Teralytics

Co-Pilot for Public Transport Planning

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Teralytics – Co-Pilot for Public Transport Planning

Data

Telefónica

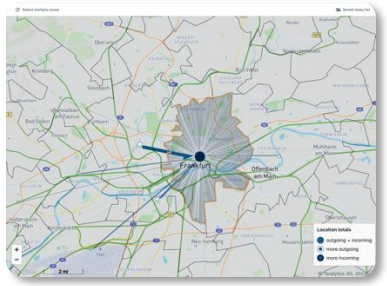
Anonymized mobile data from 30 million phones

combined with

- Public transport/regional rail transport routes and timetables
- Automated passenger counting data
- Surveys and public statistics

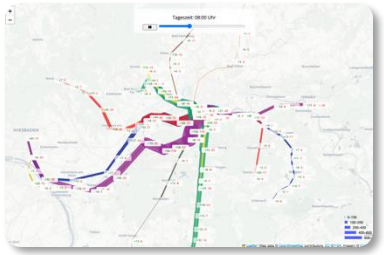
Products

Teralytics Matrix



Transport modeling

Teralytics Flow



Transport planning

Customers

Leading public transport and regional rail transport companies rely on us

SSB

DB

SPNV-Nord
Wir bewegen die Region

Hanse- und Universitätsstadt ROSTOCK

RMV

Heidelberg

MV
Mecklenburg-Vorpommern
Ministerium für Inneres, Bau und Digitalisierung

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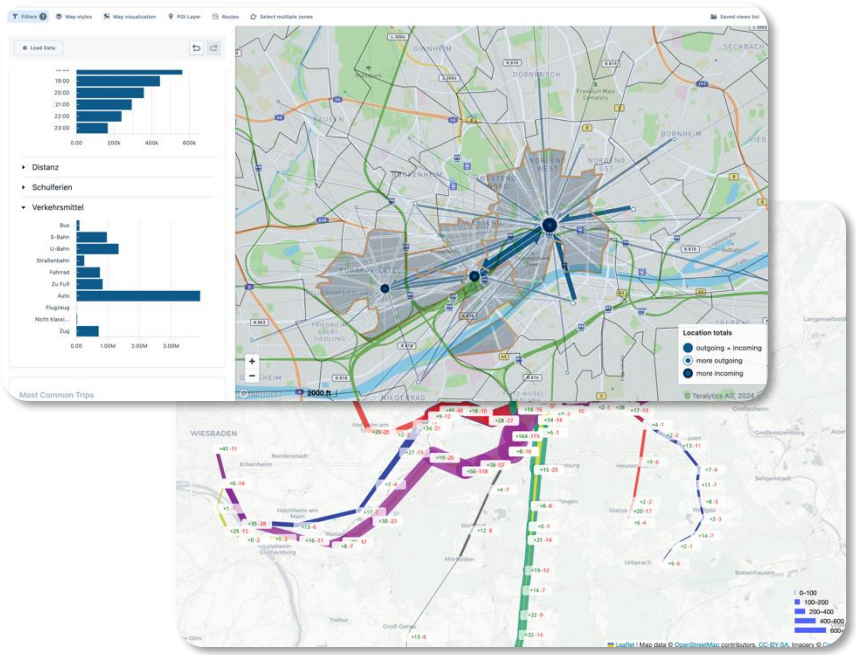
Teralytics Matrix & Flow - Many data sources, one clear picture

Cellular data
(30% of the population)

Automated Passenger Counting Systems
(APC)

Survey data
(calibrated with MiD)



Connection queries

Timetables
(GTFS, actual and target)

Real-time vehicle locations
(RBL / ICTS / AVL)

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Matrix & Flow – Mode of Transport Detection Methodology

Survey of travel demand from mobile phone data

Anonymous movement data from 30 million phones updated daily. Seasonally adjusted extrapolation to total population.

Reference data:

- DeStatis - Resident population
- Employment Agency - Commuter statistics
- Mobilität in Deutschland

Mode of transport detection

Routing of travel demand with target timetable data. Parameters for mode of transport choice calibrated using modal split per room type from "Mobility in Germany" survey.

