



*A lightweight citizens information portal
for extreme weather events*

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Data Week 2022

06.07.2022 (11:30 – 11:45)

CISS TDI GmbH



about us

*The greatest sight there is is the world
- go see it.*

- Kurt Tucholsky





CISS TDI GmbH



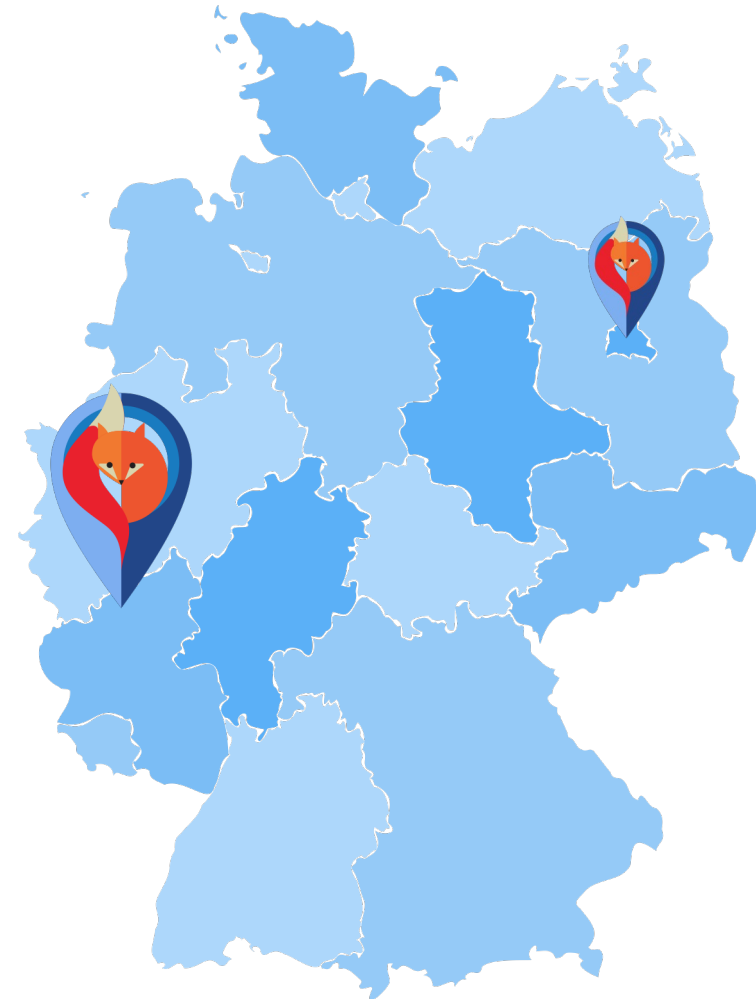
Established: 1982



HQ: Sinzig / Rhein



Employees: ~37



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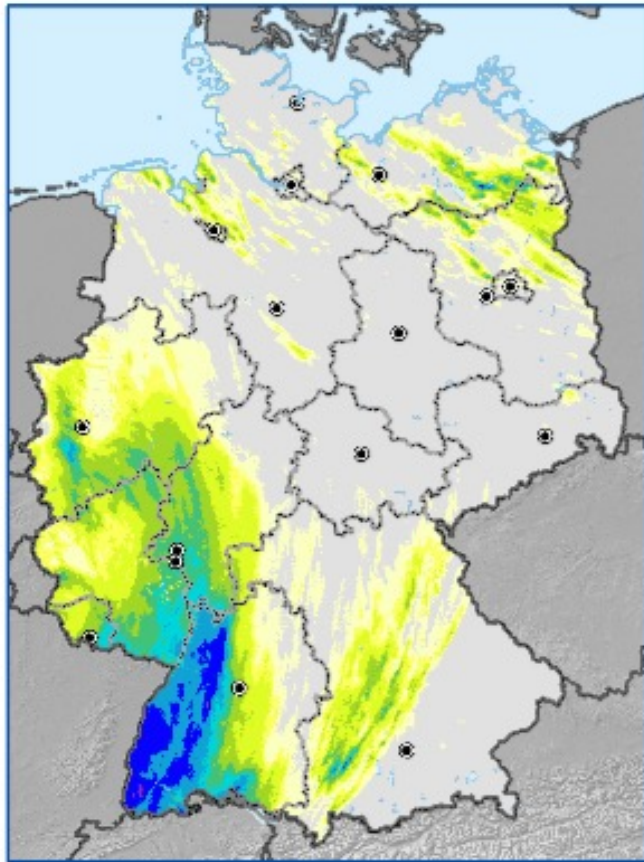
c.frank@ciss.de

