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21-25 June 2021 in Virtually in the Netherlands

SMART SURVEYORS FOR LAND AND WATER MANAGEMENT CHALLENGES IN A NEW REALITY



eWORKING WEEK 2021
20-25 JUNE

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Paper ID-Number 10864

Smart Mapping - the new VectorTiles Map of Germany

21. June 2021, 19:30–21:00 CEST

ORGANISED BY



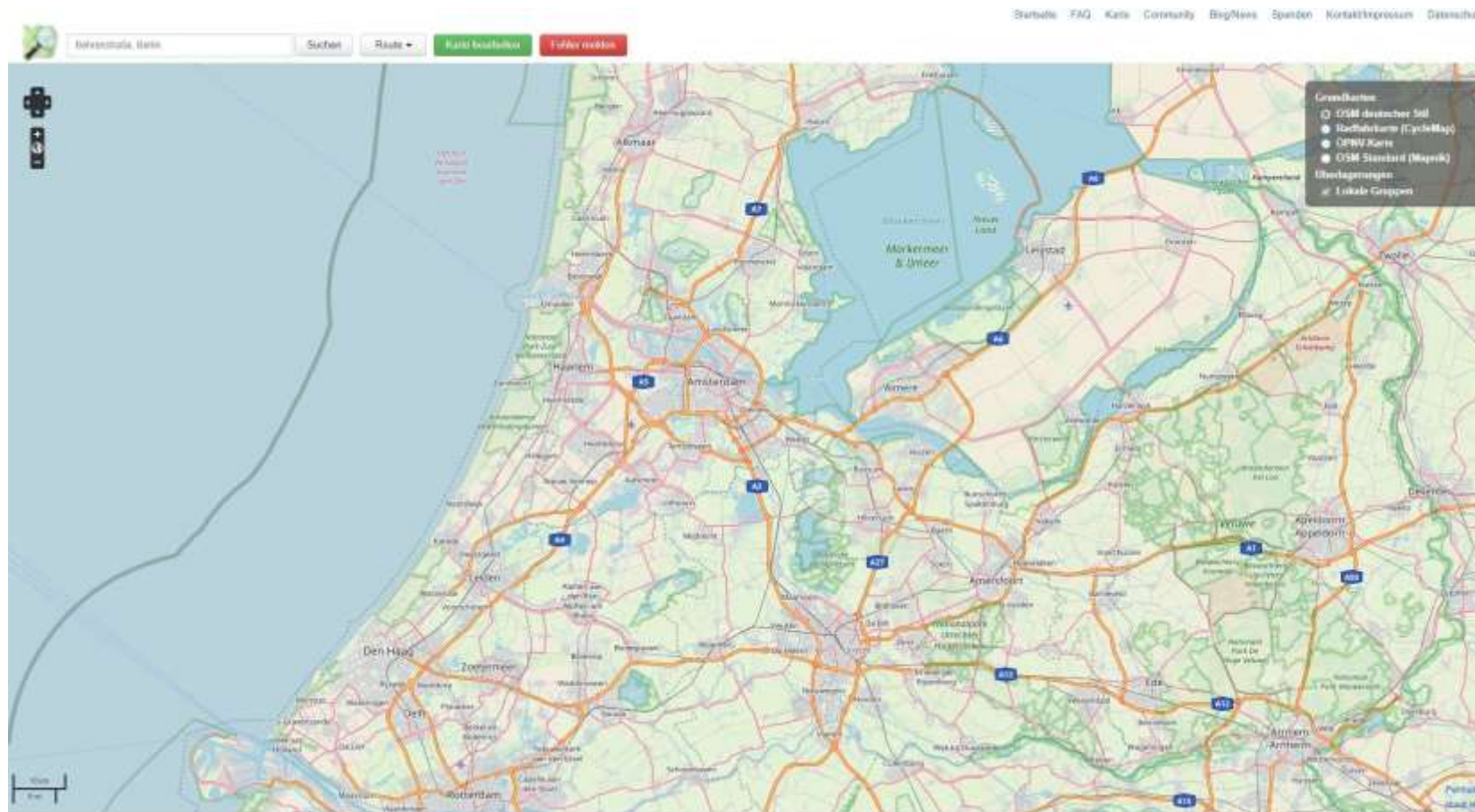
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The situation today

People (even public administrations) mainly use OSM data, rather than official data





