Simunto

Tramola

Matsim User Meeting 2025

Moritz Dück

Bavarian Vacation Chaos?

Use Case

MATSim workflow challenges

Working with large text files

120 Mb

network.xml.gz

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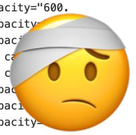

MATSim workflow challenges

Working with large text files

120 Mb

network.xml.gz

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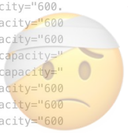

```
tree = ET.parse(xml_file)
root = tree.getroot()

links_section = root.find('links')
if links_section is None:
    print("No <links> section found.")
    return []

node_id_set = set(node_id_list)
link_pairs = []

for link in links_section.findall('link'):
    from_node = link.get('from')
    to_node = link.get('to')
    if from_node in node_id_set and to_node in node_id_set
        link_pairs.append((from_node, to_node))
```

MATSim workflow challenges

Managing Versioning

120 Mb

network.xml.gz

```
tree = ET.parse(xml_file)
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links_section = root.find('links')
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for link in links_section.findall('link'):
    from_node = link.get('from')
    to_node = link.get('to')
    if from_node in node_id_set and to_node in node_id
        link_pairs.append((from_node, to_node))
```

MATSim workflow challenges

Managing Versioning

120 Mb

network.xml.gz

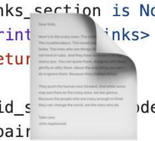
network_cleaner.py

```
tree = ET.parse
root = tree.get

links_section = root.find('links')
if links_section is None:
    print      inks> section found.")
    retur

node_id_s          ode_id_list)
link_pair

for link in links_section.findall('link'):
    from_node = link.get('from')
    to_node = link.
    if from_node in          t and to_node in node_id_set:
        link_pairs.a          n_nod
```



