



Data collection for City and Subnational Statistics (DaCiMob)

NPSO Innovatiedag

Yvonne Gootzen, Marko Roos

08-12-2021

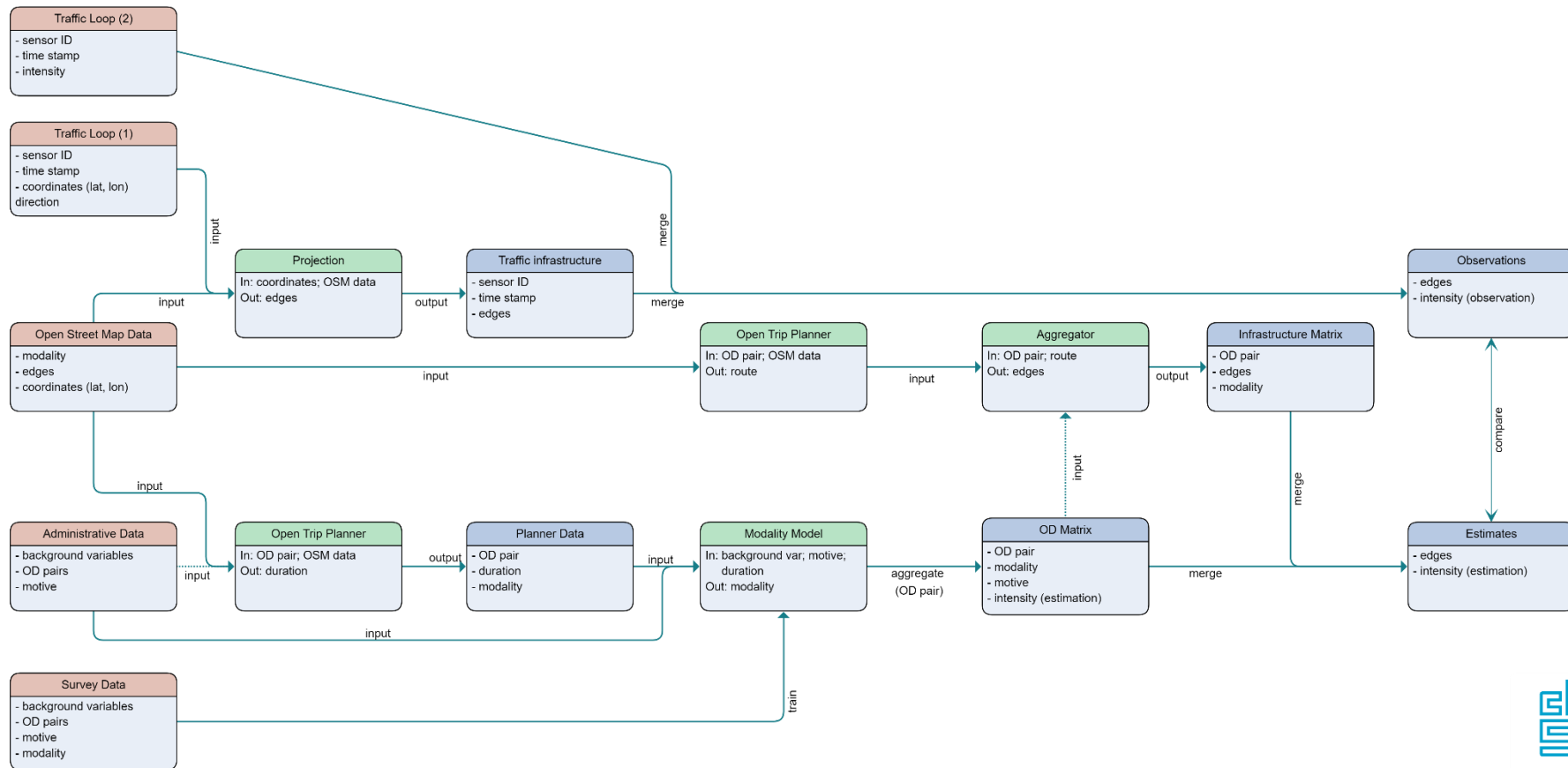
Data collection for City and Subnational Statistics (DaCiMob)

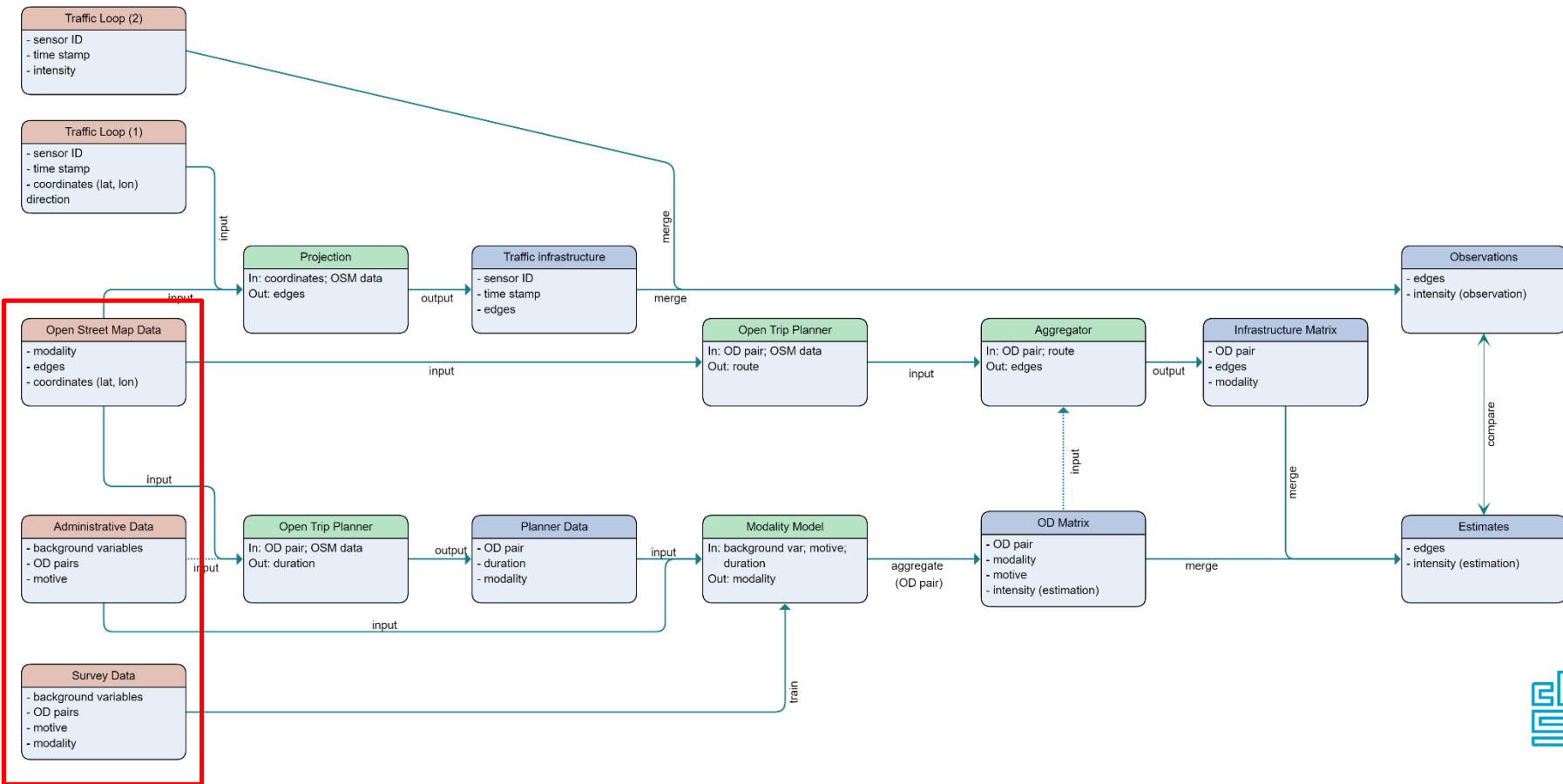
Develop methods, algorithms and infrastructure for combining administrative and big data sources on mobility patterns, maximizing the information value of those data sources.

