TriMet Next Generation Trip Planner

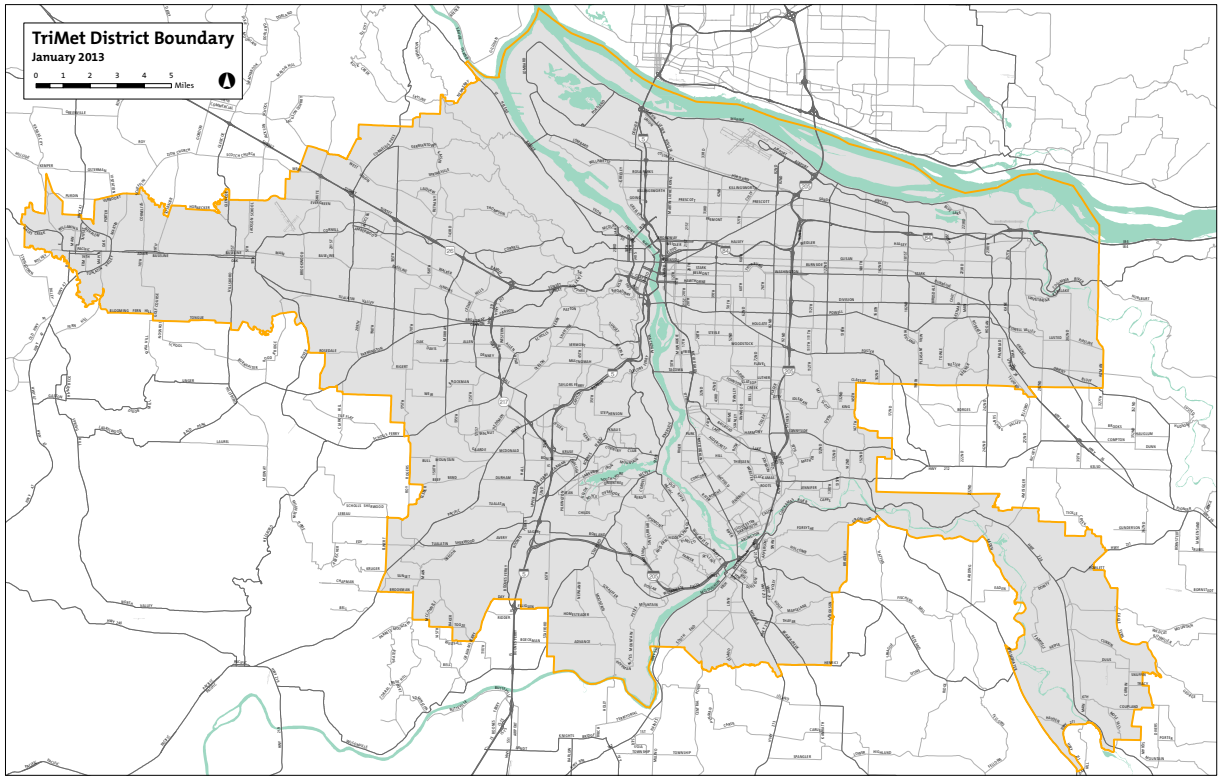
Portland Metro Area, Oregon

National Center for Mobility Management

Key Dates & Project Owner

In January 2019, TriMet launched the beta version of the 'Next Generation Trip Planner'.[1] The Next-Gen Trip Planner was then released as part of TriMet's redesigned homepage in Fall 2021. TriMet, the project owner, is the public transit agency serving the Portland metro area, Oregon. The map below shows the extent of its service area.[2]

1. Next Generation Trip Planner Service Area



Geographic Context

TriMet serves the Portland, Oregon metropolitan area. The region consists of urban and suburban geographic contexts.