network.ipynb

bypass_changer.py

MATSim workflow challenges

Managing Versioning

120 Mb

network.xml.gz

network_cleaner.py

```
tree = ET.parse
root = tree.get

links_section = root.find('links')
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for link in links_section.findall('link'):
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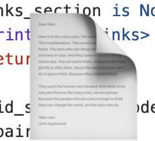


network.ipynb

bypass_changer.py

120 Mb

network-fixed.xml.gz

120 Mb

network-fixed2.xml.gz

120 Mb

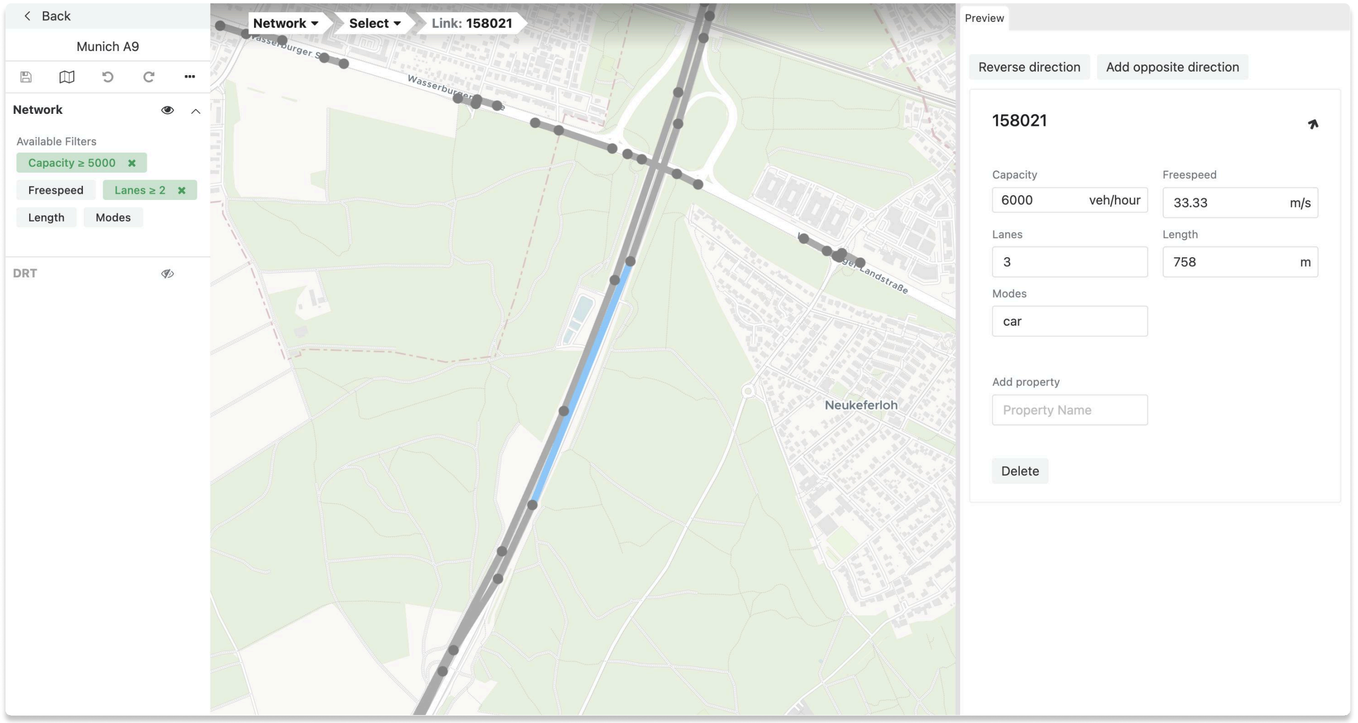
network-fixed2_bypass_cap_3000.xml.gz

Tramola

Scenario

- munich-v1.0-5pct.plans.xml.gz
- munich-v1.0-network_1.xml.gz
- munich.output_config.xml

Editor



Tramola

Scenario

- munich-v1.0-5pct.plans.xml.gz
- munich-v1.0-network_1.xml.gz
- munich.output_config.xml

Editor

Changsets

- Close Highway A9
- Hyperloop Oktoberfest
- BMW priority lanes

