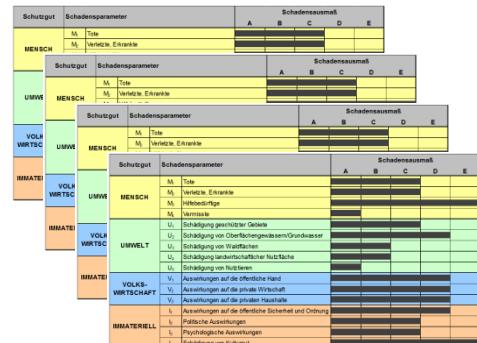
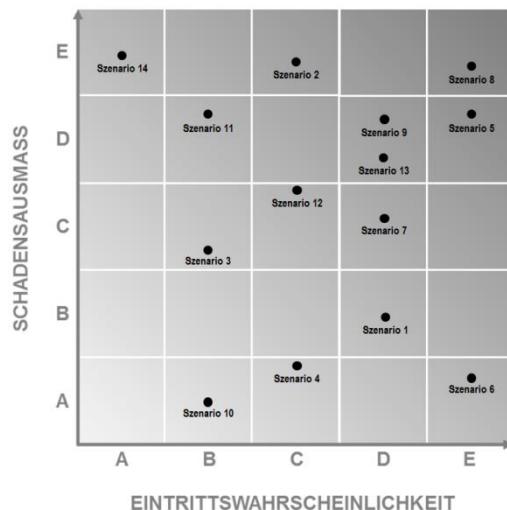
Hydrologische Daten: Bundesanstalt für Gewässerkunde (2012)

Hydrologischer Atlas von Deutschland (2003)

© GeoBasis-DE / BKG (2009)