Reference data:

- DELFI - Target timetables
- Mobilität in Deutschland – Regional Package B2

APC-Calibration

Calibration of line- and station-specific utilization using customer-specific data from automatic passenger counting systems.

Reference data:

- Customer-specific Automatic Passenger Counting System Data

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Matrix

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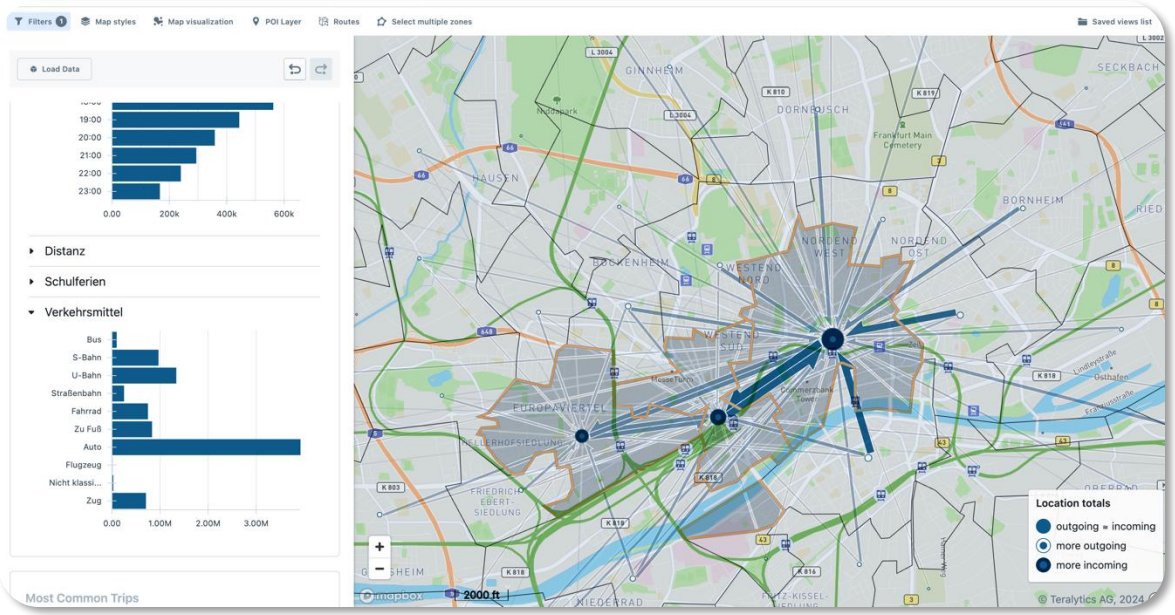
Teralytics Matrix for traffic models

