



## Discovering what affects movement around the city of Heidelberg

Uncovering insights from city data about mobility, weather and events to support better city planning

**Mobility Insights Heidelberg** achieved this using

• SAS® Viya® Visual Data Mining and Machine Learning • Python • JavaScript • SAS Visual Analytics • IOT • Forecasting • Optimization • Text Analytics and Natural Language Processing • Timeseries Management • Geocoding with the OSM Api and Google Maps APIs

**SAS Hackathon 2023** • People's Choice Award Winner • Public Sector Track

### Challenge

Heidelberg is a university town in Germany with a population of around 160,000 people, one quarter of which is students.

- The city also receives more than 100 summer visitors per permanent resident each year
- The city is bordered by hills and a river, and has a historical old town, all of which can lead to traffic bottlenecks at peak times.
- The city needs to plan carefully to ensure that visitors enjoy their visit and remain safe.

### Innovation

This solution creates a model to predict how weather patterns will affect the flow of traffic, bikes and pedestrians around the city.

**Mobility Insight Heidelberg:**

- Brought together city data on weather, events and movement around the city.
- Built a model to predict flows at different times, such as during the Christmas Market.
- Enabled the city to optimize traffic management and security during events.

### Impact

This solution has provided useful insights for the city of Heidelberg that will help to inform planning in the future.

- The model can be used to help city planners to make the city safer, including preventing accidents and planning better for events.
- There is potential to add other data such as from GPS systems, or the city's traffic light management system, to provide further insights.
- The approach could be used in other similar cities around the world.

“A useful tool that will help the lives of people in Heidelberg.”

Benjamin Gartner • Team Leader • Mobility Insights Heidelberg