www.ciss.de

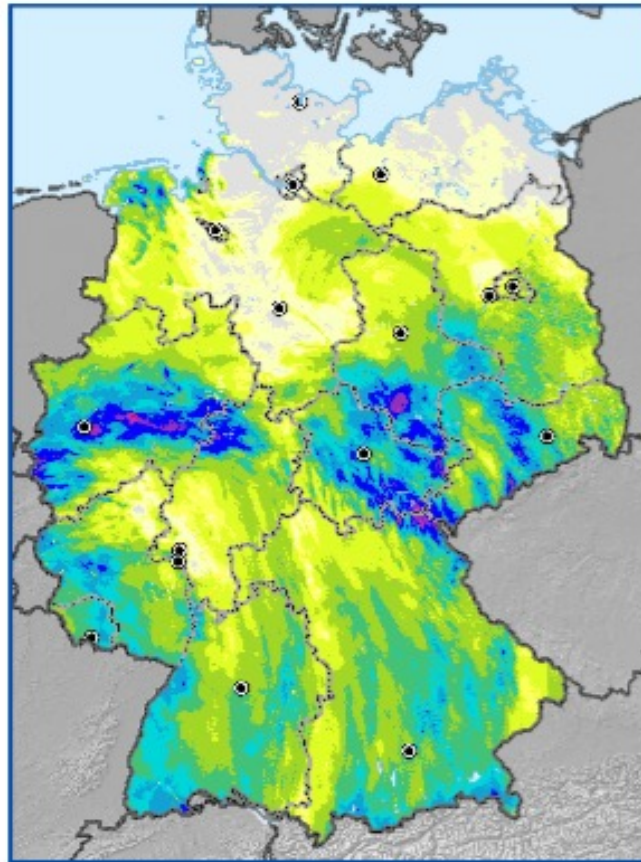
flood of the century (14.07.2021)

Analysis of precipitation (DWD, Hydrometeorologi)

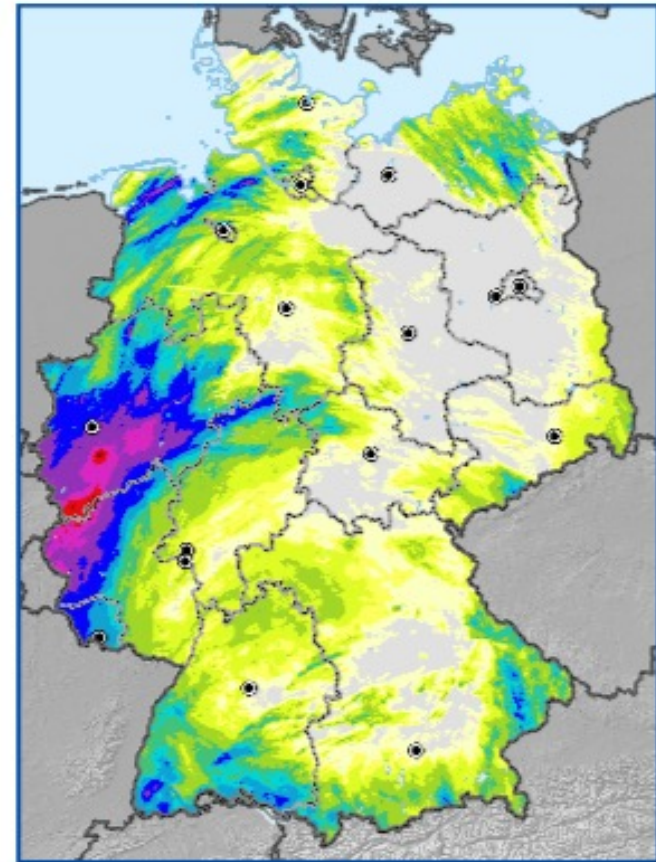
12. Juli 2021, 05:50 UTC
bis 13. Juli 2021, 05:50 UTC