Origin – Destination matrix with all journeys between each zone

By mode of transport

Updated monthly



Fine-grained geographical zones

By hour of the day and day of the week

Export for easy integration into traffic models

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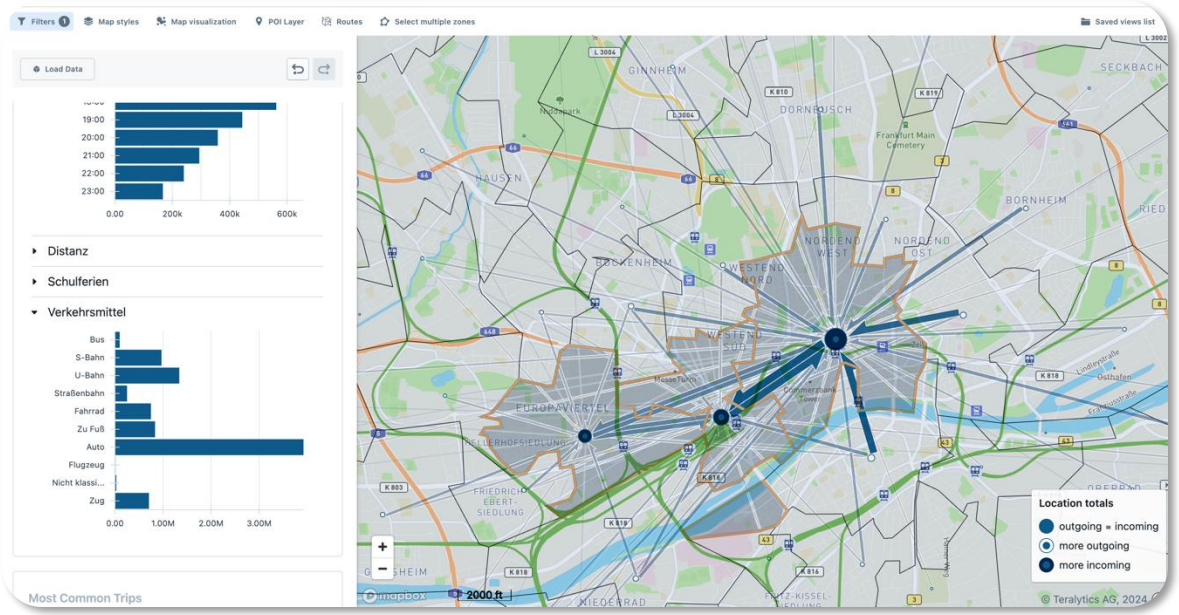
Teralytics Matrix for traffic models



- Calibration of traffic models
- Test demand for route scenarios
- Measuring market shares of public transport / private transport
- Comparative figures for AFZS / Ticket sales trends

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Flow

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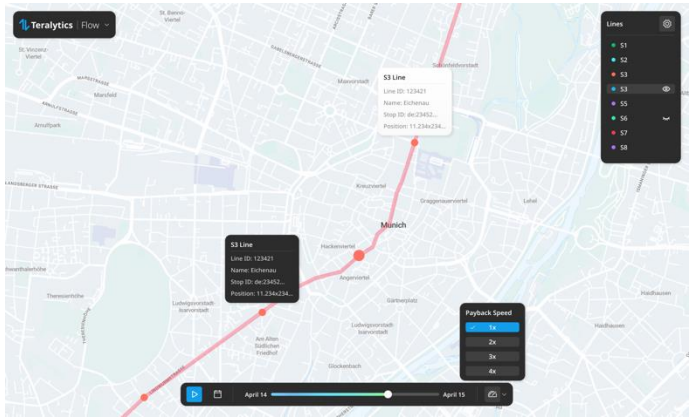
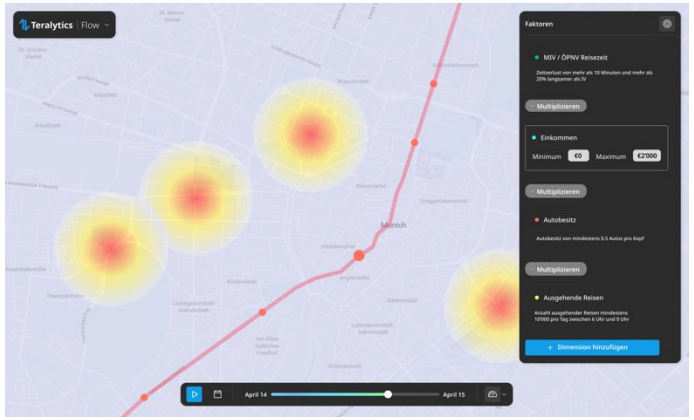
Teralytics Flow – Co-pilot for public transport planning