Provide insight into local and cross border mobility patterns:

1. origin-destination matrices segmented on travel motive, travel mode and travel time
2. validated projections of o-d matrices on infrastructure.



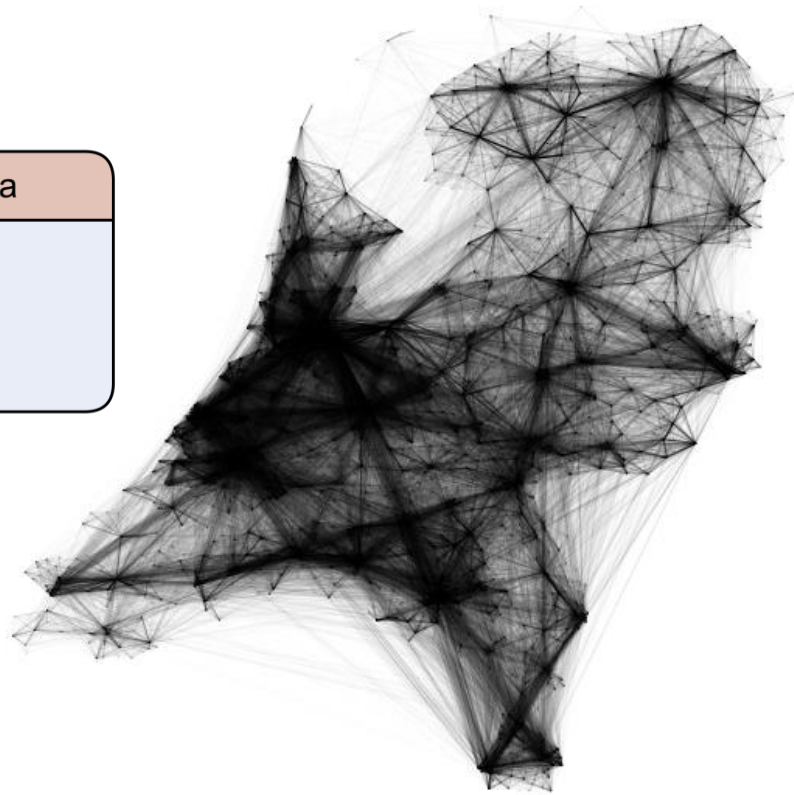




Administrative data: origin-destination matrix

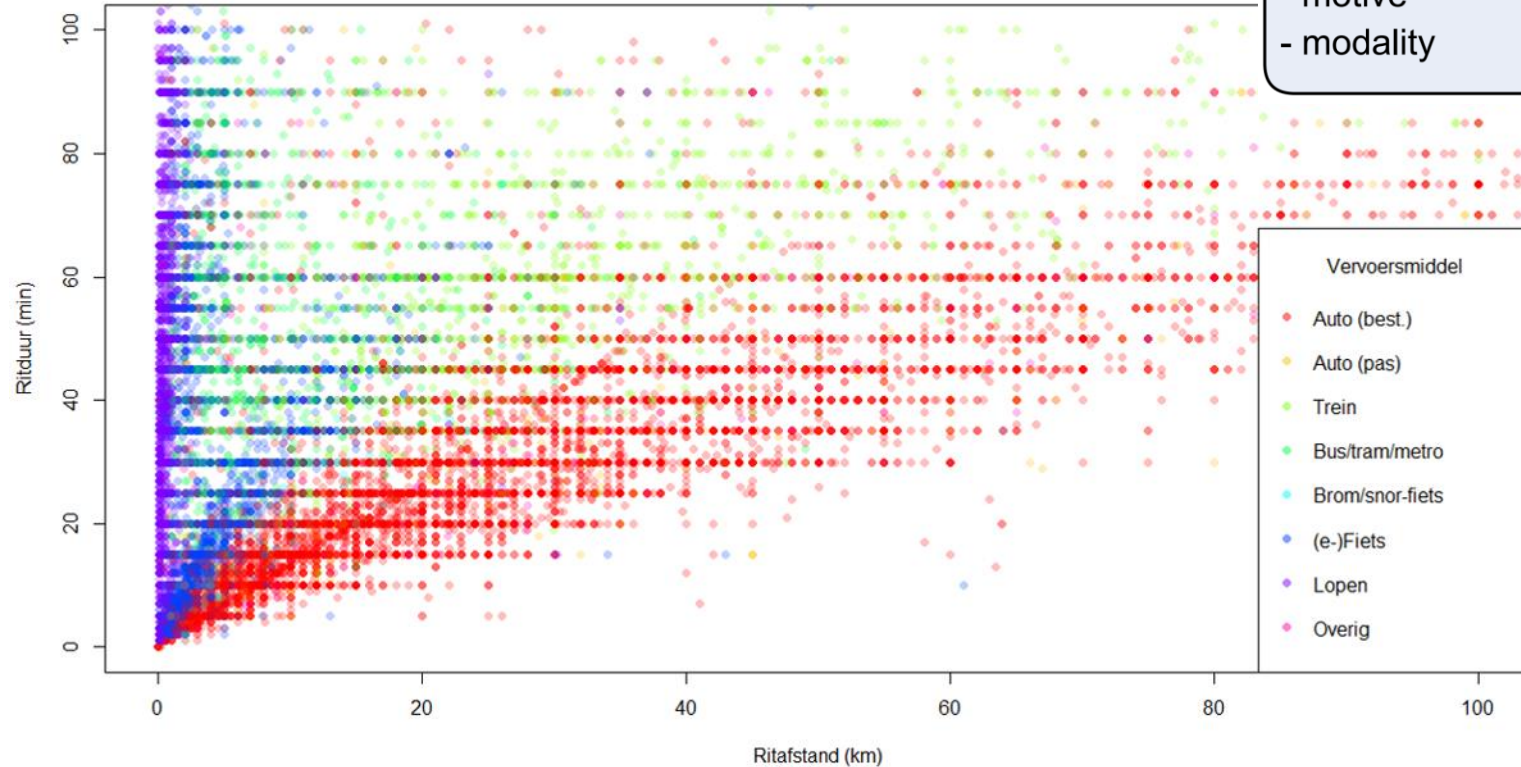