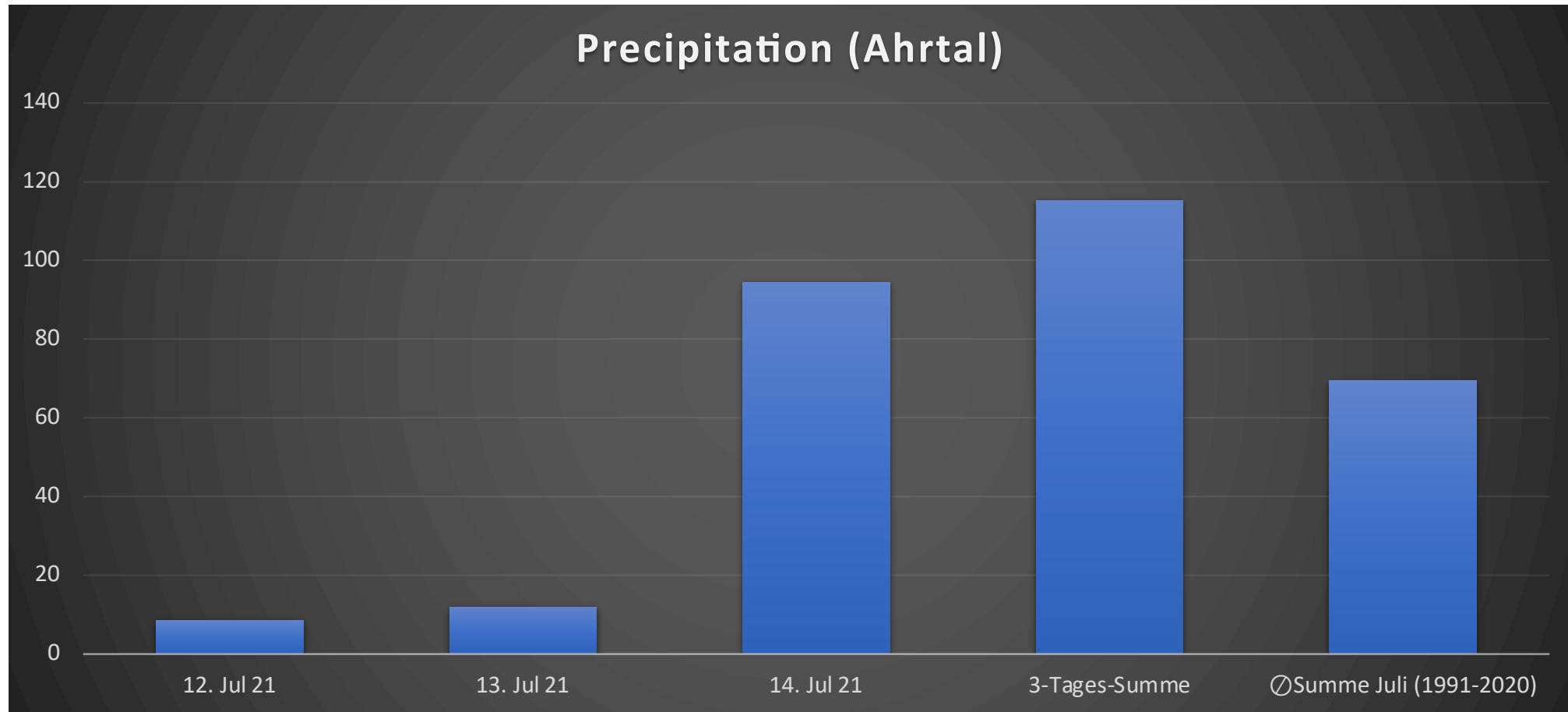
13. Juli 2021, 05:50 UTC
bis 14. Juli 2021, 05:50 UTC



14. Juli 2021, 05:50 UTC
bis 15. Juli 2021, 05:50 UTC



At one day more showers than the average sum of the last years







Destroyed Infrastructure

- *Streets*
- *Bridges*
- *Telecommunication*
- *Power grid*
- *Gas grid*
- ...