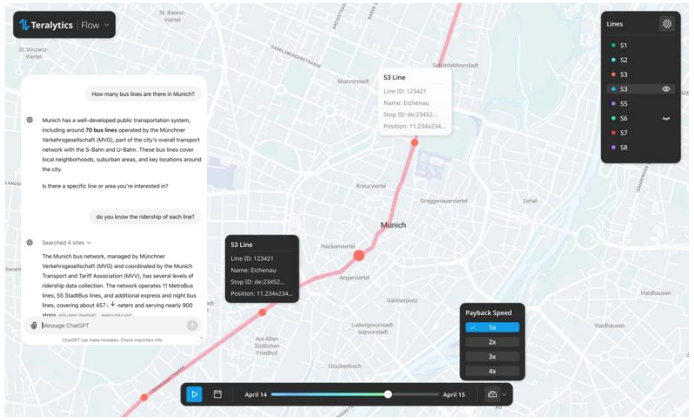
Quick Supply and Demand Scenarios



Corridor search based on income, relative travel time, etc



AI Co-Pilot as Planning Assistant



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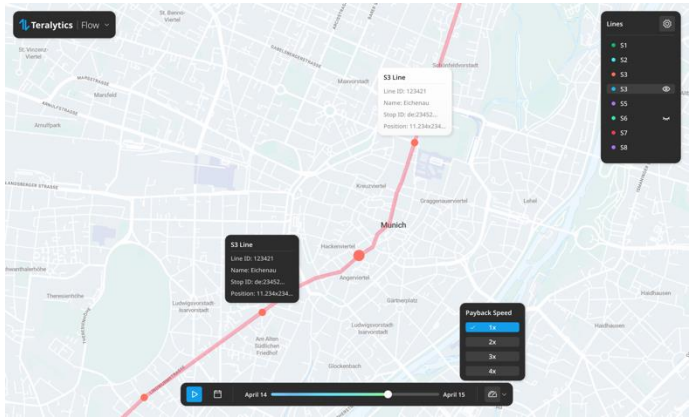
Teralytics Flow – Scenarios

Fast Supply and Demand Scenarios