Administrative Data

- background variables
- OD pairs
- motive



Survey data: modality

Duur en afstand per vervoersmiddelkeuze

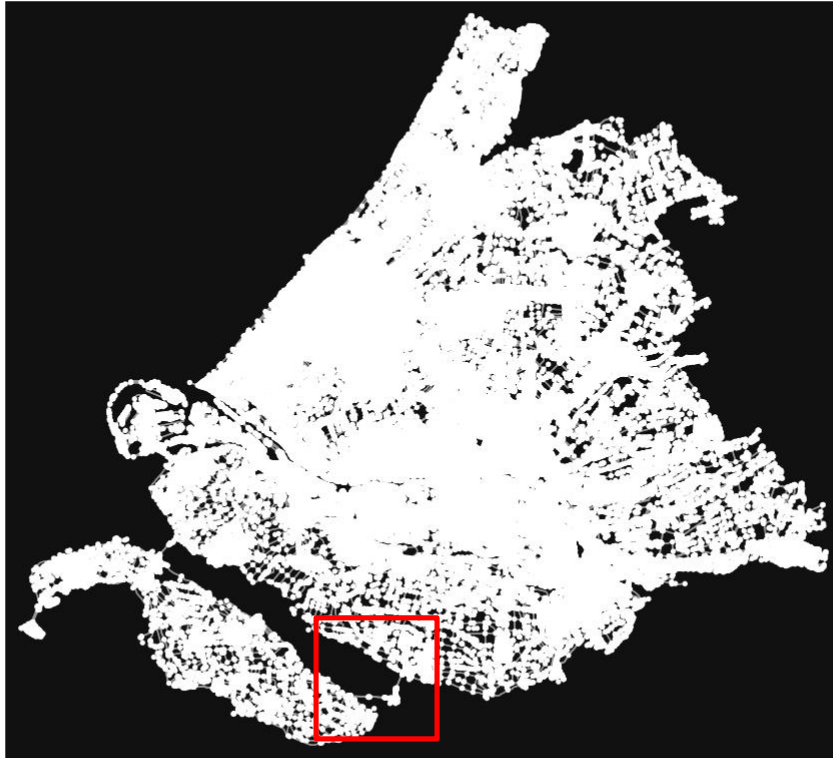


Survey Data

- background variables
- OD pairs
- motive
- modality



Infrastructure

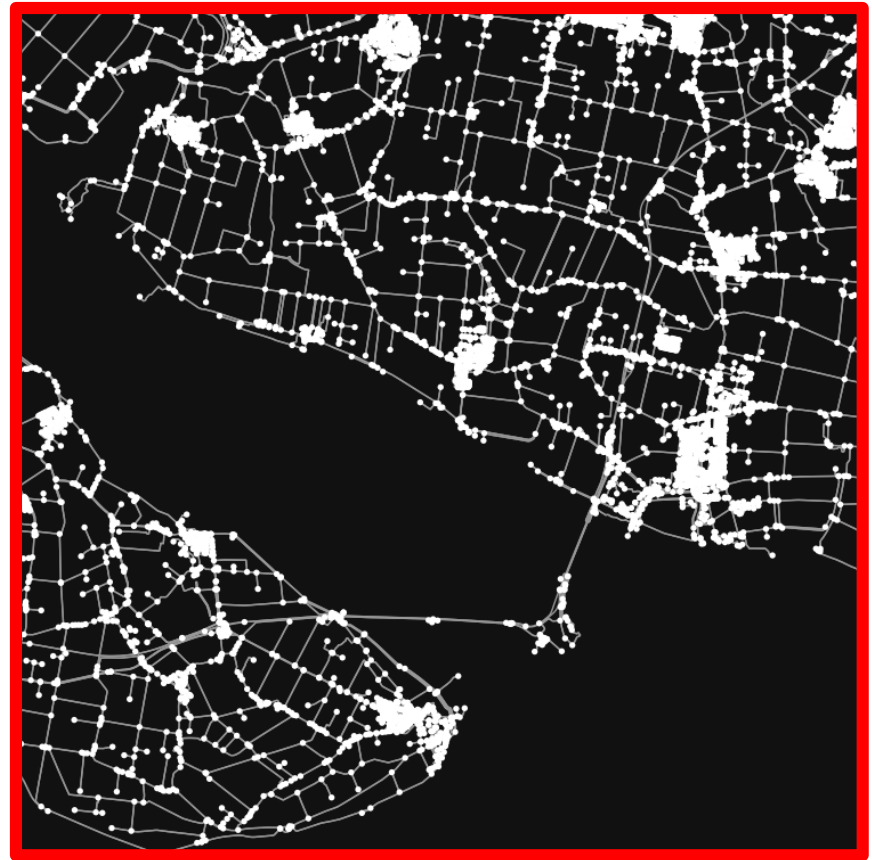
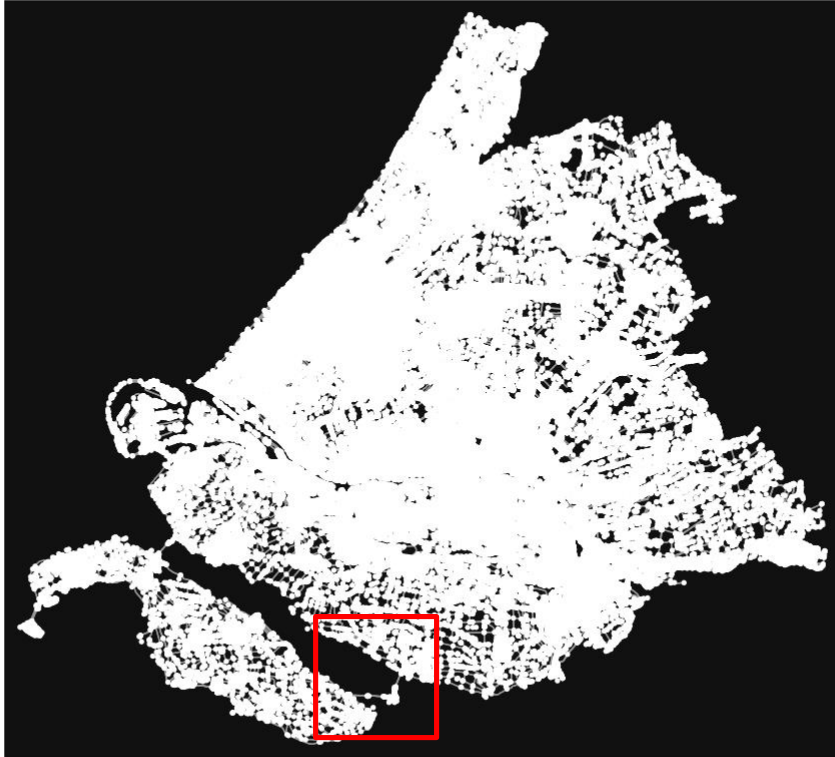


