



UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386

CAP4Access and VGI

Adam Rousell



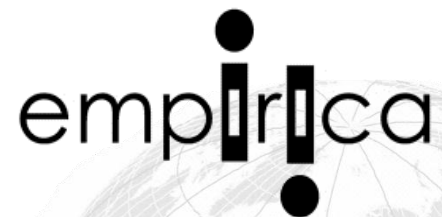
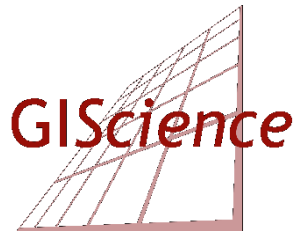
CAP4Access

- EU FP7 funded project
- “Collective Awareness Platforms for Improving Accessibility in European Cities and Regions”
- Addresses the problem of accessibility through engagement with community and the development of tools



CAP4Access

- Four pilot cities: Heidelberg, Vienna, Elche, London
- Number of project partners



SOZIALHELDEN



Ayuntamiento de Elche



Use of VGI in CAP4Access

- CAP4Access develops tools and methods for:
 - Contributing VGI
 - Assessing VGI
 - Using VGI

Contributing VGI

- Collective tagging
 - Integration of PSI data
 - Participatory sensing
 - Public engagement
-
- Wheelmap.org



Wheelmap.org

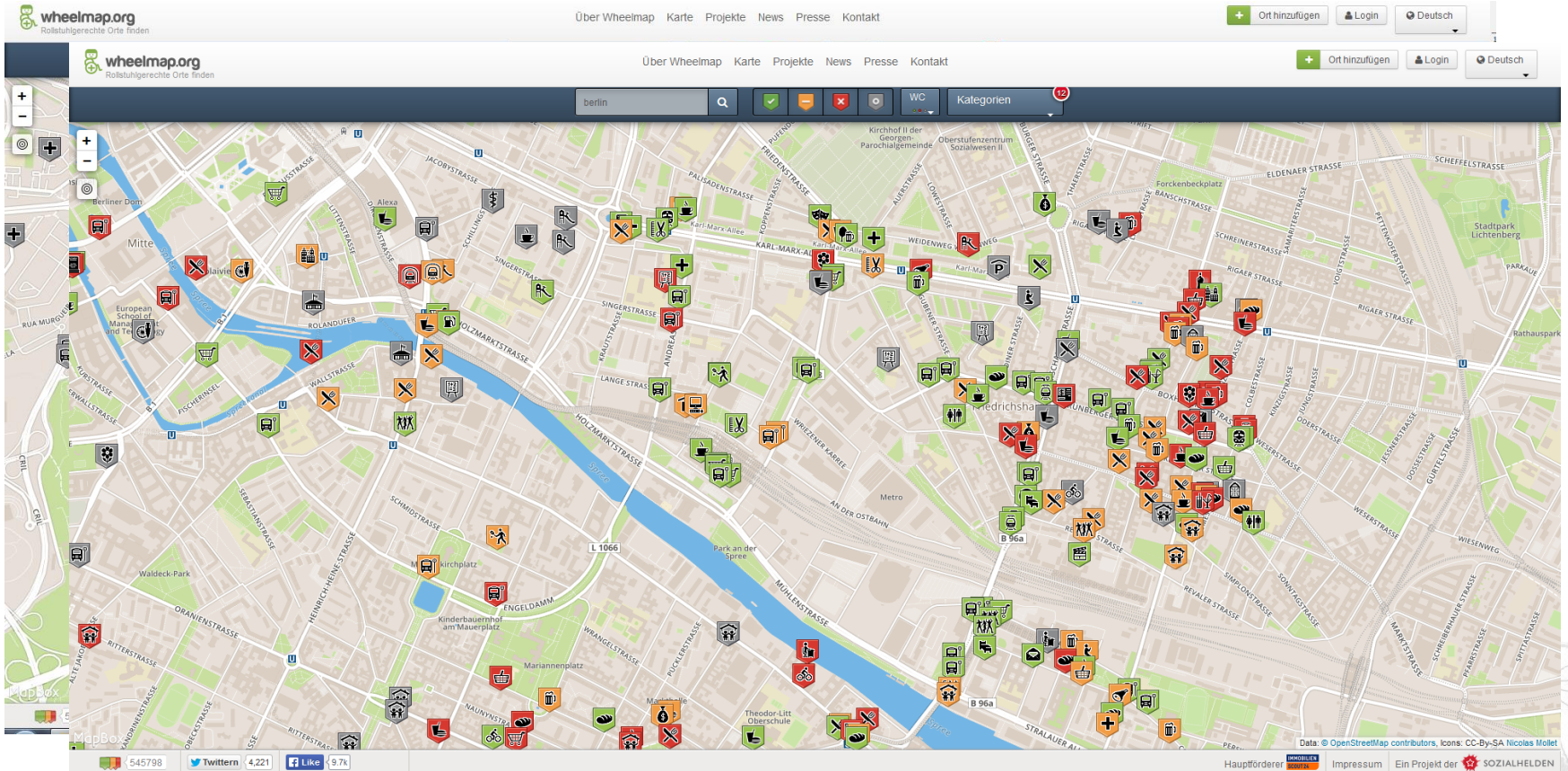
- Highly successful VGI tool for enriching VGI with accessibility information
- Allows tagging of POIs with an accessibility tag: **accessible**, **partially accessible**, **not accessible** (& unknown)