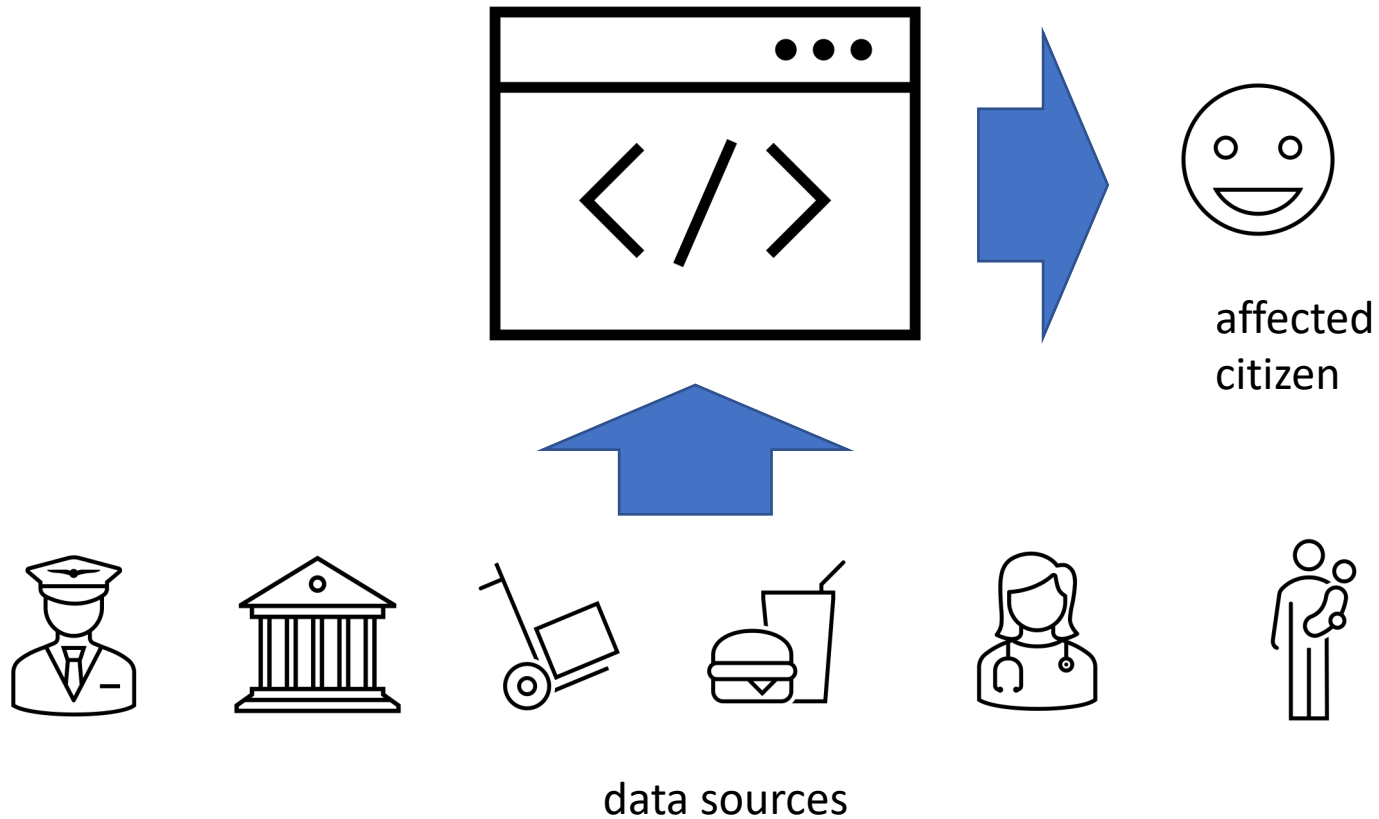
Where to find

- *Medical care*
- *Childcare*
- *Information points*
- *Relief supplies*
- *Waste zones*
- ...