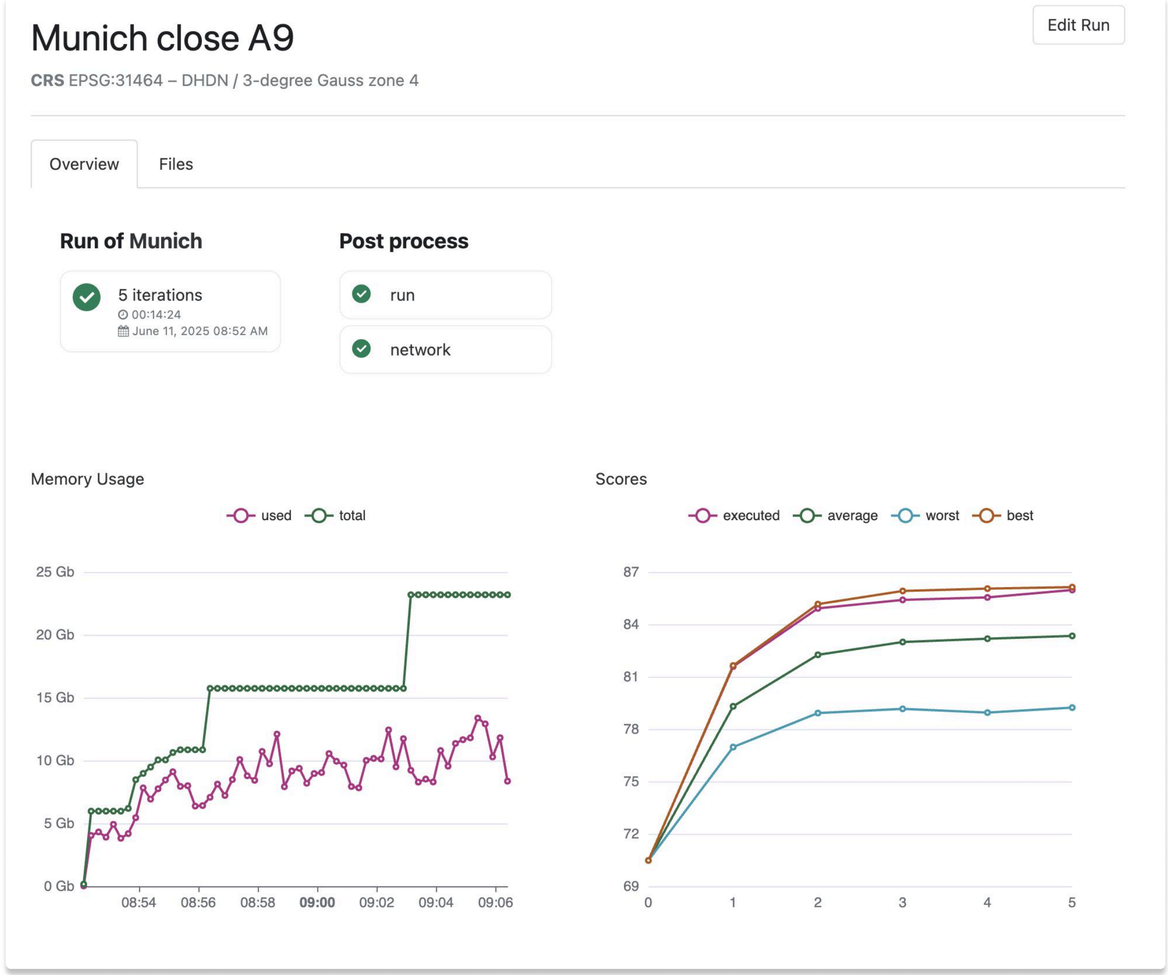
Tramola

Scenario

- munich-v1.0-5pct.plans.xml.gz
- munich-v1.0-network_1.xml.gz
- munich.output_config.xml

Editor

Run



Tramola

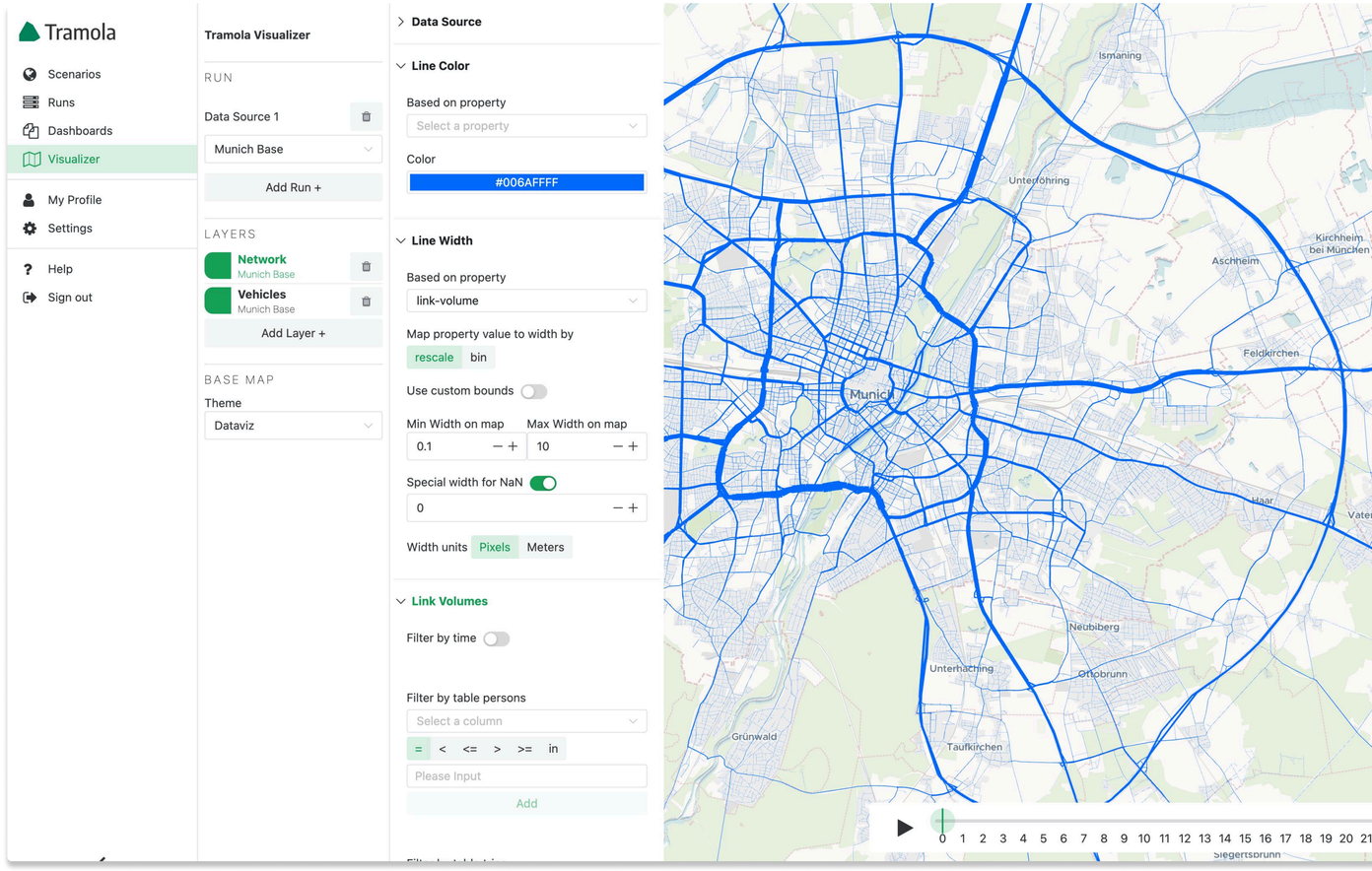
Scenario

- munich-v1.0-5pct.plans.xml.gz
- munich-v1.0-network_1.xml.gz
- munich.output_config.xml

Editor

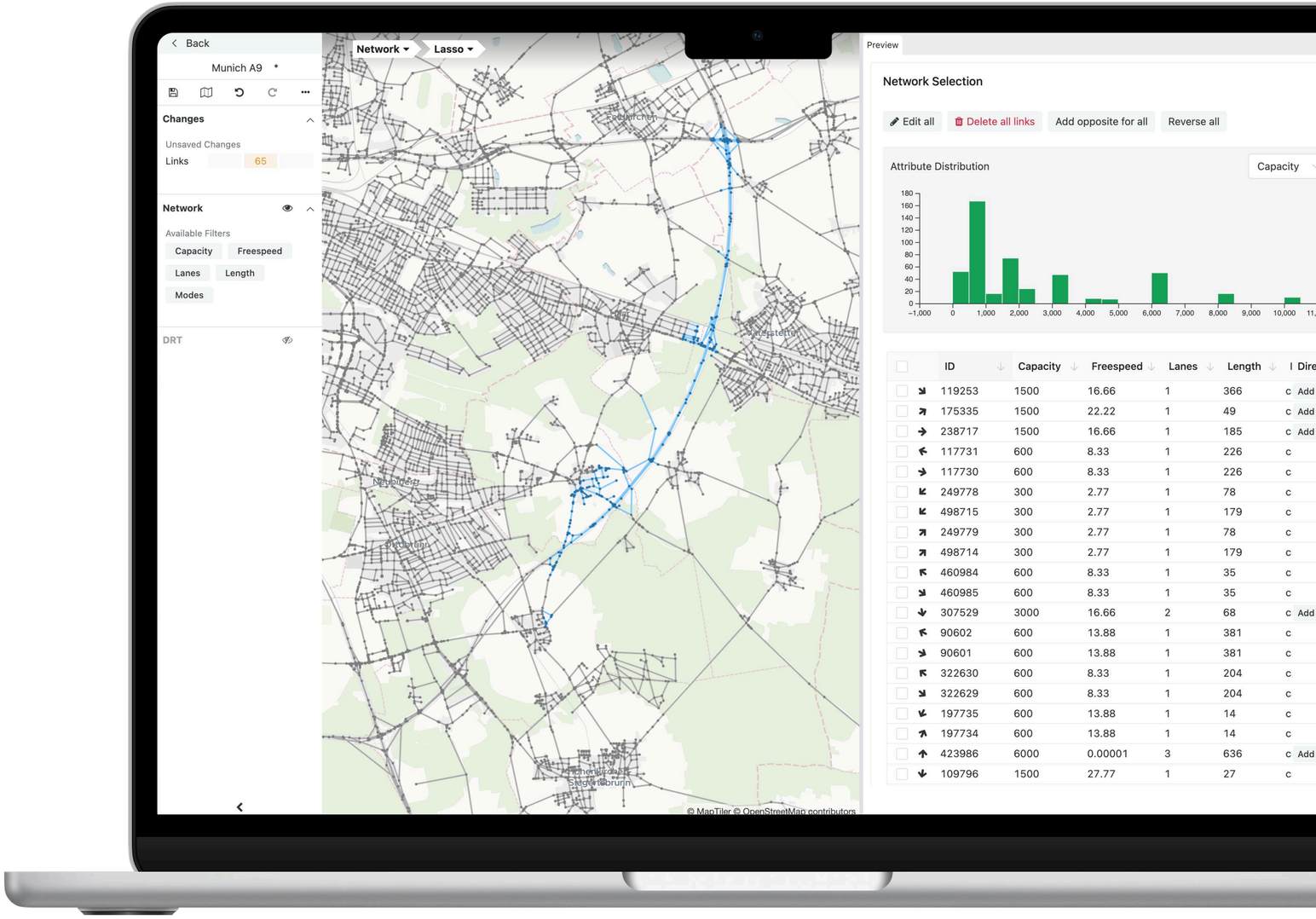
Run

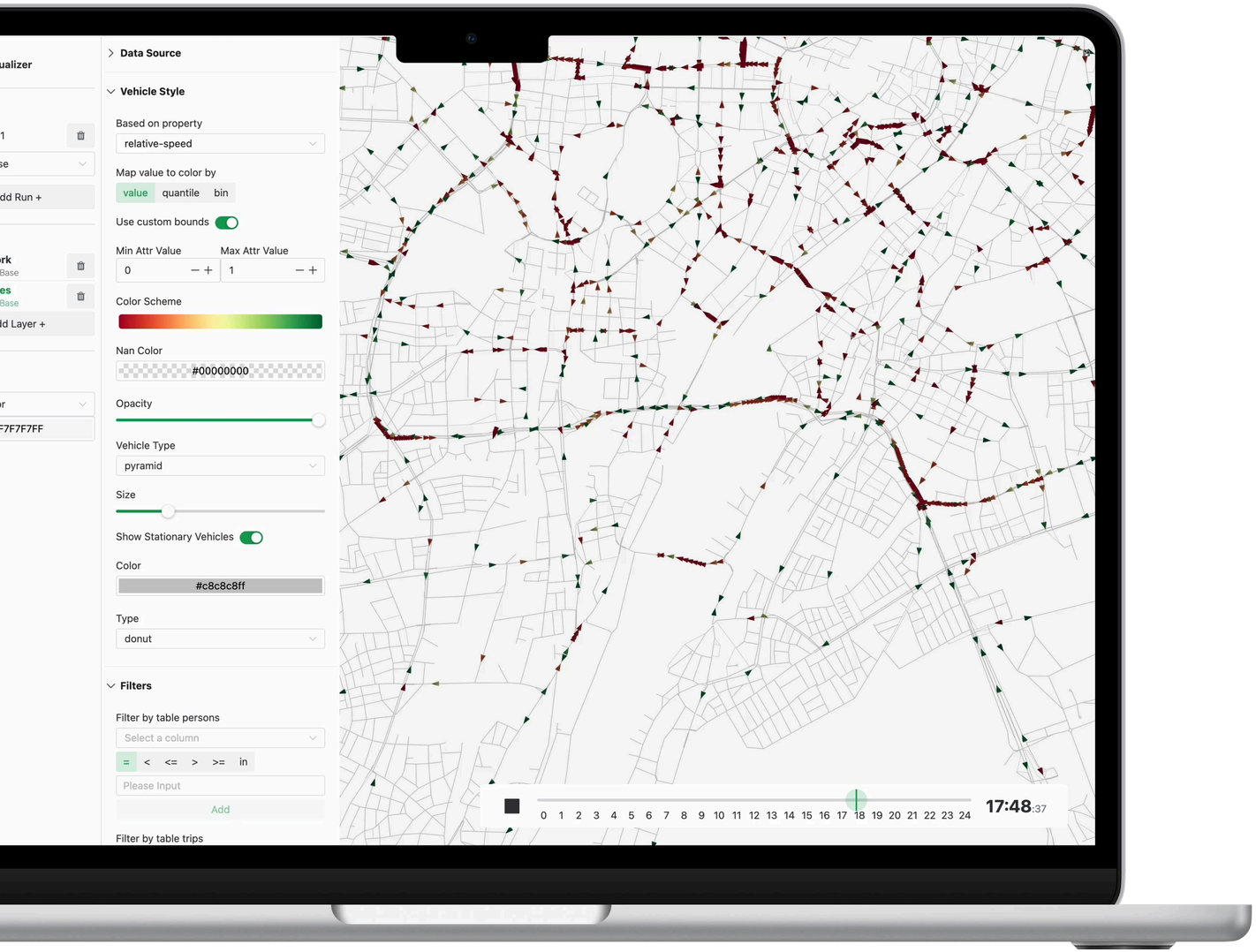
Visualizer



Tramola Editor