Open Street Map Data

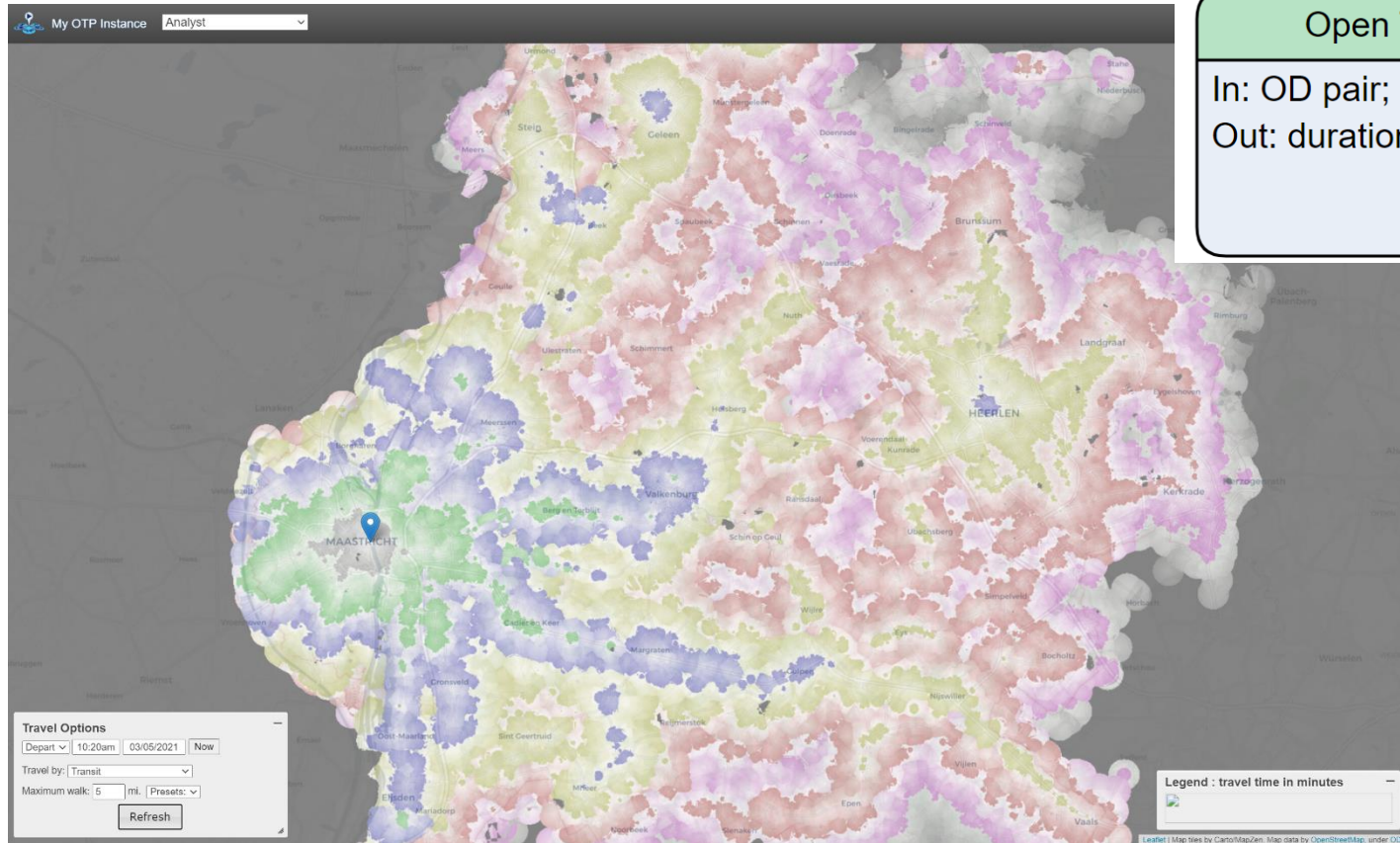
- modality
- edges
- coordinates (lat, lon)