Project Goals

TriMet pursued this project to[3]:

[1] https://newplanner.trimet.org
[2] https://trimet.org/pdfs/taxinfo/trimetdistrictboundary.pdf
[3] https://web.archive.org/web/20190619220426/http://trimet.org/mod/

- Extend their existing multimodal trip planner to include private mobility service providers
- Make transit planning information more easily accessible and streamlined into one app so customers can make more informed choices
- Create a product that could be easily and cost-effectively replicated by other transit agencies

Specific User Groups

The trip planner was directed toward the general population in the Portland metro area, Oregon.

Governance Model

TriMet took on a significant leadership role for this project, playing what may be classified as the 'MaaS promoter' role on this project. Find out more about this public sector governance role, and others, on the MaaS Governance Models page.[4]

At the same time, collaboration with a large network of contributors was critical for the success of the project. Particularly in dense urban areas, coordinating between many stakeholders and learning from other metro areas becomes critical. TriMet credits the following groups for helping make the project successful:[5]

- **Key Project Partners:** IBI Group (project coordination), Conveyal LLC (app development), Cleared for Takeoff and Mapzen (Pelias geocoder development team), Oregon Metro (regional improvements), and moovel North America (integrated fare payment white paper)
- **Other Project Partners:** Alameda-Contra Costa Transit District, City of Portland, CUTR, Fehr & Peers, LA Metro, Motivate, Portland Streetcar, VTA, VTrans
- **Data Providers**: Biketown, Car2Go, Lyft, Uber, Zipcar
- **Active Contributing Participants:** BART, Booz Allen Hamilton, Cambridge Systematics, Clevor Consulting Group, Connective DX, DKS Associates, Full Path Transit Technology, Interline Technologies, Lane Transit District, Oregon DOT, PlusQA, ReachNow, RTD (Regional Transportation District of Denver), Ride Connection, Samsung, Shared-Use Mobility Center, Transportation Sustainability Research Center, UC Berkeley, Trillium Transit

Funding

TriMet received a Mobility on Demand (MOD) Sandbox Grant for project development, which took place from 2017 to 2019. As explained by TriMet, the MOD Sandbox award was $678,000, supported by $324,000 of in-kind contributions."[6]

Project Components

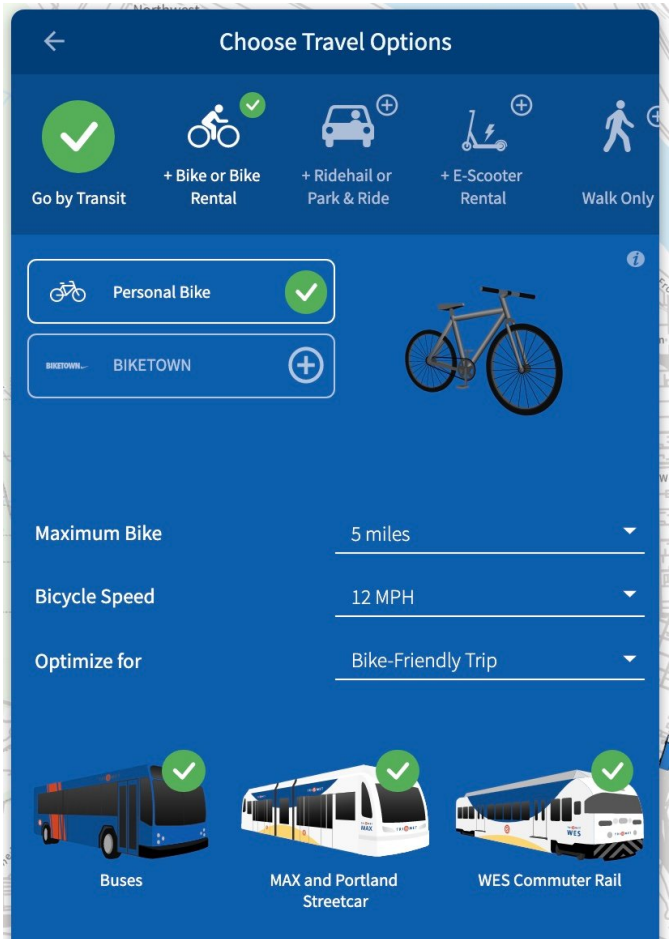
[4] MaaS Governance Models page
[5] https://web.archive.org/web/20190619220426/http://trimet.org/mod/
[6] https://web.archive.org/web/20190619220426/http://trimet.org/mod/