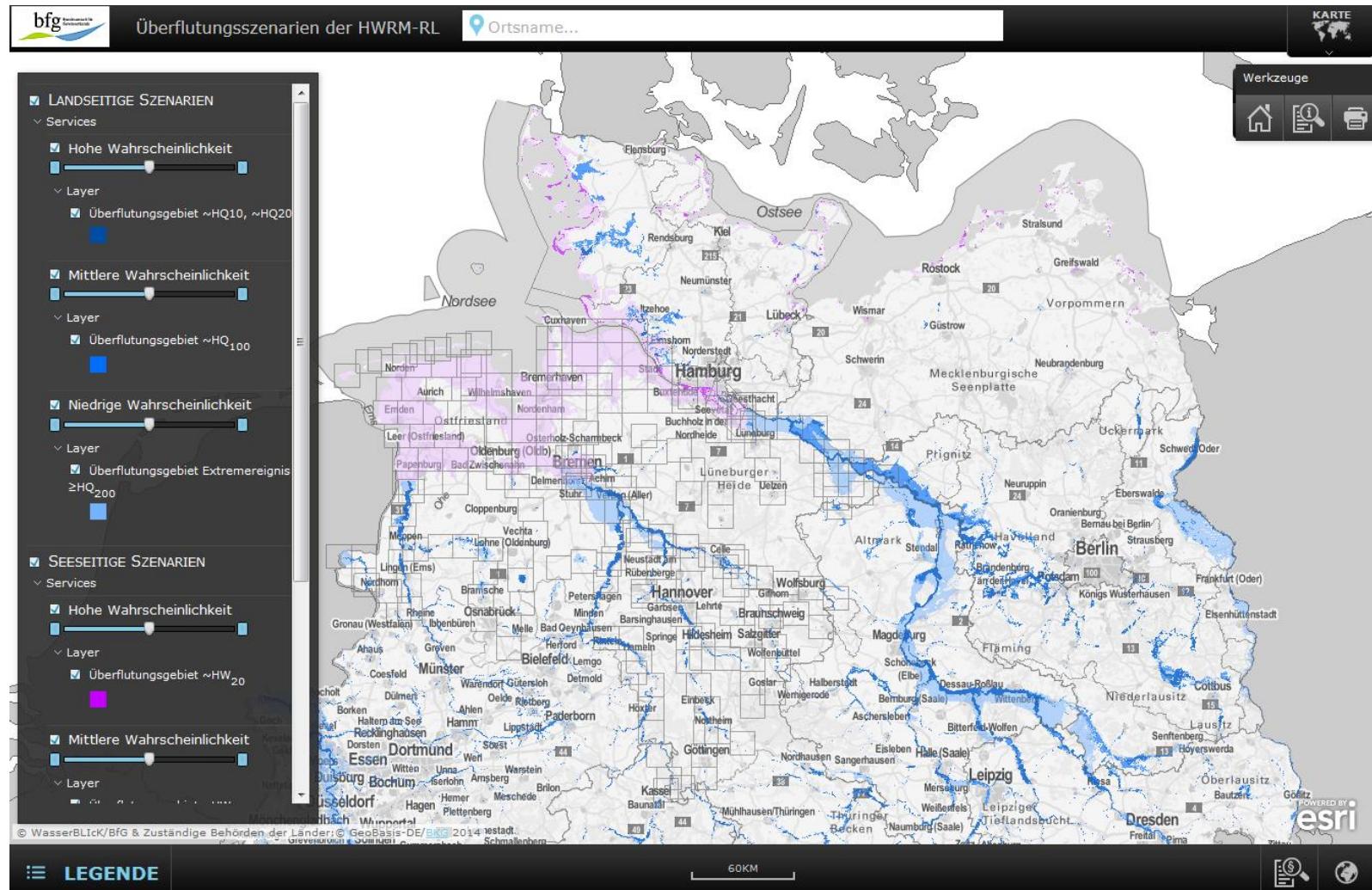
# Risk analysis at federal level

## Results of risk analysis:

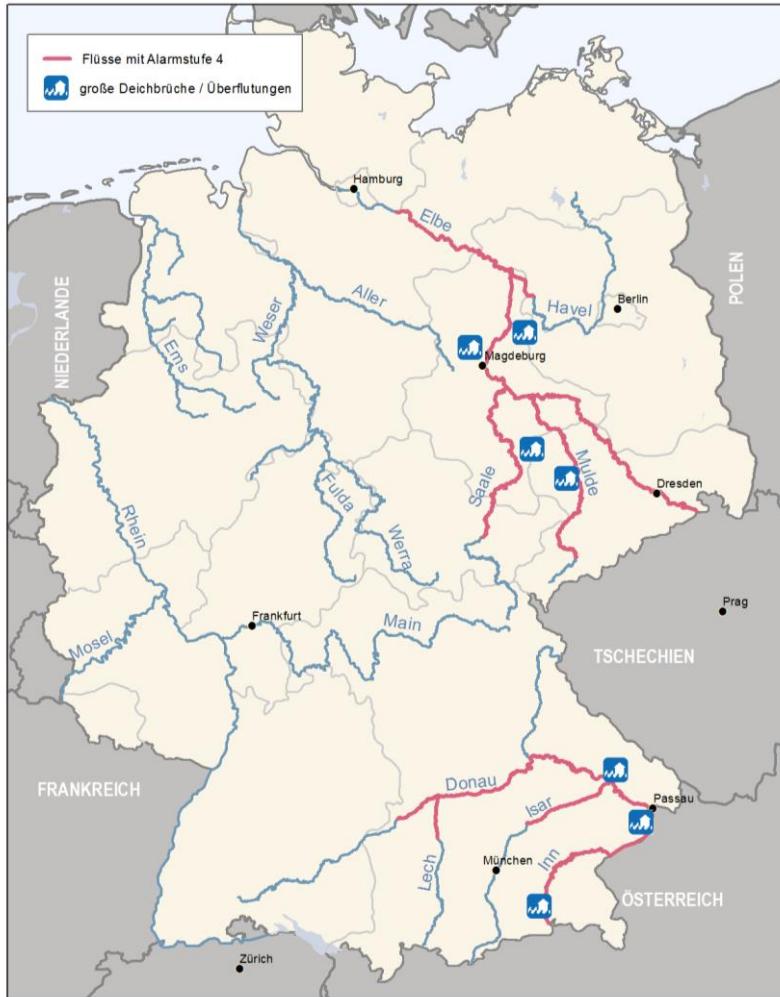


# Flood risk analysis by federal states – complete coverage for Germany

<http://geoportal.bafg.de/mapapps/resources/apps/HWRMRL-DE/index.html?lang=de>



# Floods in Germany June 2013



**National level → big picture!**

# Joint Information and Situation Centre



# Information management

- **Situation assessment**  
  > 4000 e-mails, > 700 situation reports , request for remote sensing imagery, ...
- **situational awareness**  
  47 situation reports , special reports for Ministry and Chancellor,...
- **Documentation und analysis**

**LAGEMELDUNG Nr. 47**  
des Gemeinsamen Melde- und Lagezentrums von Bund und Ländern (GMLZ)  
zu Hochwasserlage in Deutschland  
Stand: 01.12.2014  
Basis: hier neu