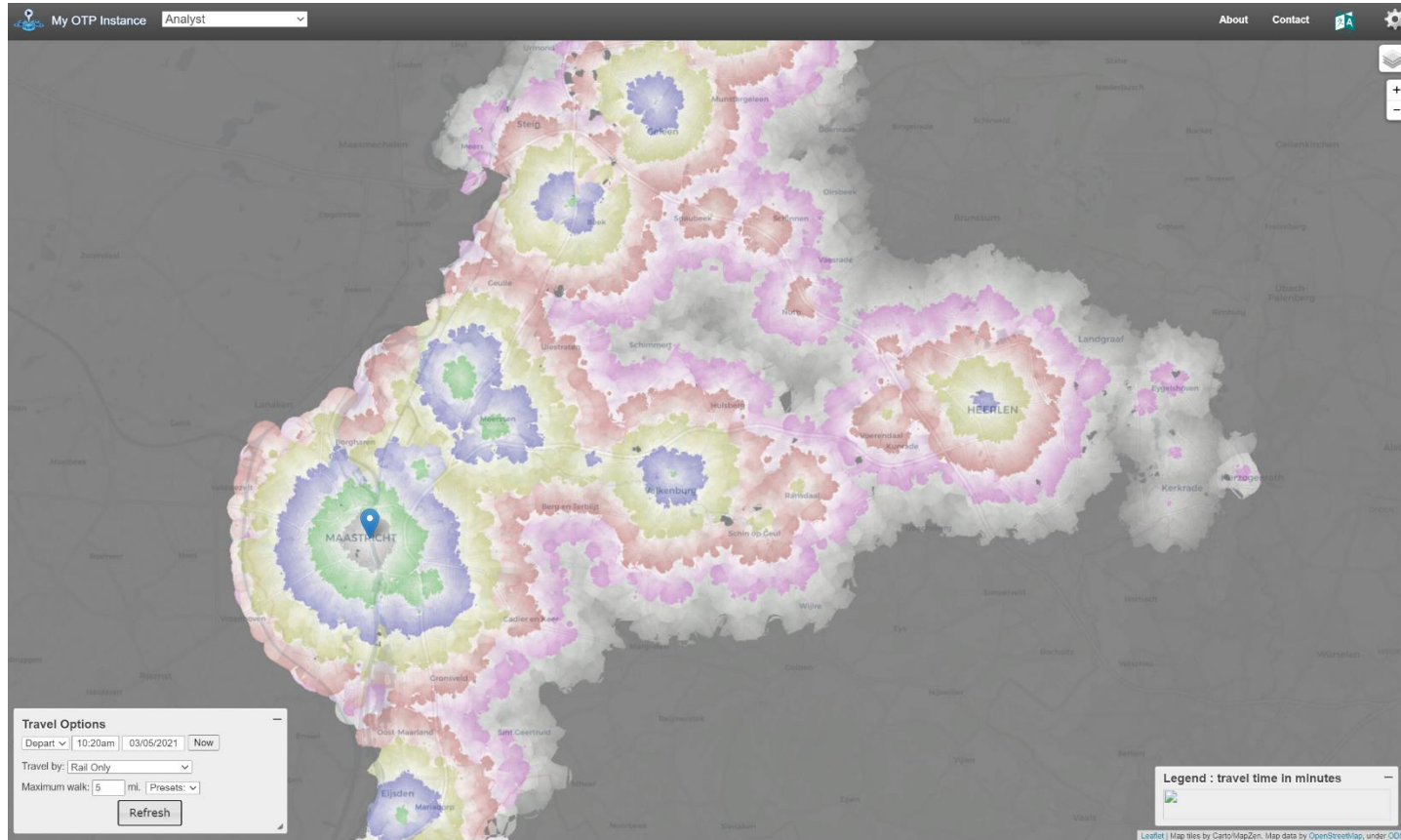
Infrastructure

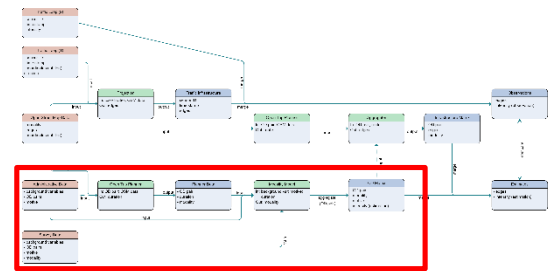
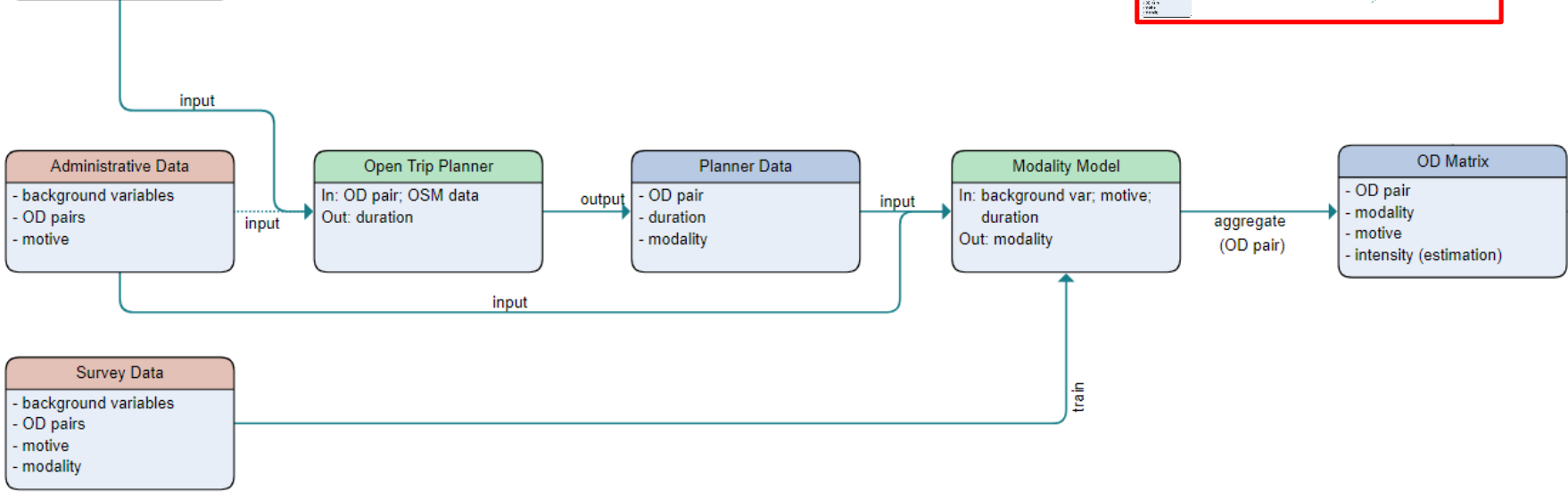
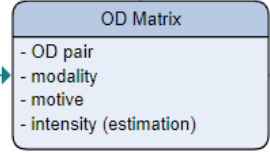
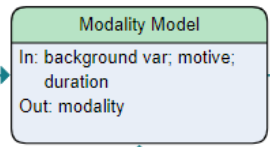
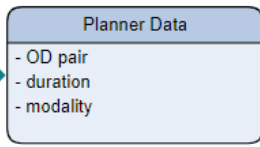
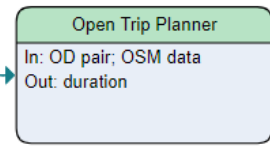
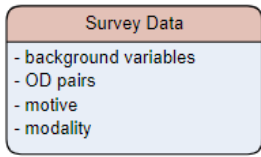
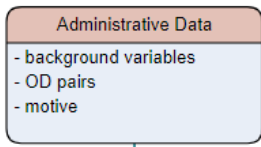
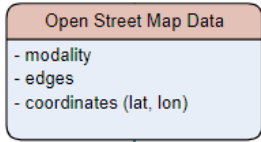


Travel duration from Maastricht (transit)



Travel duration from Maastricht (rail only)





Route planner: Heerlen-Maastricht (transit)

The screenshot displays the Open Trip Planner web application. The top navigation bar includes "My OTP Instance" and a dropdown menu for "Multimodal Trip Planner". The main interface is divided into three sections:

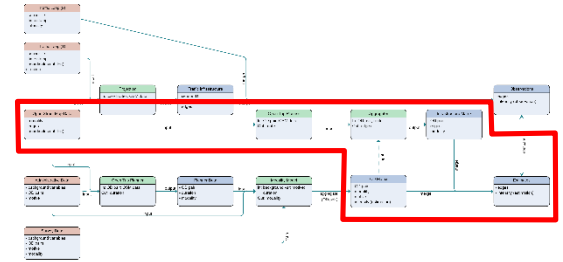
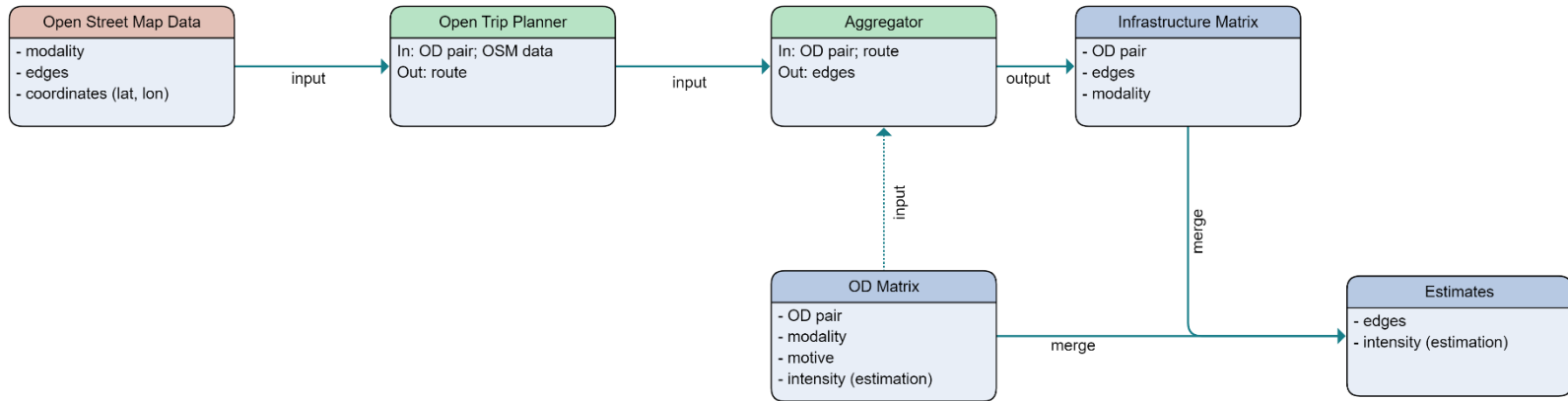
- 3 Itineraries Returned:** A list of search results. The first itinerary is selected, showing a start time of 10:13am on 03/05/2021. The route begins with a "WALK 0.18 miles to Heerlen" segment, followed by a "TRAIN: Arriva, (Snelrein) RE18 Aachen Hbf <-> Maastricht to Maastricht" segment. The second itinerary shows a boarding time of 10:18am at Maastricht. The third itinerary shows a boarding time of 10:47am at Maastricht. Navigation buttons "First", "Previous", "Next", and "Last" are located at the bottom of this list.
- Map:** A map showing the route from Maastricht to Heerlen. The route is highlighted in red, starting in Maastricht, passing through Meerssen, Valkenburg, and Schin op Geul, and ending in Heerlen. The map includes labels for various locations and roads.
- Trip Options:** A panel on the left side of the map. It includes fields for "Start" (stop Heerlen) and "End" (stop Maastricht). The "Depart" time is set to 10:11am on 03/05/2021. The "Travel by" mode is set to "Transit". The "Maximum walk" is set to 5.00 miles. The "Preferred Routes" are set to "None". The "Weight" is set to "None". The "Banned routes" are set to "None". The "Wheelchair accessible trip" checkbox is unchecked. A "Plan Your Trip" button is at the bottom of this panel.