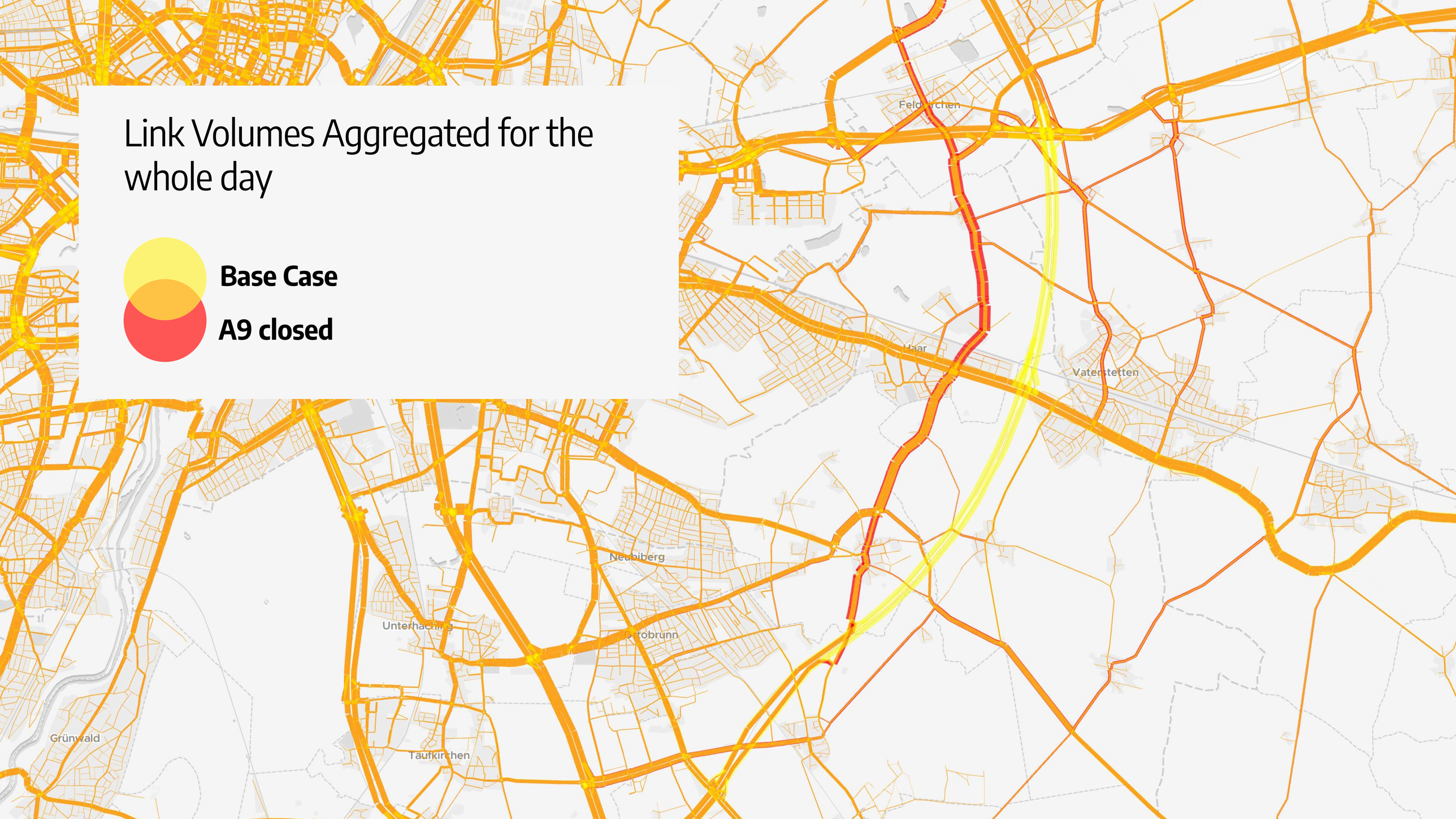
Edit network, transit and DRT



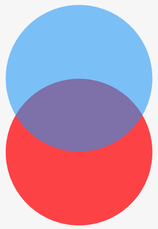


Tramola Visualizer

Easy, expressive and tailored to MATSim

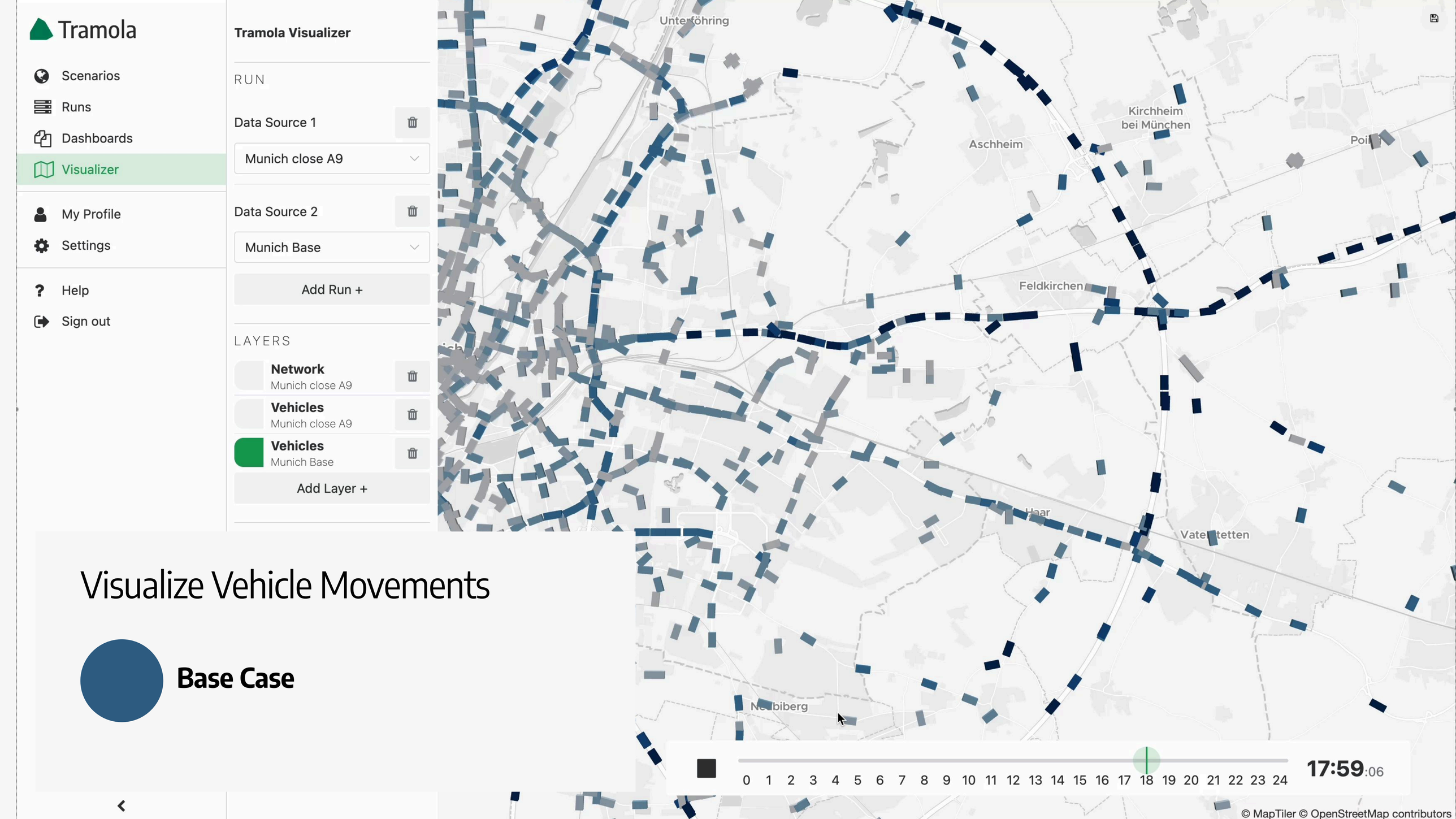

Link Volumes Aggregated for the whole day
Base Case
A9 closed
Haar
Vaterstetten
Neubiberg
Unterhaching
Grünwald
Taufkirchen

Link Volumes Aggregated for the whole day



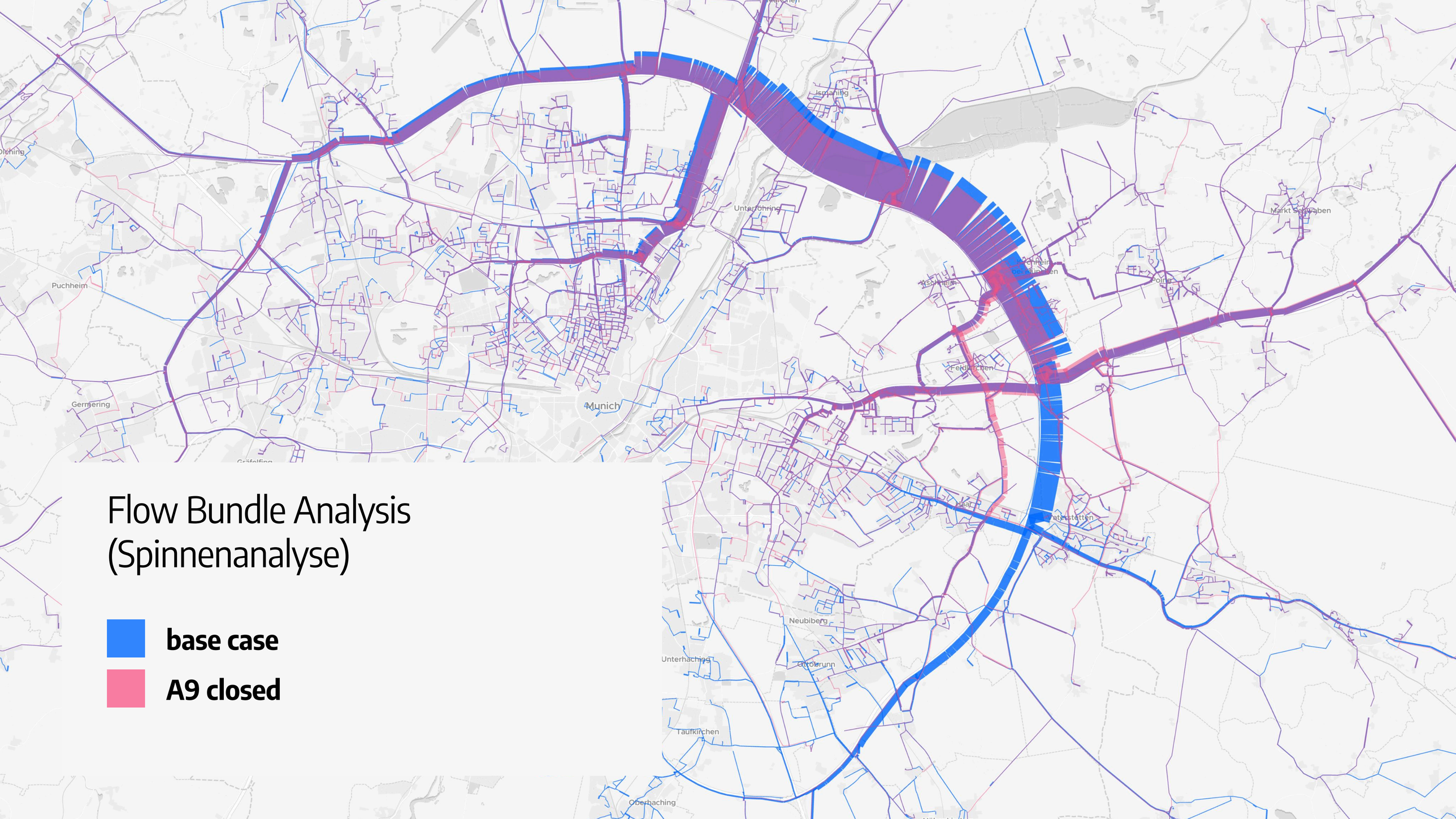
Base Case