1 Hochwasser  
2 Hochwasser  
3 Hochwasser / Überschwemmung  
4 Hochwasser / Überschwemmung  
5 Hochwasser / Überschwemmung  
6 Hochwasser / Überschwemmung  
7 Hochwasser / Überschwemmung

**Bundesamt für Bevölkerungsschutz und Katastrophenhilfe**

**Hochwasserlage Niedersachsen (NI)**

**Bundesamt für Bevölkerungsschutz und Katastrophenhilfe**

**Koordinierung**

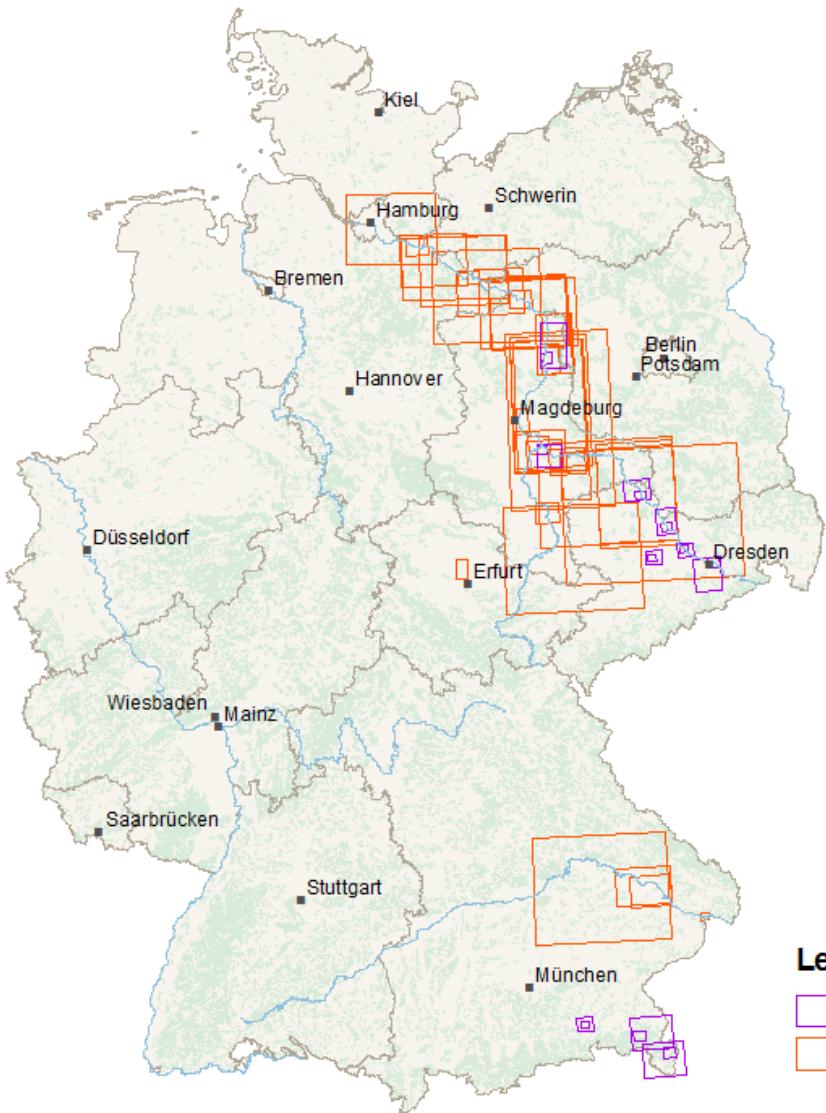
ASB  
Bundeswehr  
Deutsches Rotes Kreuz  
Die Johanniter  
Malteser

# Supporting management of resources

- **43 requests of federal states. Procurement of:**
  - **~5.600 rescue personnel,**
  - **> 5 Mio sand bags**
  - **Special resources** (high capacity pumps, special equipment,...)
  - **Transport capacity** for ~1.000 metric tons of goods