Open Trip Planner

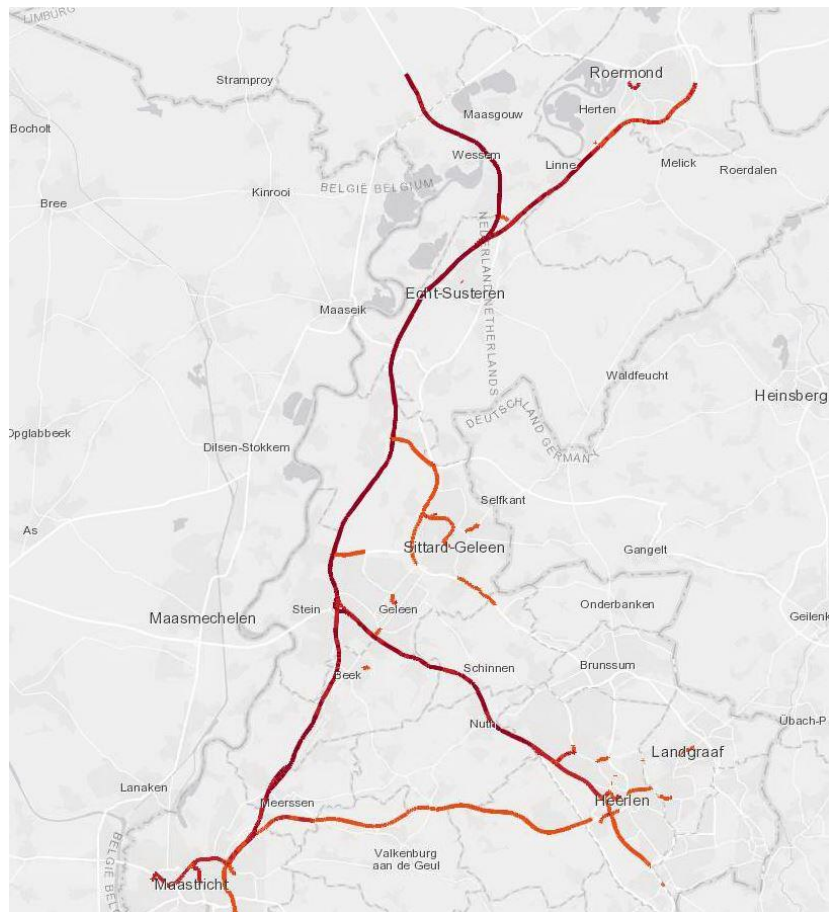
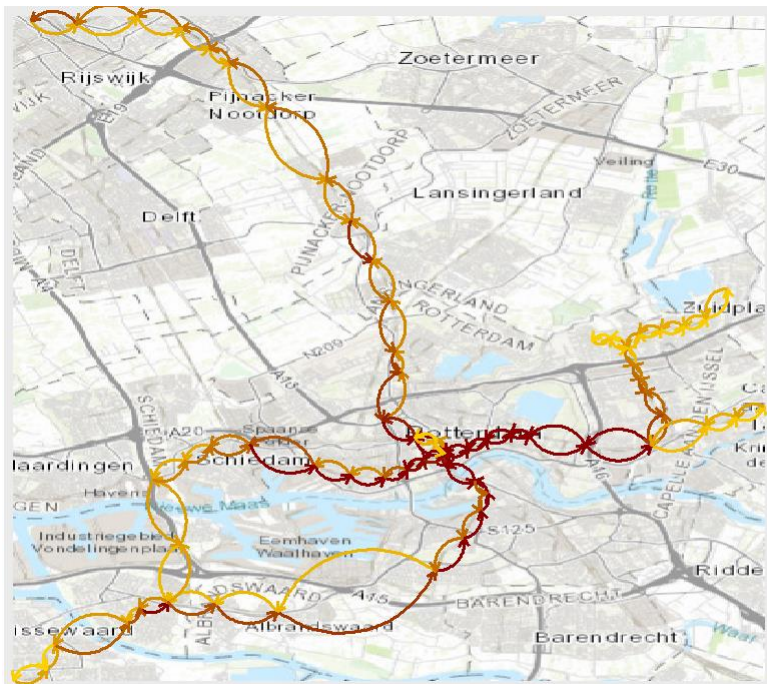
In: OD pair; OSM data