how information was distributed

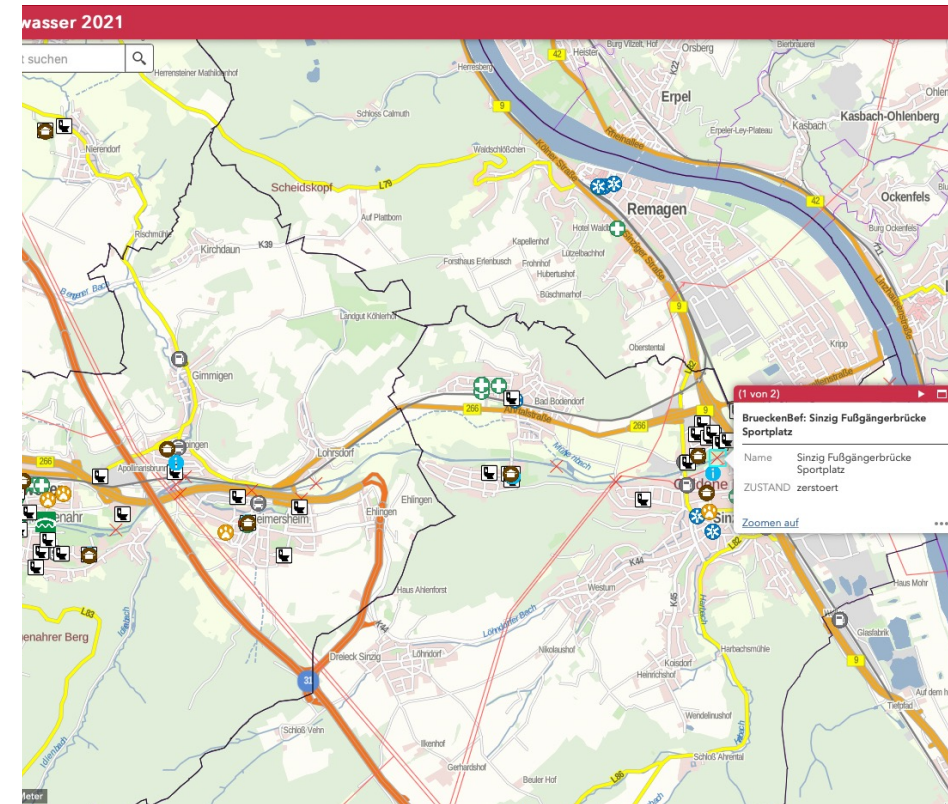
Goal: *citizens information portal*



Official Data Portal (ADD)

(Supervisory and Service Directorate)

- Data was managed by 1 person (receiving updates via e-mail)
- Long update cycles
- No optimization for mobile devices
- No offline usage
- ESRI licensed

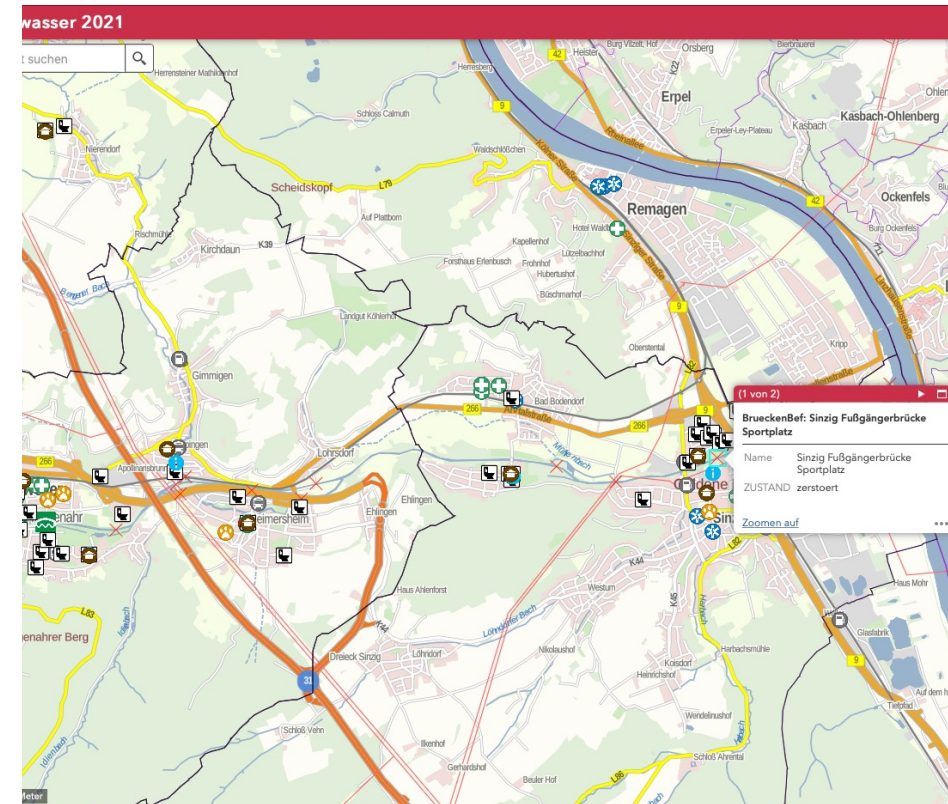


<https://lvermkv.maps.arcgis.com/apps/webappviewer/index.html?id=da78a306408441769ff803ec349789bc>

Official Data Portal (ADD)

(Supervisory and Service Directorate)