# Regions captured by satellites

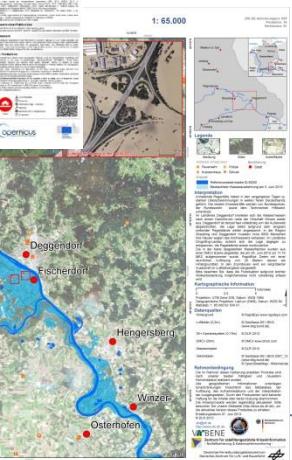
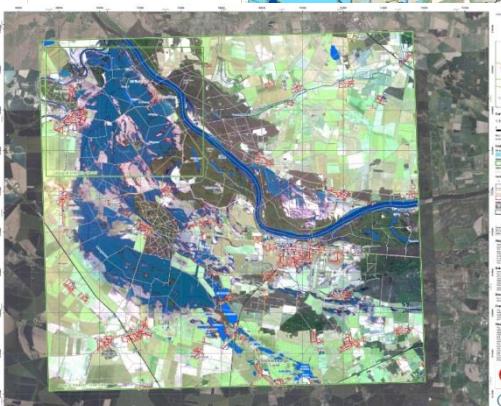
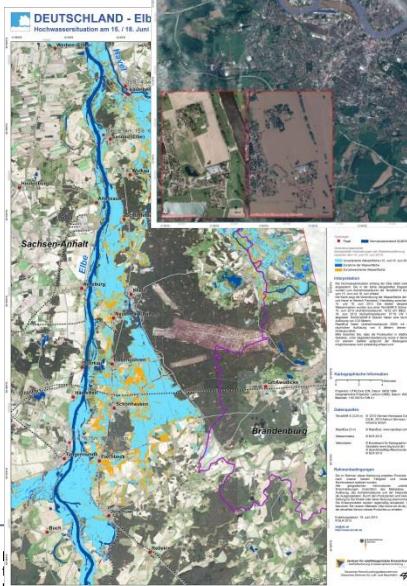
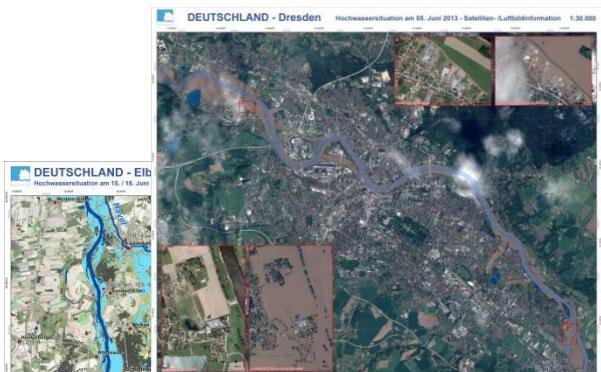
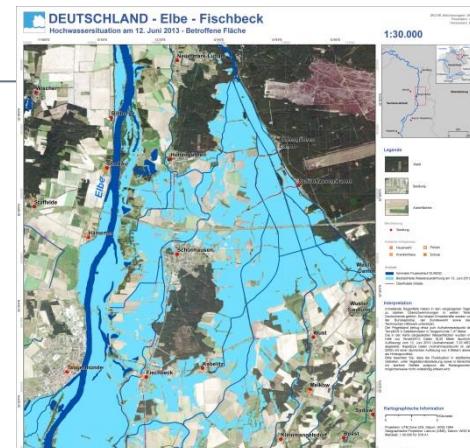
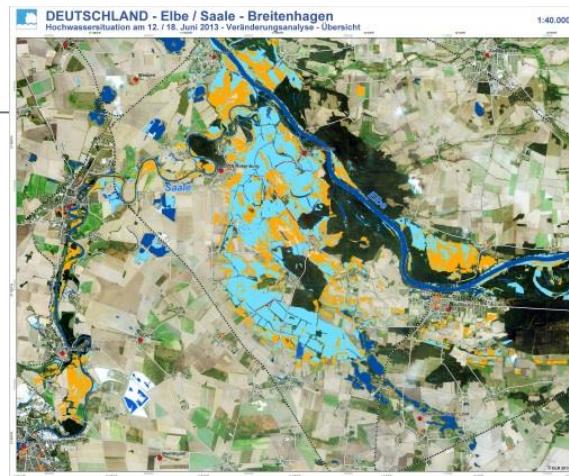


ZKI Service für Bundesbehörden (ZKI-DE)  
Analyseprodukte zur Unterstützung des  
Notfallmanagements