The Next Generation Trip Planner helps users navigate many transportation options in the Portland metro area. The latest version of Trip Planner includes several new features and functions that expand on TriMet's beta version. These include:

- **New Modes:** Additional modes of travel were added to the trip planner. The travel options and modal combinations included in the trip planner are transit, cycling, walking, transit & personal bike, transit & bikeshare, transit & e-scooter, transit & park+ride, as well as transit & Uber. Biketown is included as the bikeshare partner.[7] TriMet, in the Next Generation Trip Planner press release,[8] described Biketown as "an integral part of Portland's transportation network, made possible through a partnership between the City of Portland Bureau of Transportation (PBOT), title sponsor Nike and its new operator Lyft." As of October 2021, Trip Planner included five e-scooter companies as well.
- **Comparison Factors:** The trip planner enables quick comparison of the time the trip will take, the calories it will burn, the cost (for transit and uber), and the elevation that will be traveled. Elevation information is not common in all trip planners but helps people with limited mobility and others plan for a trip's physical energy expenditure.
- **New Data Specifications:** TriMet leveraged the General Bikeshare Feed Specification (GBFS) in Next Generation Trip Planner to allow the app to ingest Biketown data and make their bikes discoverable to travelers.
- **Intermodal Trips:** Next Generation Trip Planner let users plan multi-modal trips and facilitates the combination of different modes to form a complete trip. For example, for transit options that would normally involve a transfer between two transit routes, users can select 'transit & personal bike,' and remove the transfer and bike to a single transit route. This type of intermodal planning is not yet an industry standard and reflects an impressive step forward.

[7] https://account.biketownpdx.com/access-plans
[8] https://news.trimet.org/2019/03/trimet-tests-a-new-trip-planner-that-brings-together-transit-ridesourcing-carsharing-and-bikesharing-options/

2. Users can choose from one or more modes when planning a trip[9]



- **Technology Upgrades:** The data within the trip planner was upgraded to include the real-time locations of buses and trains, so users can evaluate options based on actual vehicle locations as opposed to relying on route schedules. Users can share preferences related to cycling trips such as their desired speed, the bike-friendliness of a route, or the flattest terrain. For pedestrian trips, improved sidewalk data was included to enable better results. In addition, the geolocation was improved, adding more local destinations to improve the recognition of addresses.

Related Efforts

TriMet is actively seeking to further expand its MaaS platform to include fare payment integration. Efforts to establish a new 'Transportation Wallet' which will combine services for a fixed fee have already begun. The Transportation Wallet pilot allows residents in targeted areas to purchase a package of transportation options for one set price

[9] https://bikeportland.org/2022/01/27/trimet-launches-new-trip-planner-rivaling-google-maps-rideshare-bias-344340

(subscription model).[10] It also provides low-income residents in select neighborhoods with free transportation wallet benefits.

3. Transportation Wallet Benefits and Prices[11]

In addition, "TriMet will receive funding to develop a mobility payment system that integrates payment for multiple modes into a single transaction. The project will build on TriMet's multimodal trip planner to reduce travel stress with better real-time arrival predictions."[12]

Full details on the trip planner project and future developments can be found on the project description page[13] as well as in the original press release.[14]

[10] https://www.portlandoregon.gov/transportation/78470

[11] https://www.portland.gov/transportation/wallet/signup

[12] https://learn.sharedusemobilitycenter.org/overview/a-transportation-wallet-merges-multimodal-services-in-portland-2020/

[13] https://web.archive.org/web/20190619220426/http://trimet.org/mod/

[14] https://news.trimet.org/2019/03/trimet-tests-a-new-trip-planner-that-brings-together-transit-ridesourcing-carsharing-and-bikesharing-options/