How can we, as a city, use open data for the benefit of our citizens for needs and capacity planning (residential space, traffic, kindergarten places, city development)?

INFRASTRUCTURE FINDER

TARGET GROUP AND CHALLENGE

Making infrastructure visible during location selection

The location is a decisive factor on the real estate and property market, but is difficult to assess, especially in the case of new construction and commercial areas. In addition, there are many factors that determine the attractiveness of a location for businesses and private property developers that have been difficult to research so far. These are the needs of stakeholders:

CITIZEN

Is not familiar with the location, has, in addition to price and size, many individual search criteria such as infrastructure, traffic, local area, environmental factors, education, cultural offerings.

CITY MARKETING

Wants to offer a wide range of urban infrastructure, looks for ways to reach potential new citizens and wants to further promote the settlement of businesses.

COMMERCIAL / REAL ESTATE AGENT

Is searching for commercial properties suitable for specific purposes with good accessibility, an interesting catchment area and at attractive prices.

EXAMPLE

Search criteria for a family with children

Good location
Quiet side street
Right-angled plot (elongated, pie, angled, difficult to build on)
Buildable land (Named m² / Quotient optimal living space with expansion reserve)
Specification of probably/maximum floor area, floor space (comparison with average, possibility to add special use, detached house, 4 people, etc.)
Recommended use: Residential building
Energy-efficient exposition (classic SW/SE location)

Good transport connection
Highway max. 10 min. (heat map)
Train max. 15 min.
Public transport 3 min. on foot
Airport max. 45 min.

Infrastructure
Fully enclosed piece of land (network, water, green energy, undeveloped)
Immediately ready for occupancy (ready for occupancy from [date field + 1, 3, 6 months]
Energy-optimal (e-charging, decentralized energy generation & storage, solar-ready, special location factors/ funding area for passive house or similar)
“Magenta-ready” (100 broadband, SmartHouse, entertainment, security)

Environmental factors
Favorable microclimate (current weather, decentralized weather station)
No risks (heavy rain, groundwater, rockfall, flooding area)
Soil quality (garden-friendly location, no critical emissions/ contaminated sites, unexploded bombs)
No water-bearing layers
Quiet residential area (decibel heat map street, train, aircraft noise, neighborhood, animals)
No air pollutants above threshold values (NO, CO2, ...)
No allergen exposure (current heat map / over the year, pollen count, sensor data)
No significant crime within a radius of 2 km (burglaries, robbery and procurement crime)

Leisure value
Local recreation
Games and sports facilities, playgrounds

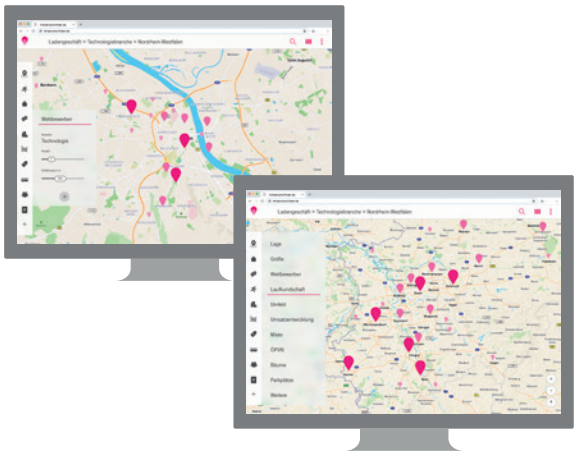
Education
Kindergarten, elementary school, secondary school
Distance to university