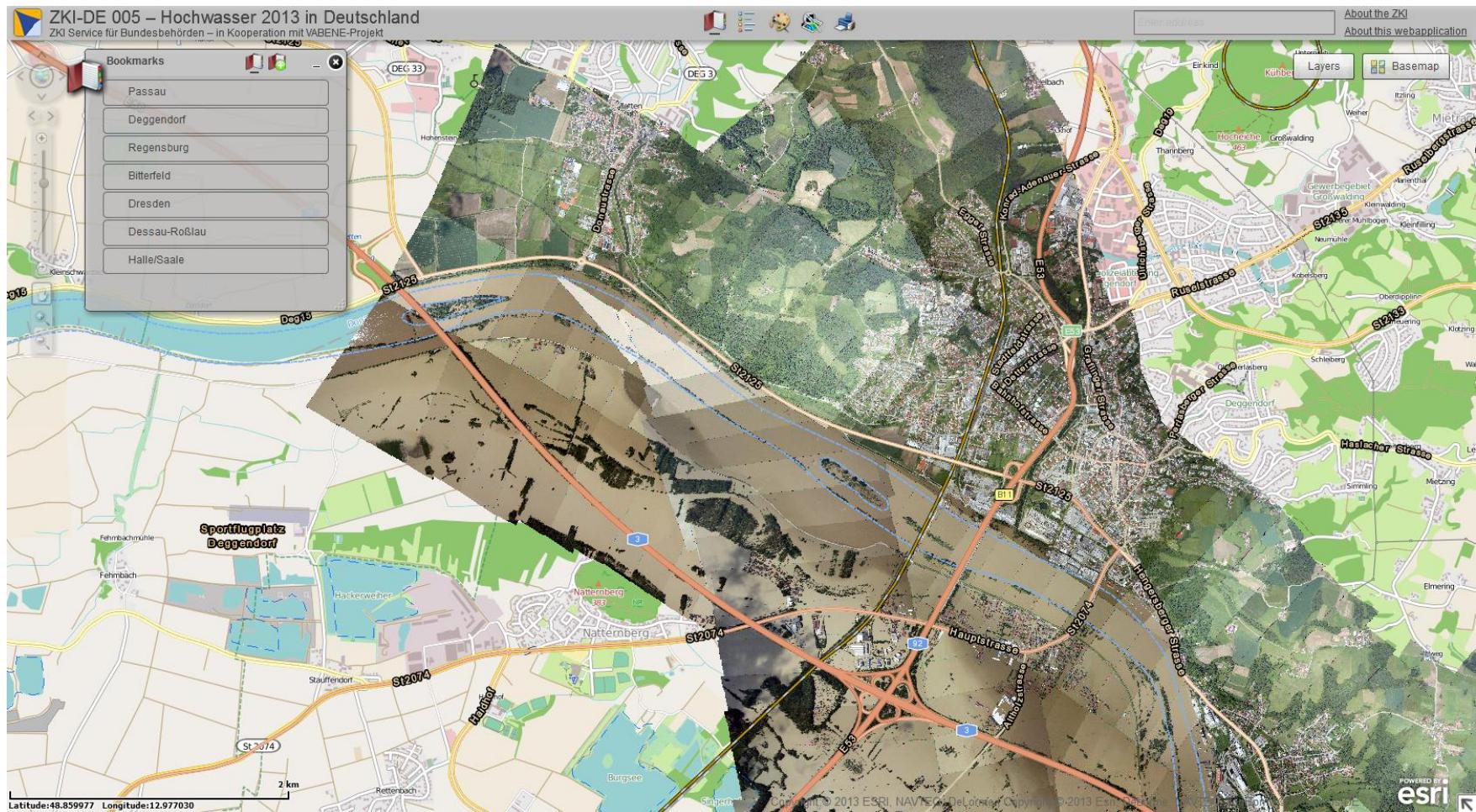
- ⇒ In total about 51.000 km<sup>2</sup>
- ⇒ ca. 70 products distributed

## Legende

- COPERNICUS-EMS
- ZKI-DE Service



# Aerial imagery by German aerospace centre



# Remote sensing products have been used for

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- Situation reports
- Documentation
- Flood protection counselling
- Calibration of models
- Analysis of affected areas / infrastructures
  - agricultural area
  - monuments
  - land property
  - claim for compensations
  - .....

# Lessons learned – spatial information

- Who has what kind of data?
  - ⇒ facilitator for crisis information
- What can be done with geo information?
  - ⇒ facilitator for geo information
- Preparation is of utmost importance !



# Lessons learned – general

- Need for information exchange standard
- Need of a commitment of regional and local level to provide standardised information
- Communication to the public is key (because they are affected!)
- Mediation of conflicting interests



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# Thank you for your attention!

## Contact

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Federal Office of Civil Protection and Disaster Assistance

Division I.1: Crisis management – principles and IT-processes

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