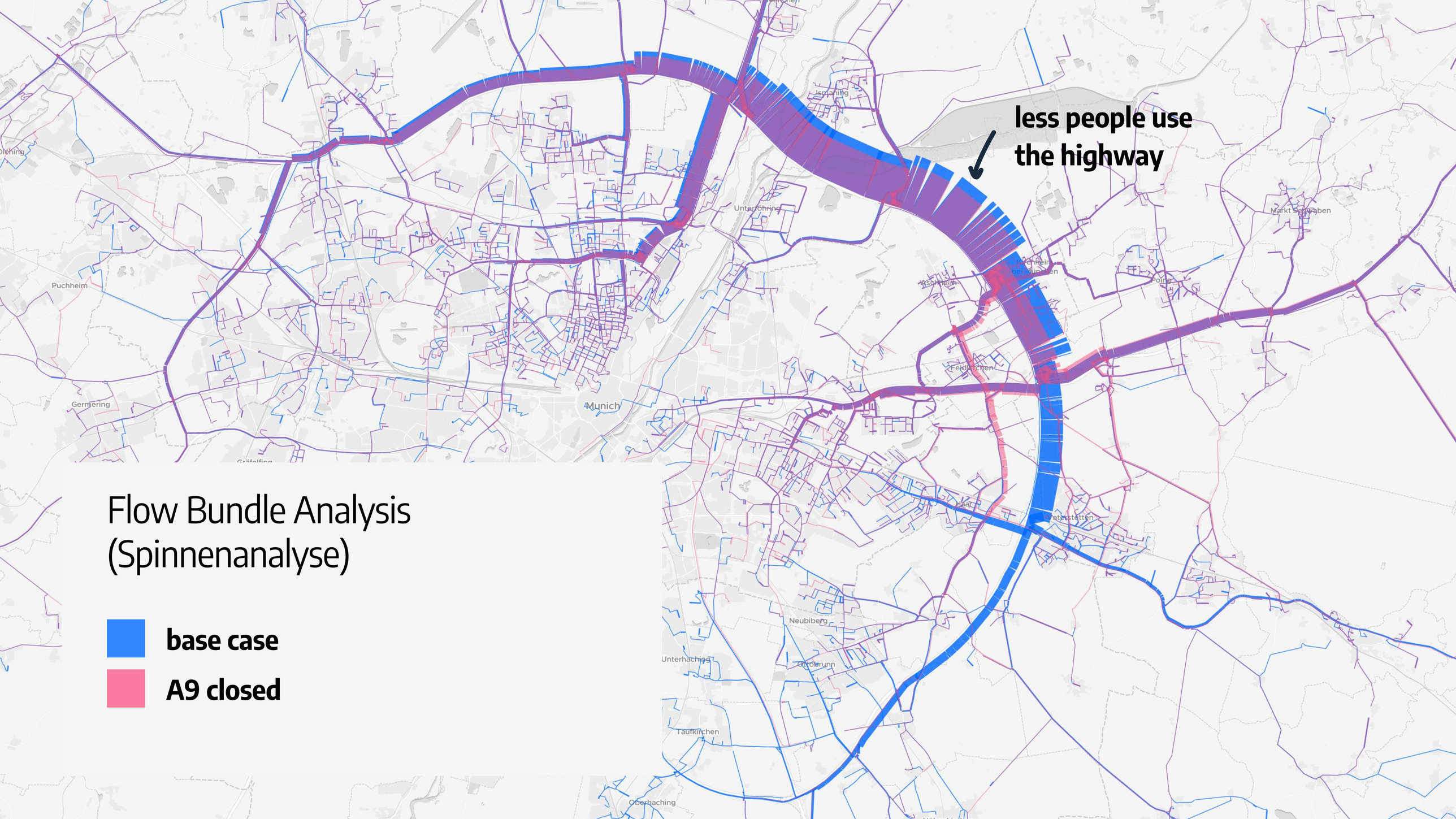
A9 closed

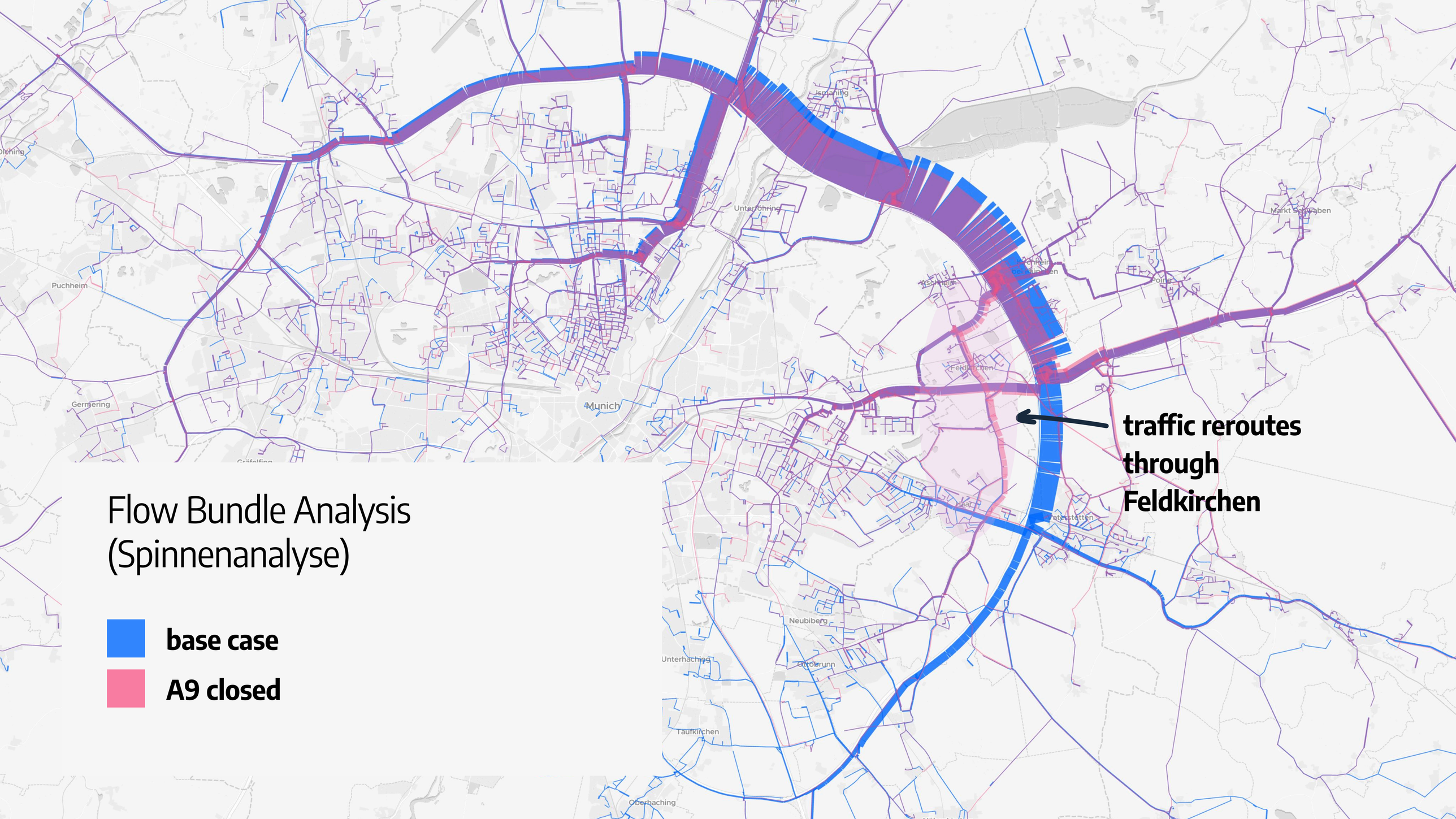


Visualize Vehicle Movements

Base Case


Flow Bundle Analysis
(Spinnenanalyse)
base case
A9 closed
Puchheim
Germering
Munich
Unterföhring
Ismaning
Markt Schwaben
Aschheim
Feldkirchen
Haar
Neubiberg
Unterhaching
Taufkirchen
Oberhaching


less people use
the highway
Flow Bundle Analysis
(Spinnenanalyse)
base case
A9 closed
Munich
Puchheim
Germering
Unterföhring
Ismaning