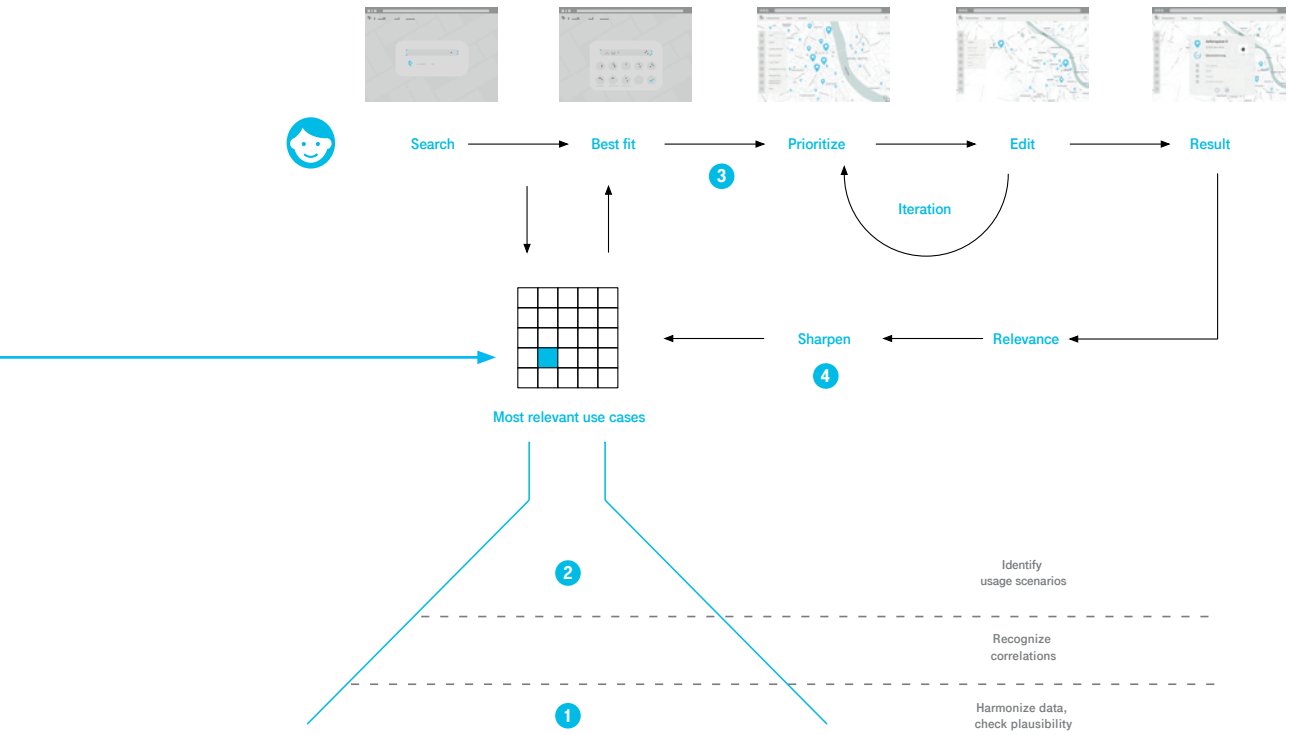
SOLUTION APPROACH

Map-based collection and intelligent linking of existing data

Existing data on available building sites, property costs, development possibilities, traffic, infrastructure, cadastral data and location advantages are processed on a map basis. Data from other sources such as broadband supply, etc. are also added. An intelligent link enables case-specific filters and individual adaptations.

A comfortable interface offers citizens and business people the opportunity to get better informed and helps to reduce the administrative effort. As such, in the medium term, this solution helps to save money to promote innovation and growth in the city.





1. Collect & provide The city's data are merged with others, made comparable and checked for plausibility.

2. Connect The intelligent combination of different data sets holds the actual potential behind Open Data – for this purpose, intelligent measuring facilities are created which carry out the data analysis and regulate it independently.

3. Prepare The data relevant for citizens and businesses are visualized in a meaningful and simple way and provided with the possibility to apply user and case-specific filters and parameters.

4. Feed back Proactively, users receive information on factors that are decisive in comparable cases. Their relevance is registered by the system and flows into the optimization of filters and parameter settings.

INFRASTRUCTURE FINDER
FINDINGS AND NEXT STEPS

FINDINGS FROM CO-CREATION

While some cities already operate portals for open data which they are responsible for themselves or in a regional network, others are still at the very beginning. Other still are more hesitant to approach the topic.

The participants were most interested in how cities from the municipal association or the same federal state proceeded in planning in comparable situations. Legal questions also arise: What data can I disclose? How can the regulations of the DSGVO be put into practice in everyday life?

OUTLOOK AND NEXT STEPS

During their work, some city representatives expressed the wish for a common platform for data preparation and exchange, for example within a metropolitan region. We see great potential here.

In cooperation with the “Metropolitan Cities” initiative, in which 14 cities in the Rhine-Ruhr area are jointly tackling the topic of digitalization, and with other interested municipalities, a pilot project to use city data for sustainable mobility will be launched under the leadership of Deutsche Telekom by summer 2019.

»We want to exchange ideas with other communities in order to become inspired and better at handling open data.«

FRIEDRICHSHAFEN

»By opening up urban data, we expect third parties to ask questions that have not yet been asked in the administration.«

DORTMUND

»Open Data is business development! It makes locations more attractive.«

HAMBURG