Key Question

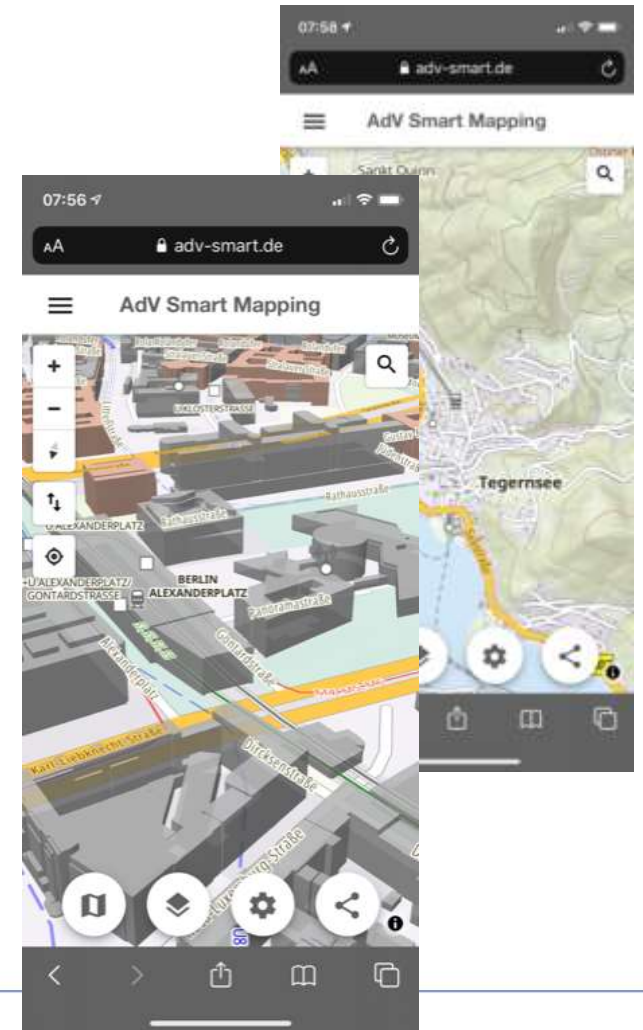
How should the **official map** of the future look like?

To answer this questions we launched a project two years ago, called "Smart Mapping"



Design Decisions of Smart Mapping

- Application of an **easy to use data model** ("OSM like")
- Implementation of modern technology (**VectorTiles, open API**)
- Mobile first, performant web application
- Open Source Software (**OSS**) first
- **Central data processing** and nation-wide data coverage
- High actuality of the web map (**1 day**)
- Guidance for use (tutorials etc.)
- Developed by own experts, located all over Germany
- **Agile software development**
- Use of **cloud technologies** (Software as a Service)
- Production of raster web maps (**WMTS**) as well as **printed maps**