Easy editing of routes, stations, frequency and timetables

Easily adjust demand for events, residential areas, etc.

Quickly calculate new demand based on total mobility

Comparison between scenarios on map and via graphs

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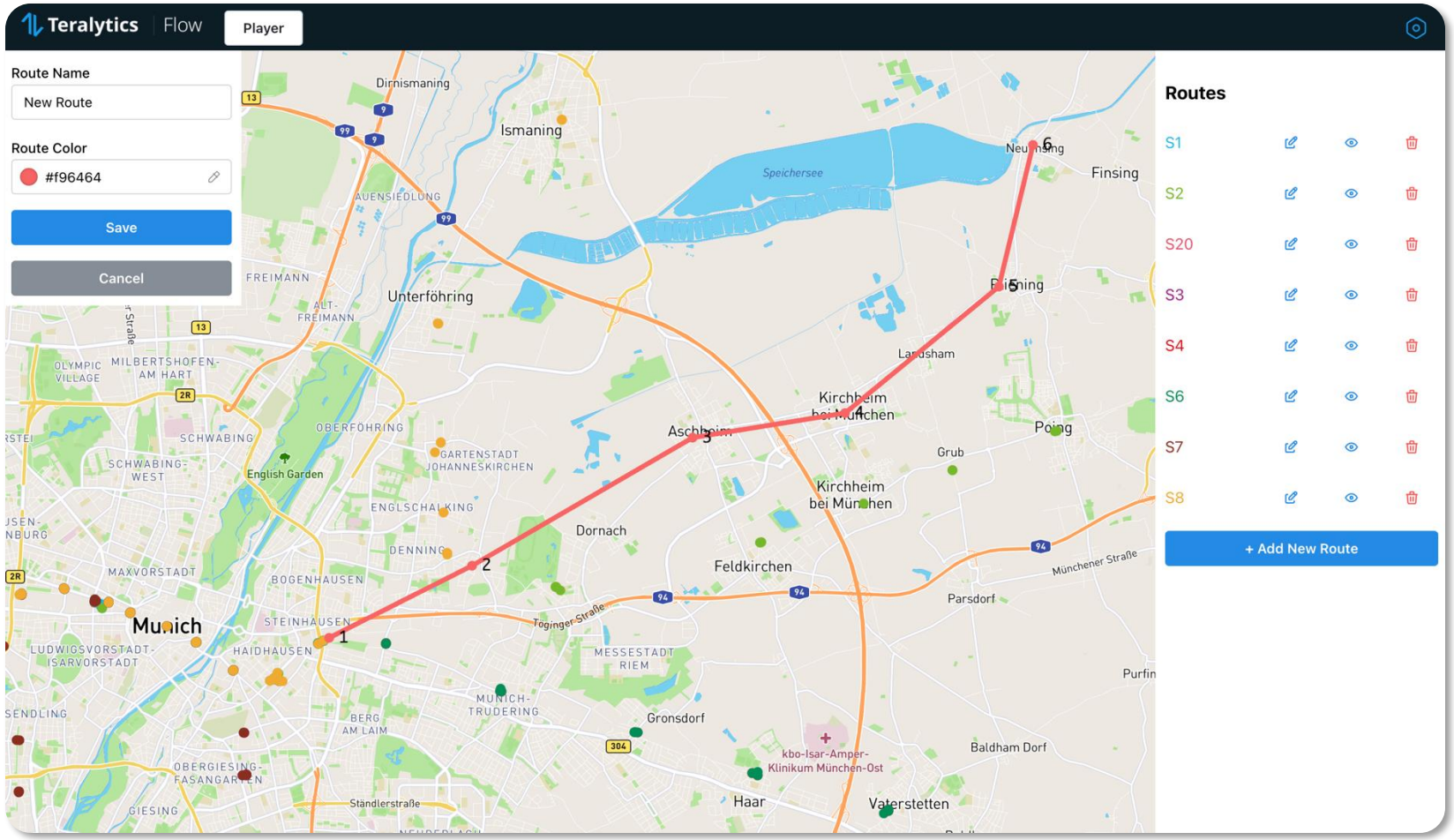
Teralytics Flow – Scenarios