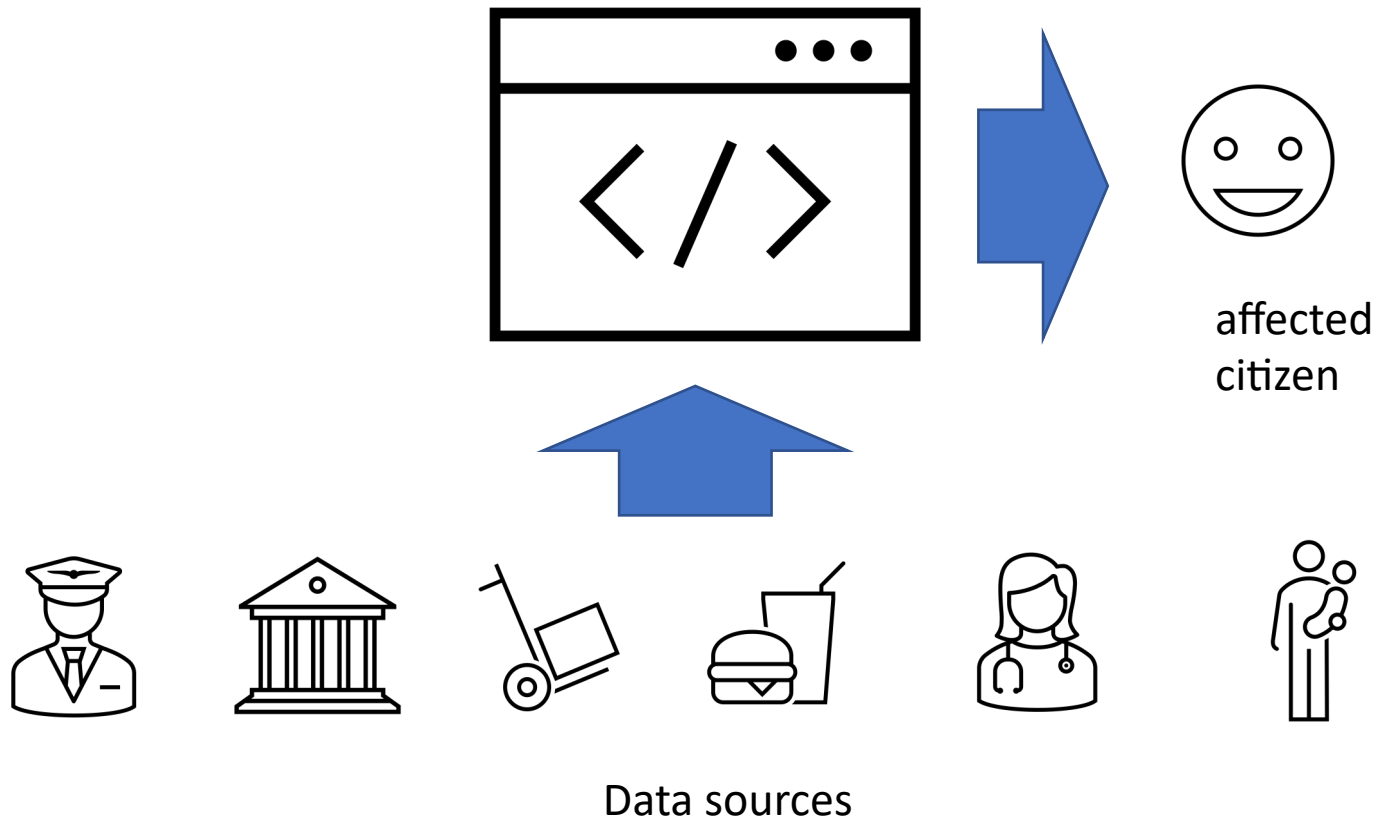
- Data was managed by 1 person (receiving updates via e-mail)
- Long update cycles
- No optimization for mobile devices
- No offline usage
- ESRI licensed
- Offered around two to three weeks after the event...



<https://lvermkv.maps.arcgis.com/apps/webappviewer/index.html?id=da78a306408441769ff803ec349789bc>

how information could be distributed

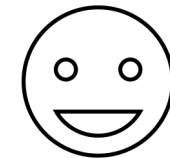
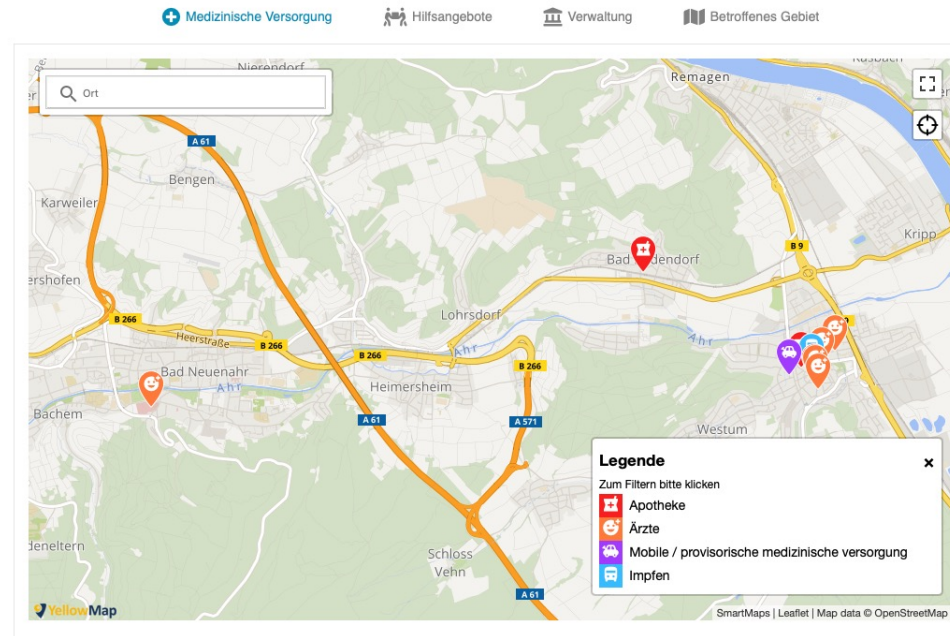
Goal: *citizens information portal*



