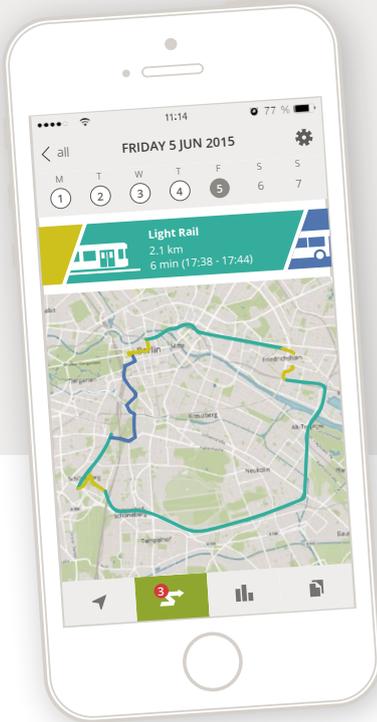


## Approach



### The research project RadSpurenLeser with the mobility tracking tool modalyzer

“RadSpurenLeser” focused on the question how inter- and multimodal linkages between cycling and public transportation are being shaped in the city of Berlin. In order to answer this question, the smartphone app modalyzer which works as a tracking app has been used to collect individual mobility data and detect linkages between cycling and public transport modes. modalyzer tracks and analyzes individual mobility behavior and automatically identifies users’ modes of transport based on GPS and WIFI information as well as OSM data on public transportation. In addition, this mobility data has been linked to

a quantitative online survey. Participants were recruited upon their indication to at least occasionally cycle within Berlin and its surroundings. In this way, it was possible to link very precise mobility and behavior data on cycling and public transport in Berlin. In addition, the online survey conducted in parallel to the GPS-tracking delivered key insights into motives and attitudes on intermodal use of cycling. Increasing the diversity and quality of the offered options for bicycle parking, as well as addressing bicycle lorry within public transportation has proved to be of major interest to users.

#### key metrics RadSpurenLeser

- » 151 participants
- » Jan/Feb & Apr/May 2016 tracking periods
- » 270,000 kilometers recorded
- » 37,000 kilometers included in final sample
- » 3,075 trips

With funding of National Cycling Plan (NRVP) 2020 by Federal Ministry of Transport and Digital Infrastructure (BMVI)

#### key metrics modalyzer

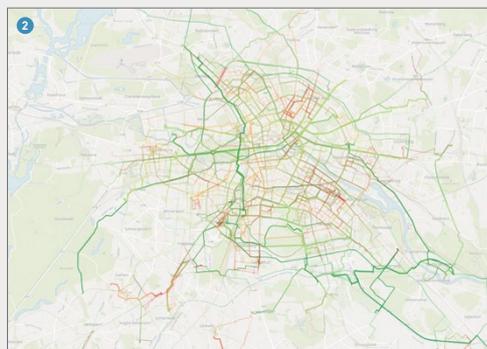
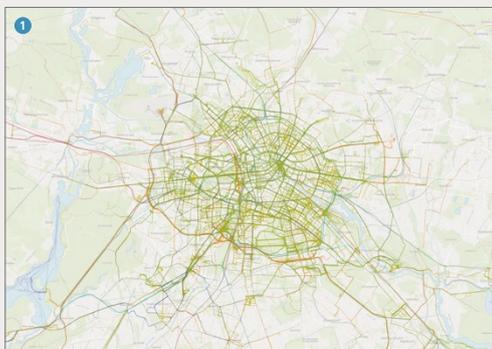
- » 9 modes of transportation automatically identified



- » Android & iOS available modalyzer apps



## Exemplary Results



#### 1 Multi- & intermodality

The study confirmed that multimodality plays a major role for 67 % of the users. Intermodality has been identified for 8 % of the trips, whilst 12 % of the cycling trips were combined with public transport either by bicycle parking, bicycle lorry or bikesharing at public transport stops.

#### 2 Cycling network quality

With the help of the method, average cycling speeds could be identified. Among other insights, this could provide city planners with a first impression of cycling network quality.

#### 3 Catchment area for points of interest

This example shows the travel distances by bike to/from regional station hub Berlin-Südkreuz. Manifold implications for city planning arise from this knowledge.

#### 4 General

The method of smartphone-generated mobility analysis proved to be very efficient and insightful. For the first time, selected mobility behavior schemes in Berlin such as bicycle related inter- and multimodality could be quantified using a big data set.



Download the entire German report.



Download the app.