Out: route





Estimates



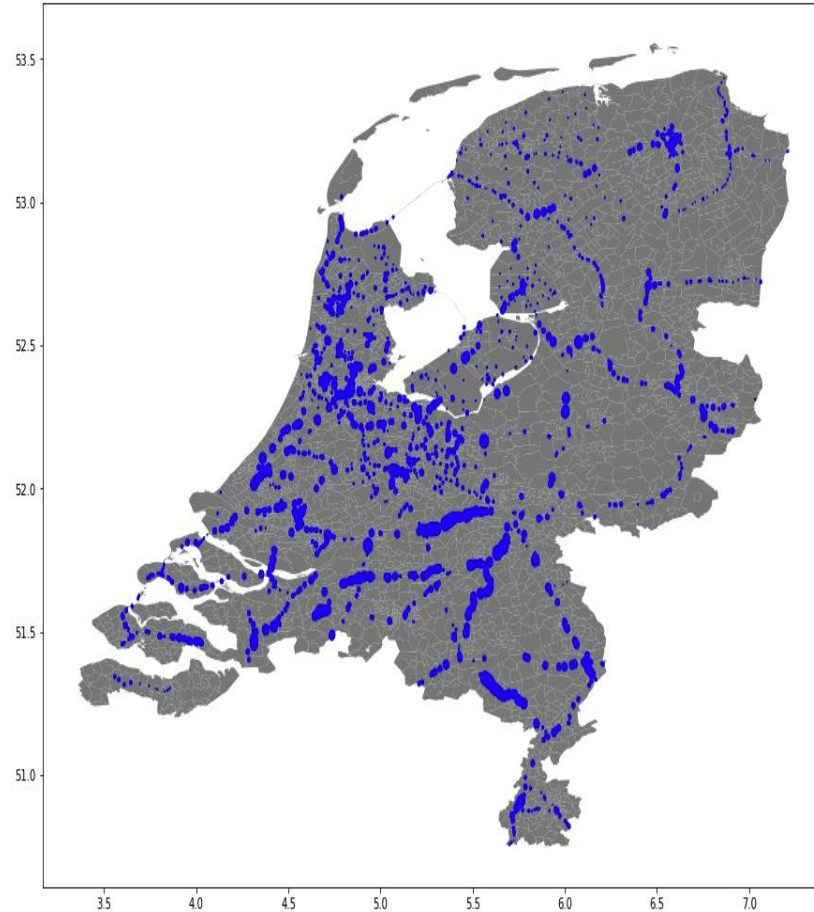
Traffic Loop Data

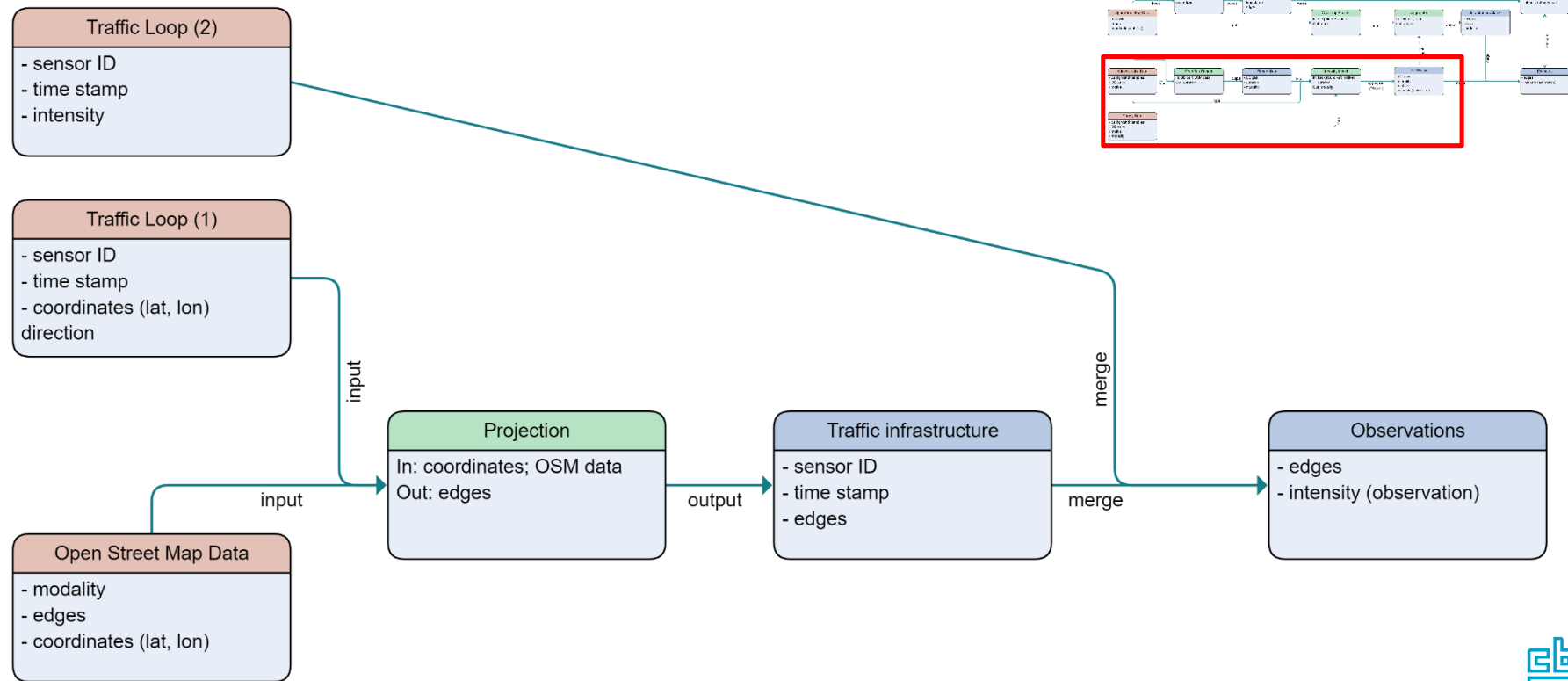
Traffic Loop (2)