Markt Schwaben
Feldkirchen
Neubiberg
Unterhaching
Taufkirchen
Oberhaching


Flow Bundle Analysis
(Spinnenanalyse)
base case
A9 closed
traffic reroutes
through
Feldkirchen
Puchheim
Germering
Munich
Unterföhring
Ismaning
Aschheim
Feldkirchen
Markt Schwaben
Poing
Neubiberg
Unterhaching
Taufkirchen
Oberhaching

DRT Editor

Vehicles, Stops and Service Areas at your control

Outlook

Model Validation

Identify issues with your input data and validate your network right inside of Tramola

Difference Plots & Transit Analysis

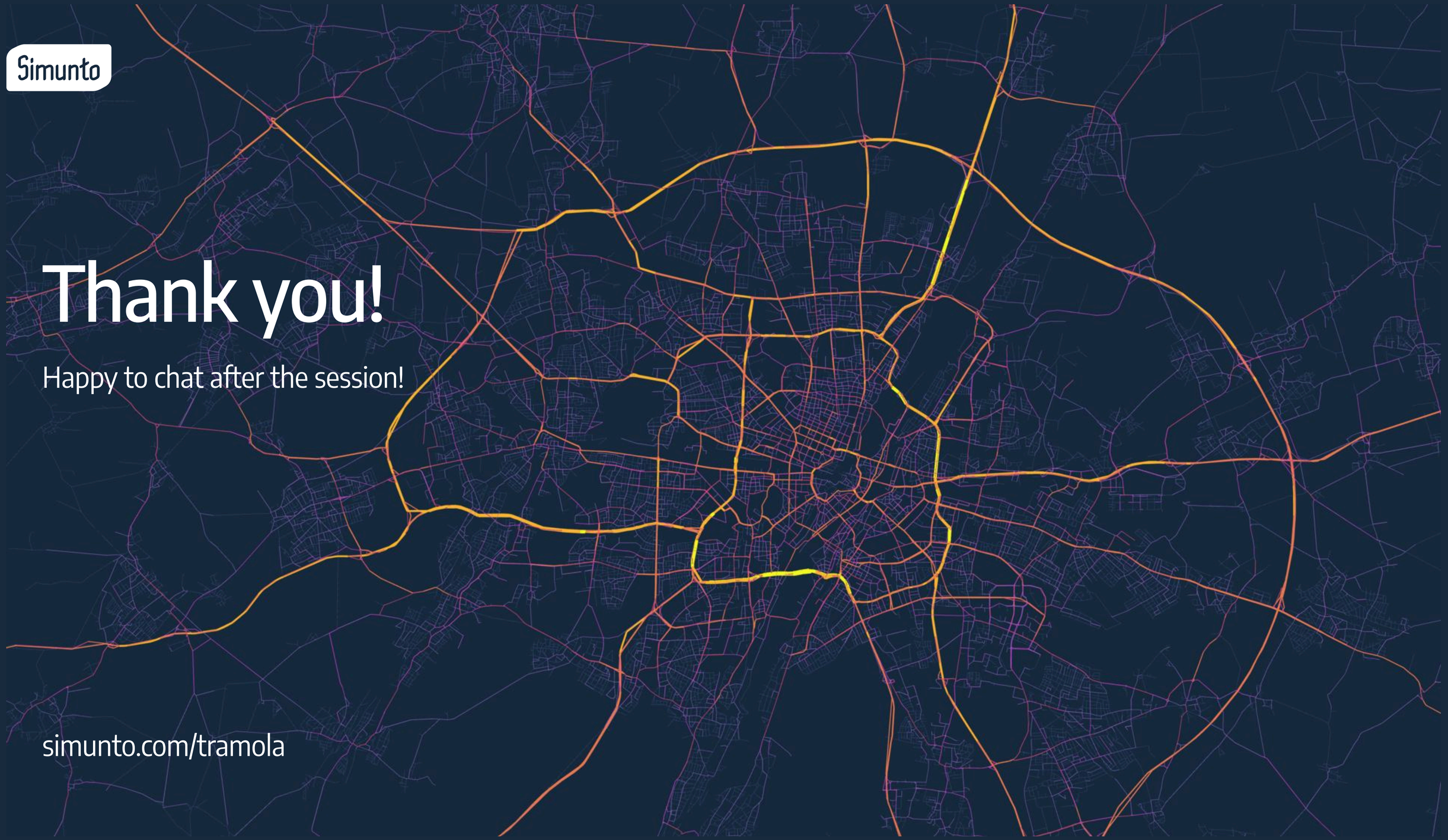
Analyse the impacts of your case studies with the click of a button

Easy Scenario Export

Export your scenario with changesets applied, so you can continue to work with your favorite workflow

More?

Approach us! We want to learn how we can best support you.



Thank you!

Happy to chat after the session!

simunto.com/tramola