Requirements:

- Allow input from different sources (apply changes immediately)
 - Allow input from non-technical experts
 - Allow offline usage (data download)
 - Must be optimized for mobile usage
 - Provide a data API
-

Extreme situations require “extreme” solutions



affected citizen

E.g. Google Docs
as data source



Authorized accounts should be able to update data immediately

s					Suche geographische Informationen per Adressa			
Koordinaten	Straße	Hausnr.	PLZ	Stadt	Suche-Straße	Suche-PLZ	Suche-PLZ	Suche-PLZ
50.5460372, 7.246989699999999	Barbarossastraße					43	53489	Sinzi
50.55116680617844, 7.2496891021728525							53489	Sinzi
50.549939733240365, 7.2245192527771005							53489	Sinzi
50.55865125951707, 7.27646827697754	Leinpfad							
50.5513211, 7.246698299999999	Grüner Weg					9		Sinzi
50.548782, 7.21749	Bäderstraße					60		Sinzi
50.54069695, 7.127501749051339	Dahlienweg							
50.543875478934325, 7.249335050582887	Koblenzer Straße					1	53489	Sinzi
50.54530383613794, 7.246835231781007	Mühlenbachstraße					10		
50.5564683, 7.2179086	Bahnhofstraße					9		
50.54726392177968, 7.25297212600708	Alfred-Ott-Straße					21		
50.54378343533955, 7.249447703361512	Koblenzer Straße					2		
50.54579812628676, 7.250552773475648	Barbarossastraße					36		
50.5443959, 7.2446228	Friedrich-Ebert-Str							
50.5485353772434, 7.233853340148927								

AHR HOCHWASSER Letzte Änderung vor wenig

Geo. Infos Suche (mit Google Maps)

Geo. Infos Suche (mit OSM)

Koordinaten in Karte feinjustieren

Öffne Koordinate in Google Maps

Suche Adresse mit Google Maps

Auf Fehler überprüfen

Auf ahr-hochwasser.ciss.de veröffentlichen

Webseite ahr-hochwasser.ciss.de öffnen

Hilfe



Add coordinates automatically

Adjust coordinates manually (when needed)