wheelmap.org

Find wheelchair accessible places.

Wheelmap.org



Collective Tagging

- Allowing users to contribute information important for accessibility of outdoor spaces:
 - Sidewalk incline
 - Presence of drop-curbs
 - Surface materials
 - Location (and size/number) of steps

Collective Tagging

- Development of an Android app that allows:
 - Template based editing
 - Recommendations of tags

Integration of PSI

- Integrating (open public) data into OSM
 - Drop curbs (Vienna)
 - Sidewalk presence (Heidelberg)



Assessing VGI

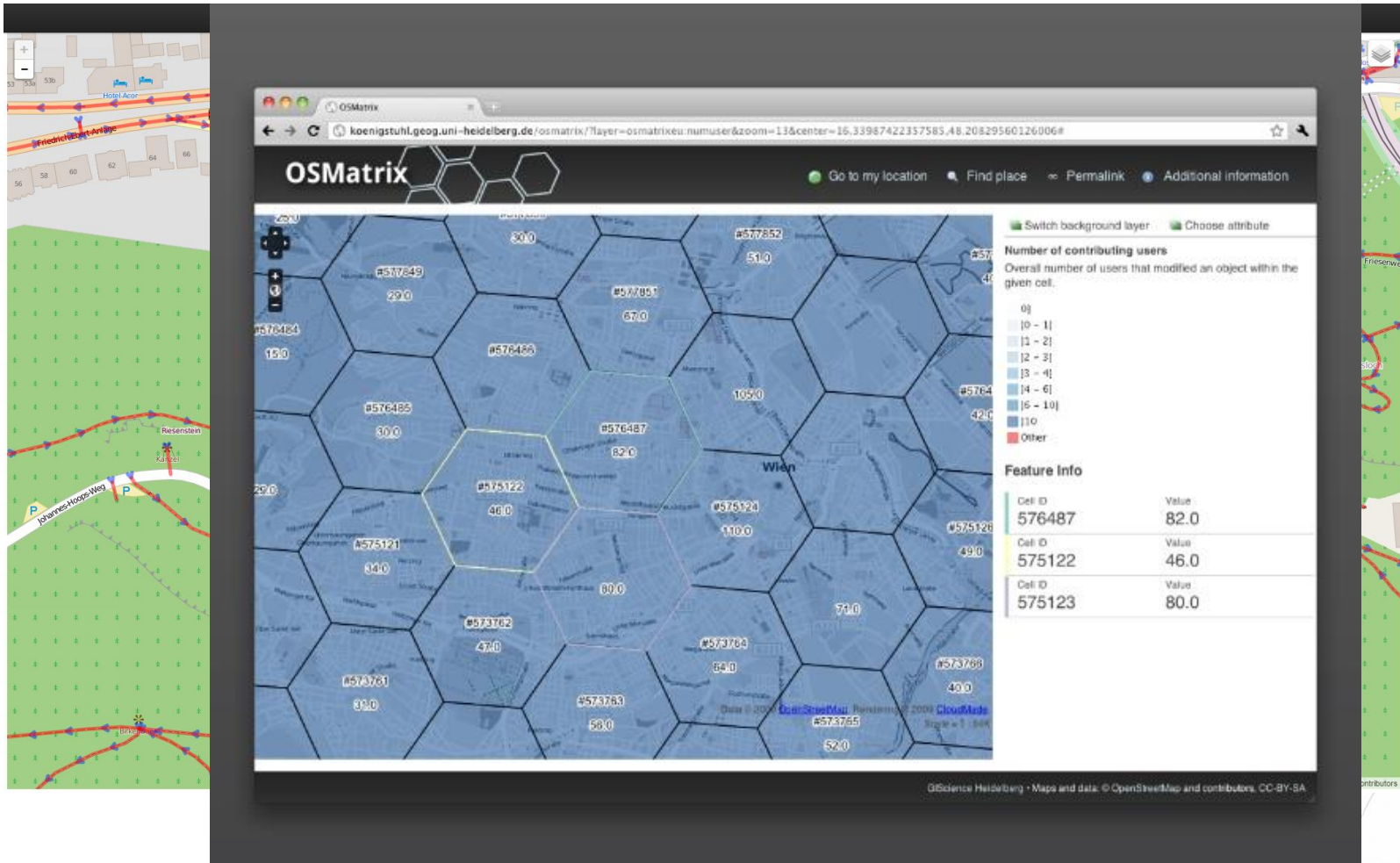
- Visualisation
- Data quality assessment



Data quality assessment

- Addressing the completeness of data needed for accessibility tools
 - Presence of attributes
 - Presence of features
- Tools used:
 - OSMatrix
 - Quality Assurance Editor

Quality Tools Used



Using VGI

- Routing & navigation
- (Wheelmap)



Routing & Navigation

- **Routing** – routes using wheelchair parameters as weightings:
 - Surface, slope, steps etc.
- **Navigation** – providing landmark based navigational instructions (using only OSM data and tags)

Wheelchair Routing

OpenRouteService.org

ORS successfully updated to new Version!

Site Preferences Info & Contact GIScience

Plan Route OpenRouteService.org

Route options: **Plan Route** Search

Route options:

Reset whole route

Adenauerplatz
Heidelberg, Baden-Württemberg, DE

Johannes-Hoops-Weg
Altstadt, Heidelberg, Baden-Württemberg, DE

Add waypoint

add waypoint

Summary:

Total time: 6 minute(s) 27 second(s)
Total distance: 3.4 km

Route instructions:

Route extras:

Summary:

Total time: 11 min
Total distance: 99

Route instructions:

Route extras:

New to OpenRouteService?
Activate extended options in the site preference menu.

Site Preferences Info & Contact GIScience

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openls.geog.uni-heidelberg.de/wheelchair-2.1/#sitePrefsModal

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8.70220, 49.40245

Summary

- CAP4Access is contributing, enriching and using VGI data (OSM)
 - Various tools and methods under development
 - Aiming at enriching OSM with relevant information to allow better understanding of accessibility of the environment

Questions, Comments, Suggestions...

Adam Rousell

Berliner Straße 48

Heidelberg 69120

adam.rousell@geog.uni-heidelberg.de

+49(0)6221 54 5563