What you get: Smart Mapping Standard Maps in different Styles



Hill shades

3D Buildings

Night

Orthoimagery



Smart Mapping Map Editor for individual Styling and Publishing

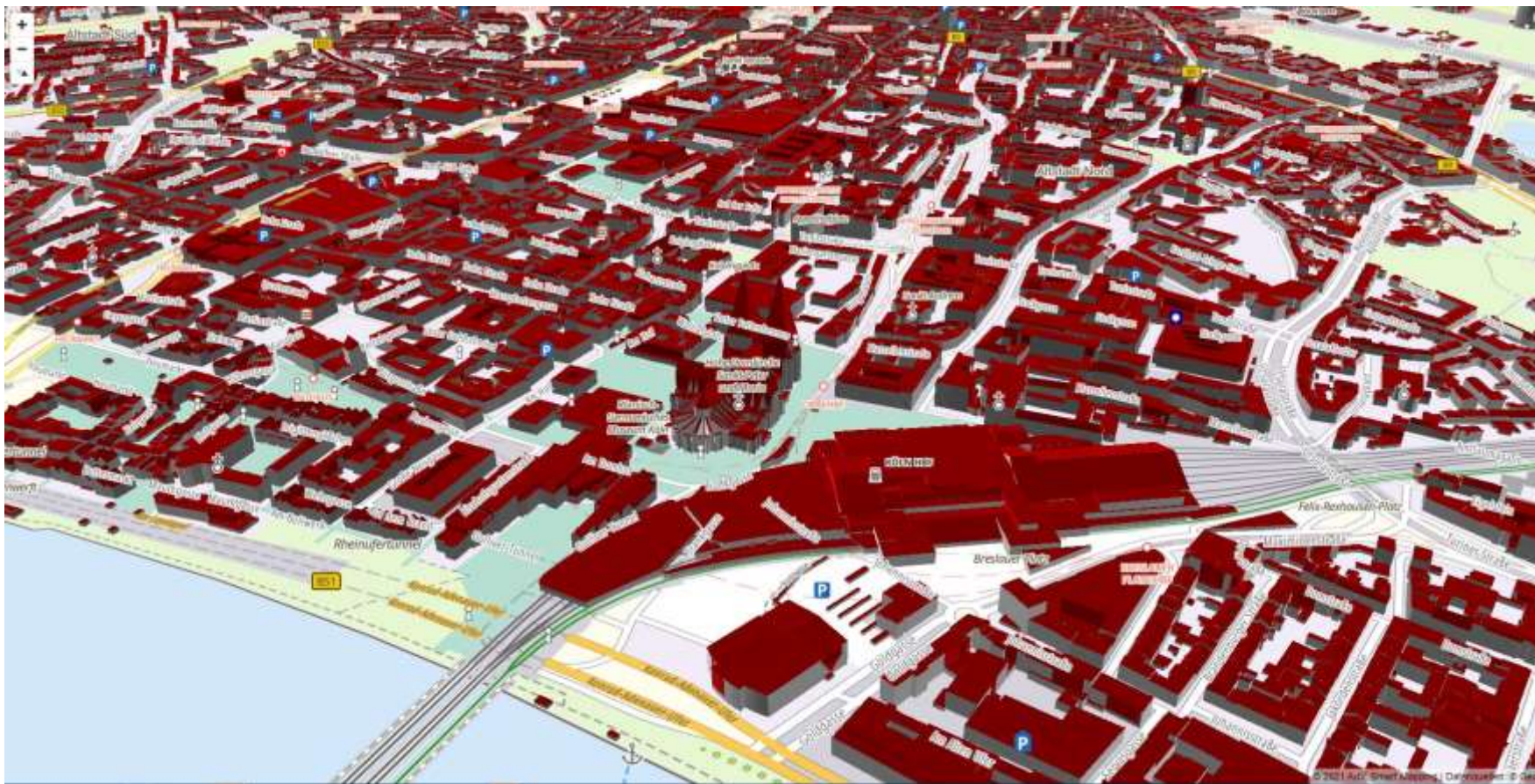
AdV Smart Mapping

300 m

© 2020 Adv. Smart Mapping | Datenquellen: © GeoBasis-DE



New:
3D-Buildings
(LoD2)