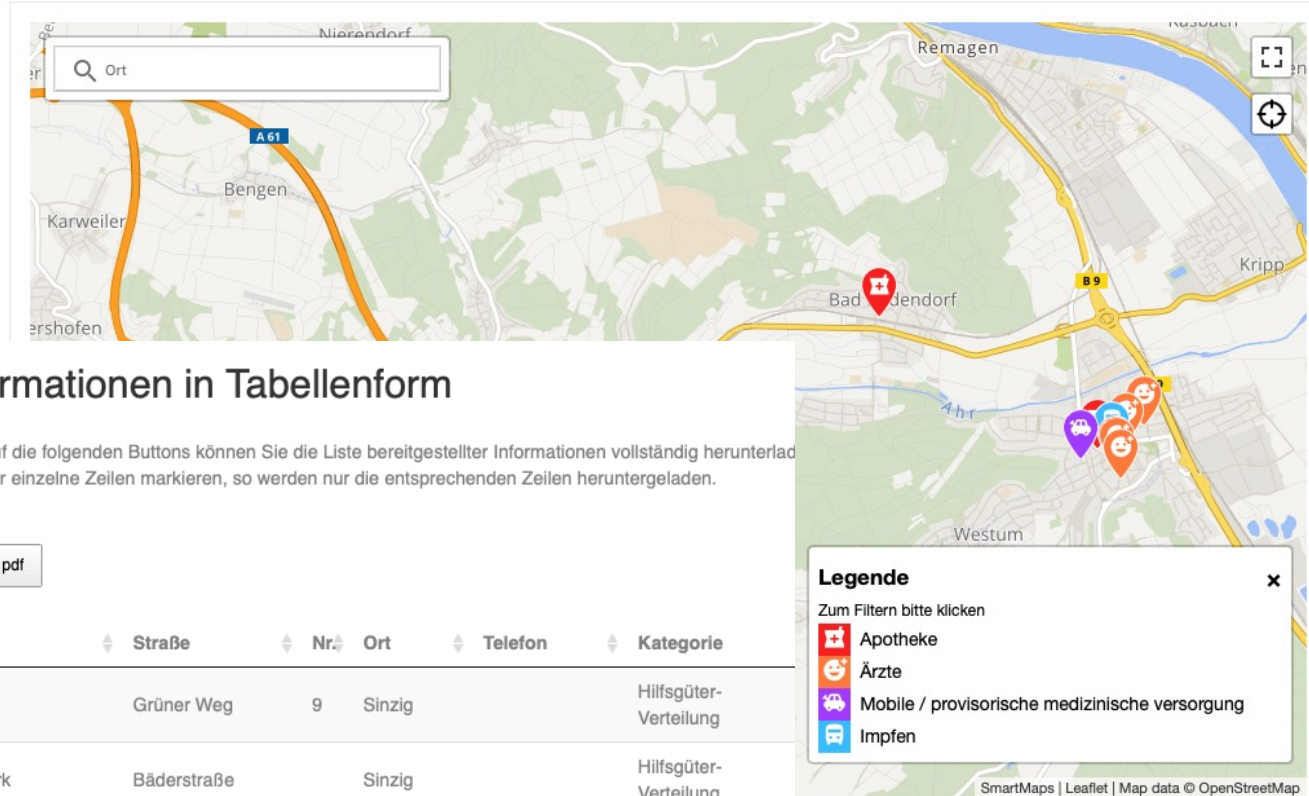
Bitte Marker feinjustieren



Automatic data publication

Data portal provided by CISS TDI and YellowMap (<https://ahr-hochwasser.ciss.de>)

Medizinische Versorgung
Hilfsangebote
Verwaltung
Betroffenes Gebiet



Legende

Zum Filtern bitte klicken

- Apotheke
- Ärzte
- Mobile / provisorische medizinische versorgung
- Impfen

Detailinformationen in Tabellenform

Durch einen Klick auf die folgenden Buttons können Sie die Liste bereitgestellter Informationen vollständig herunterladen. Suchlaste filtern oder einzelne Zeilen markieren, so werden nur die entsprechenden Zeilen heruntergeladen.

Name	Straße	Nr.	Ort	Telefon	Kategorie
Sportplatz	Grüner Weg	9	Sinzig		Hilfsgüter-Verteilung
Pavillon am Kurpark	Bäderstraße		Sinzig		Hilfsgüter-Verteilung
Rathaus	Markt	1	Sinzig		Infopoints
CoWorking Sinzig	Bachovenstraße	3	Sinzig		Infopoints
Container Jahnsporthalle	Dreifaltigkeitsweg	32	Sinzig	0151/54342513	Infopoints

- Update: immediately w/o knowledge
- Access: offline and mobile mode
- Data: 10 different categories
- Export: CSV, Excel, PDF, GeoJSON

```

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[7.250205,50.554324],[7.252221,50.553097],[7.256898,50.547017],[7.25338,50.54669],
[7.252908,50.547699],[7.24866,50.547481],[7.245914,50.547454],[7.245571,50.54729],
[7.243511,50.547208],[7.243039,50.546608],[7.241795,50.546908],
[7.237162,50.547154],[7.234845,50.547263],
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[7.203973,50.550529],[7.217718,50.554244],[7.222137,50.553699],
[7.222609,50.552826],[7.219734,50.547918],[7.217636,50.548372],
[7.215584,50.548344]]]],"type":"Polygon"},"properties":
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Gebiet","text":"Anschritt:<v>Betroffenes Gebiet53489 Sinzig"}}}]

```

where to go next

What went well

- *Prototype was ready 7 days after the flood*
- *Google Sheets enabled non-technical experts to provide data*
- *Google based authentication*
- *Adjusting coordinates, integrated in google sheets*
- *SmartMaps enabled simple data visualization*
- *License free solution*

What could be better

- *Portal was applied in Sinzig only -> need for a German/European wide approach (joined proposal?)*
 - *Import data automatically from already available linked data sources and export as linked data*
 - *Polygon information was difficult to add -> not everyone is an expert*
 - *Need for a Google account -> use open distributed tools*
-

Summary in three points

1

*Distributed data provision
allows input from different
sources*

2

*Google Sheets allow non-
technical experts to provide
data*

3

*No power grid, no internet →
data must be optimized for
offline usage*