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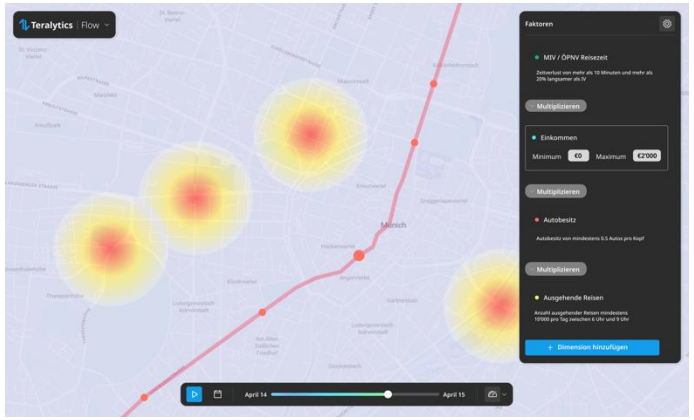
Teralytics Flow – Corridor-Search

Corridor search based on income, relative travel time, etc



Q1 2025

Inclusion of private transport/public transport travel time, income, jobs, etc.

Free combination and configurable weighting

Visualization of factors via heatmap

Pre-calculation of corridor alternatives

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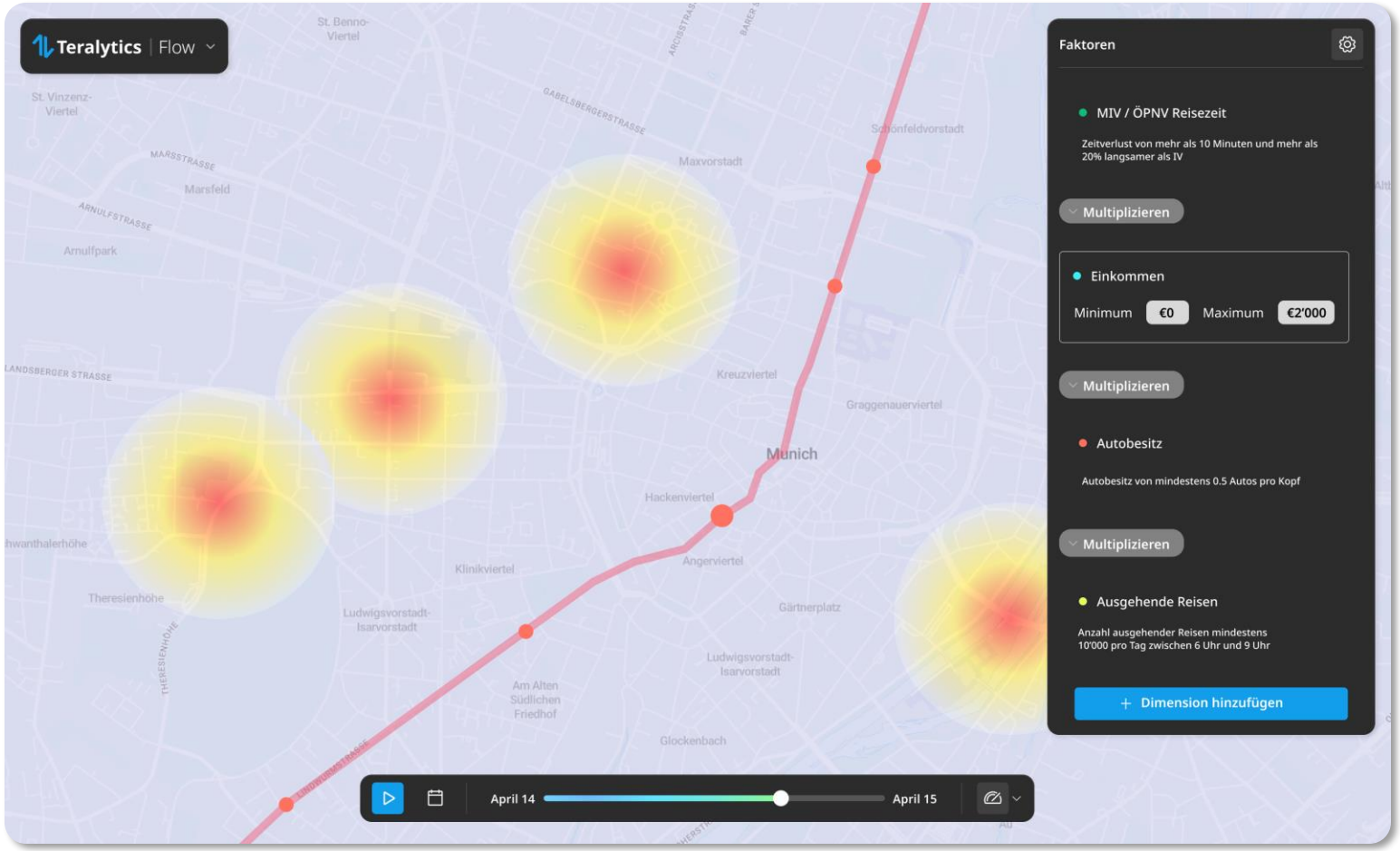
Teralytics Flow – Corridor-Search



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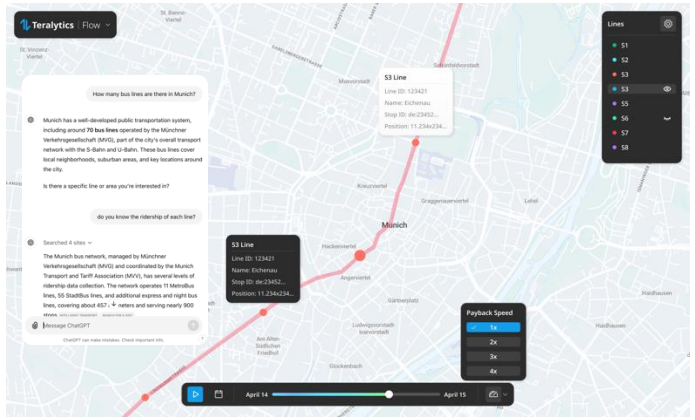
Teralytics Flow – AI Co-Pilot