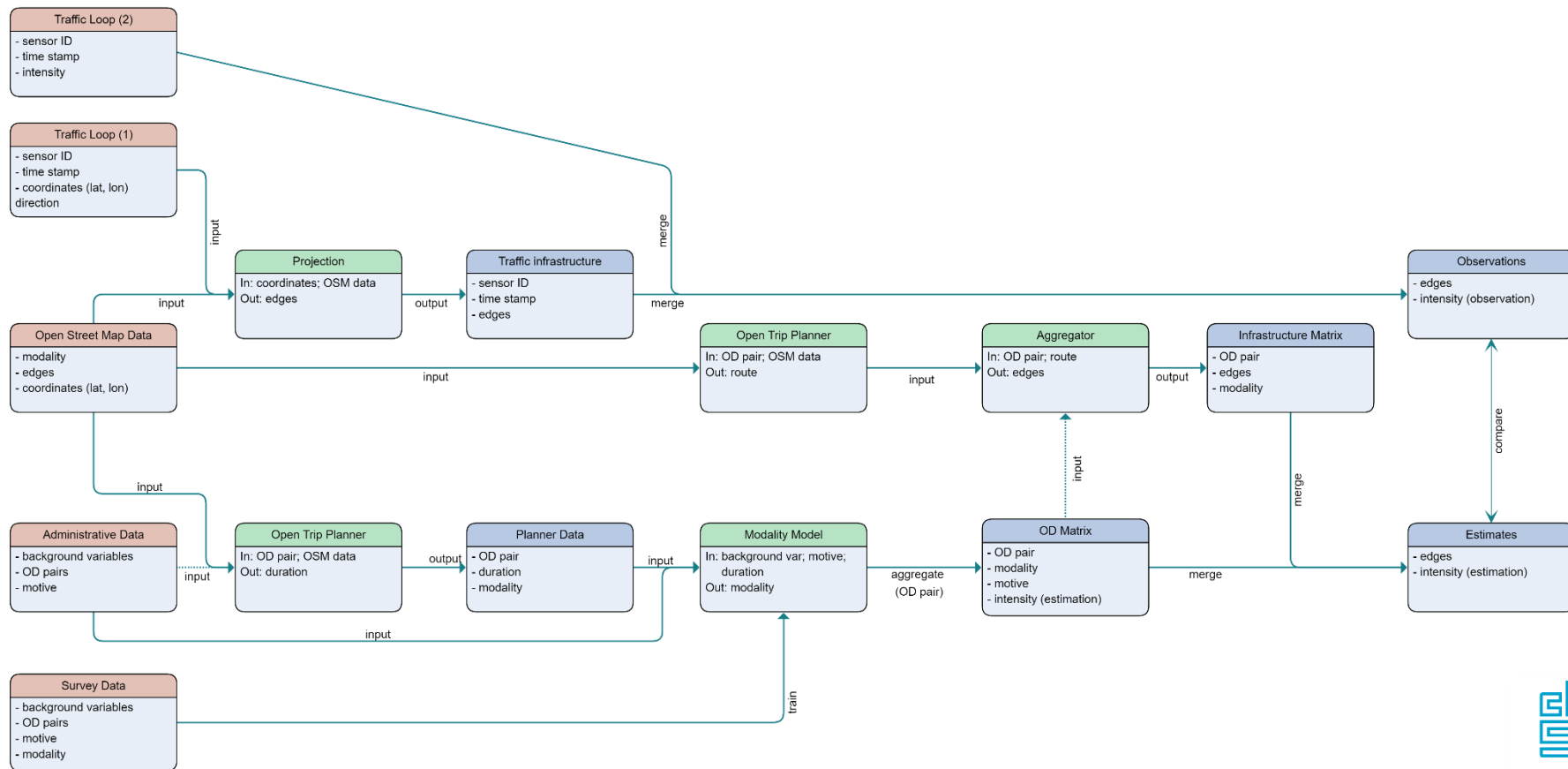
- sensor ID
- time stamp
- intensity

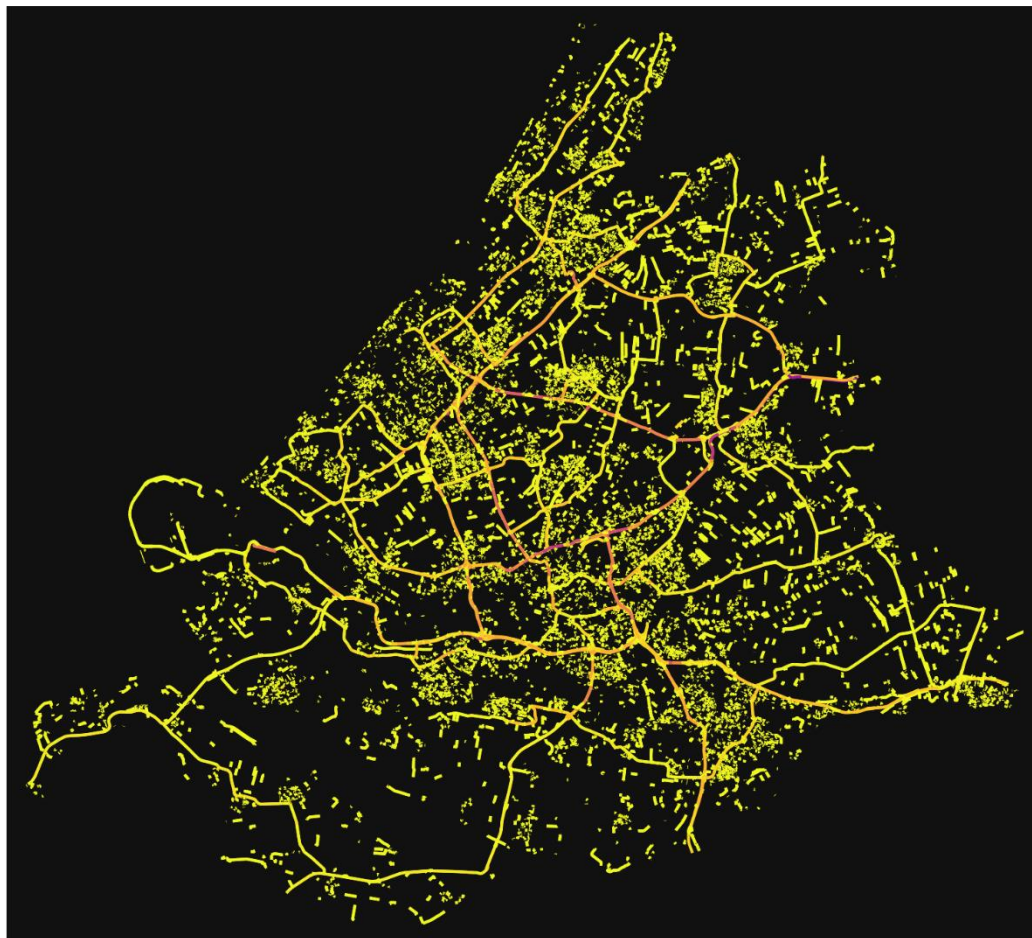
Traffic Loop (1)

- sensor ID
- time stamp
- coordinates (lat, lon)
- direction

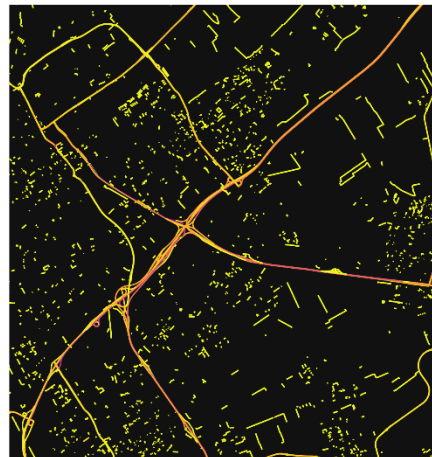
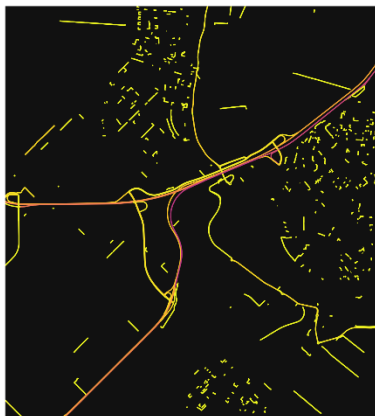
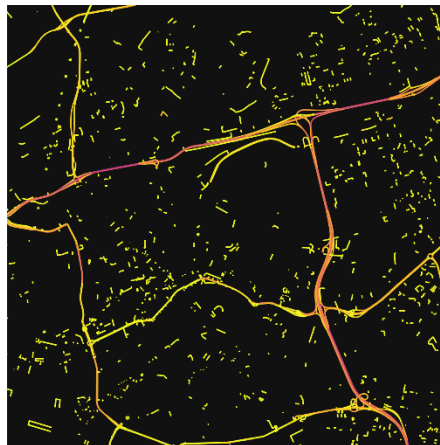
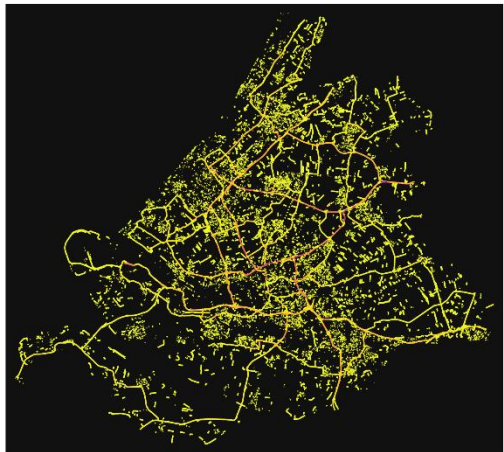








Patterns: intensity roads





Facts that matter