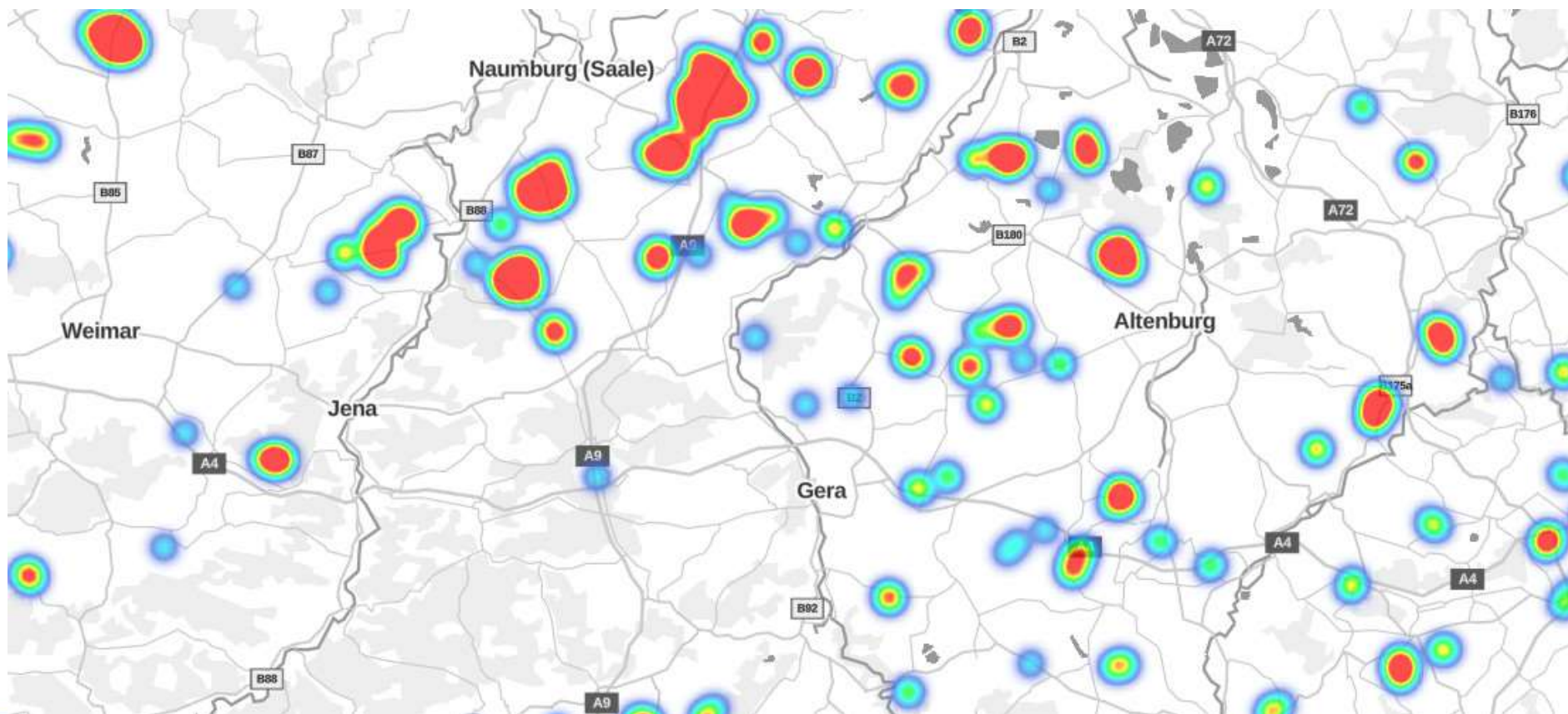




Smart Mapping: new ways for data integration

The new **vector-based web map** is MUCH more than a map.

It allows a lot of use cases by combination with external data





Combination with historical sites in a 3D visualization





Combination with municipal data (tree cadastre of Hamburg)





Use of VectorTiles API: Web clients und GIS (examples)





Conclusion

- Traditional GIS-technology often limits the usability of official spatial data
- There is **modern web technology** available to overcome the identified shortcomings
- **Agile software development** allows a fast adoption of new technology also in public administrations
- With this approach official data will play again an important role in decision making processes also in future!



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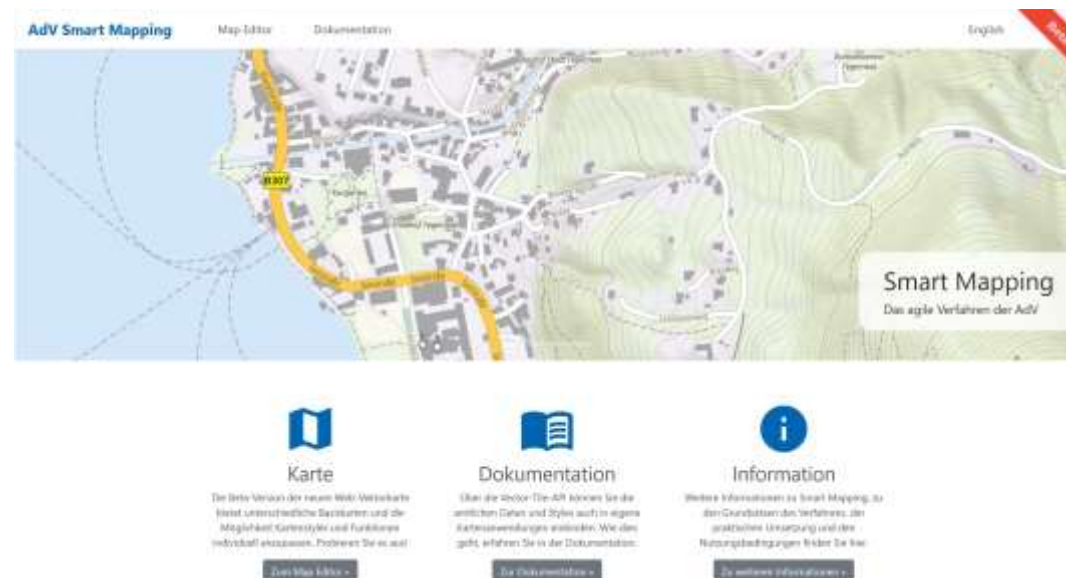
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The screenshot shows the 'Adv Smart Mapping' website. At the top, there are navigation links for 'Map-Editor', 'Dokumentation', and 'English'. The main content area features a topographic map with a yellow highlighted path. Below the map, there are three main sections: 'Karte' (Map), 'Dokumentation' (Documentation), and 'Information'. Each section has a brief description and a 'Zur Seite...' button.

- Karte:** Die Beta-Version der neuen Web-Messkarte bietet unterschiedliche Basiskarten und die Möglichkeit, Kartestyle und Funktionen individuell einzupassen. Probieren Sie es aus!
- Dokumentation:** Über die Web-UI können Sie die amtlichen Daten und Styles auf in eigene Karteneinstellungen übertragen. Wie dies geht, erfahren Sie in der Dokumentation.
- Information:** Weitere Informationen zu Smart Mapping, zu dem Grunddaten-Verfahren, der praktischen Umsetzung und den Nutzungsbedingungen finden Sie hier.