AI Co-Pilot as Planning Assistant



Q2 2025

Interactive dialogue with AI Co-Pilot on all planning issues

Integration of operating costs into planning recommendations

Automatic generation of service improvement ideas

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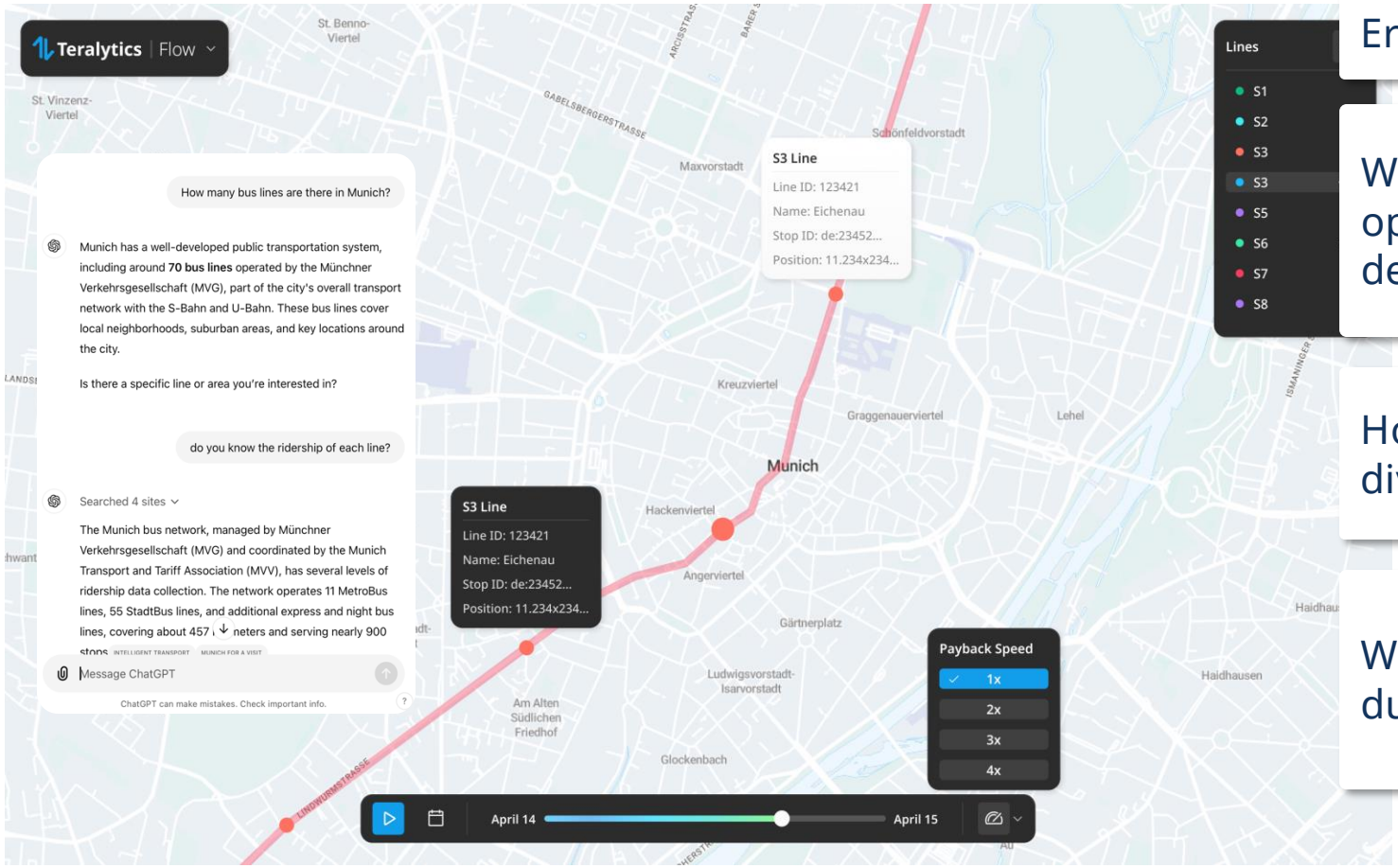
Teralytics Flow – AI Co-Pilot



Is it worth extending the S8 line to Erding?

Where can we save 5% of our bus operating costs with minimal service degradation?

How do we minimize the impact of bus diversion when repairing stations?

Where should we adjust the schedule during the Metallica concert?

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