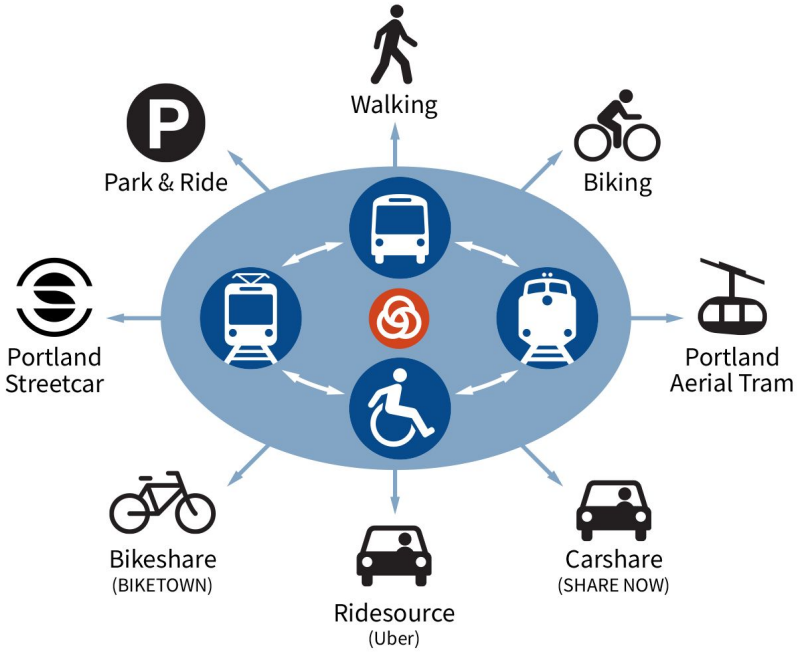
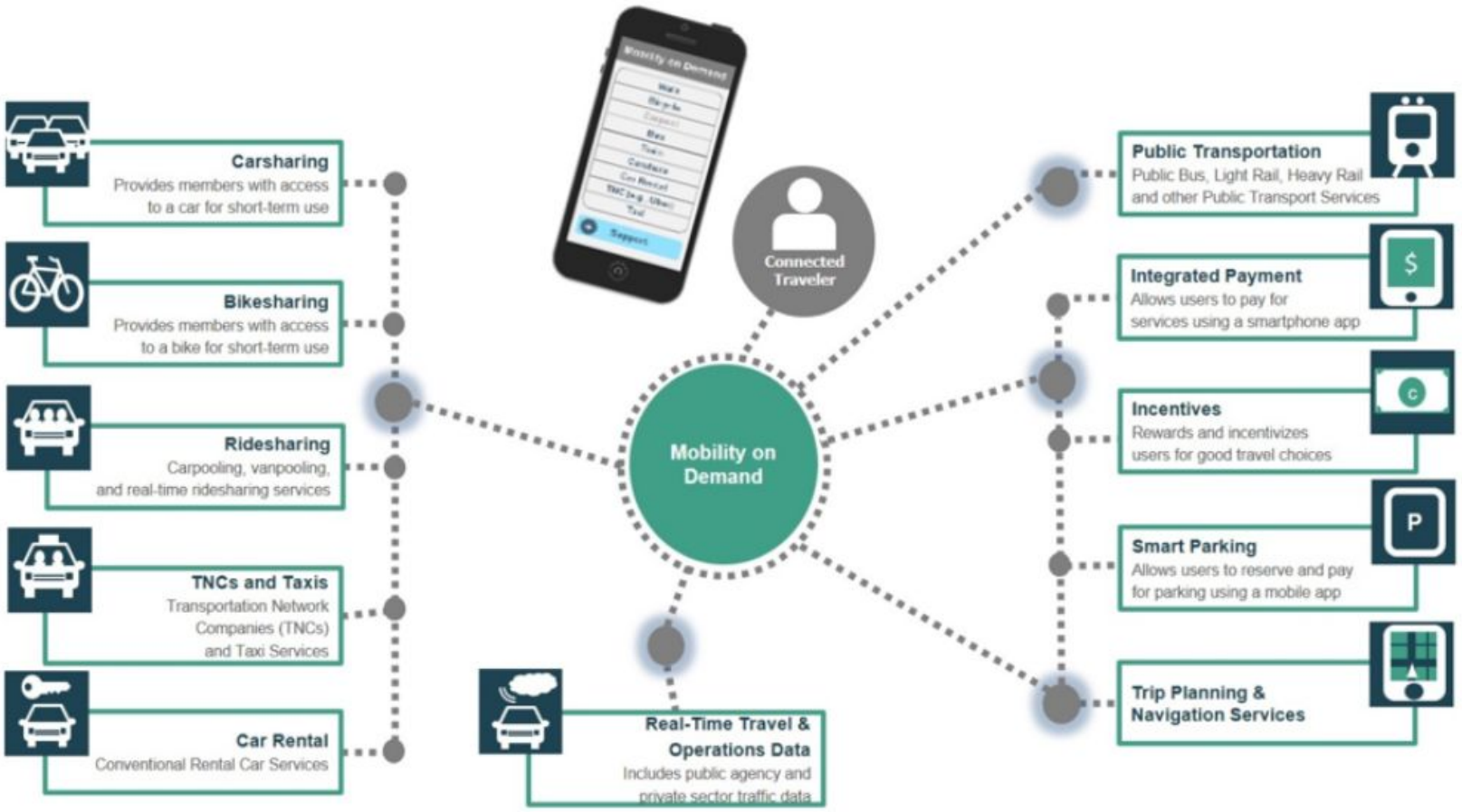
A COLLABORATIVE STRATEGY FOR FRICTIONLESS REGIONAL MOBILITY

Urbanism Next, May 8, 2019

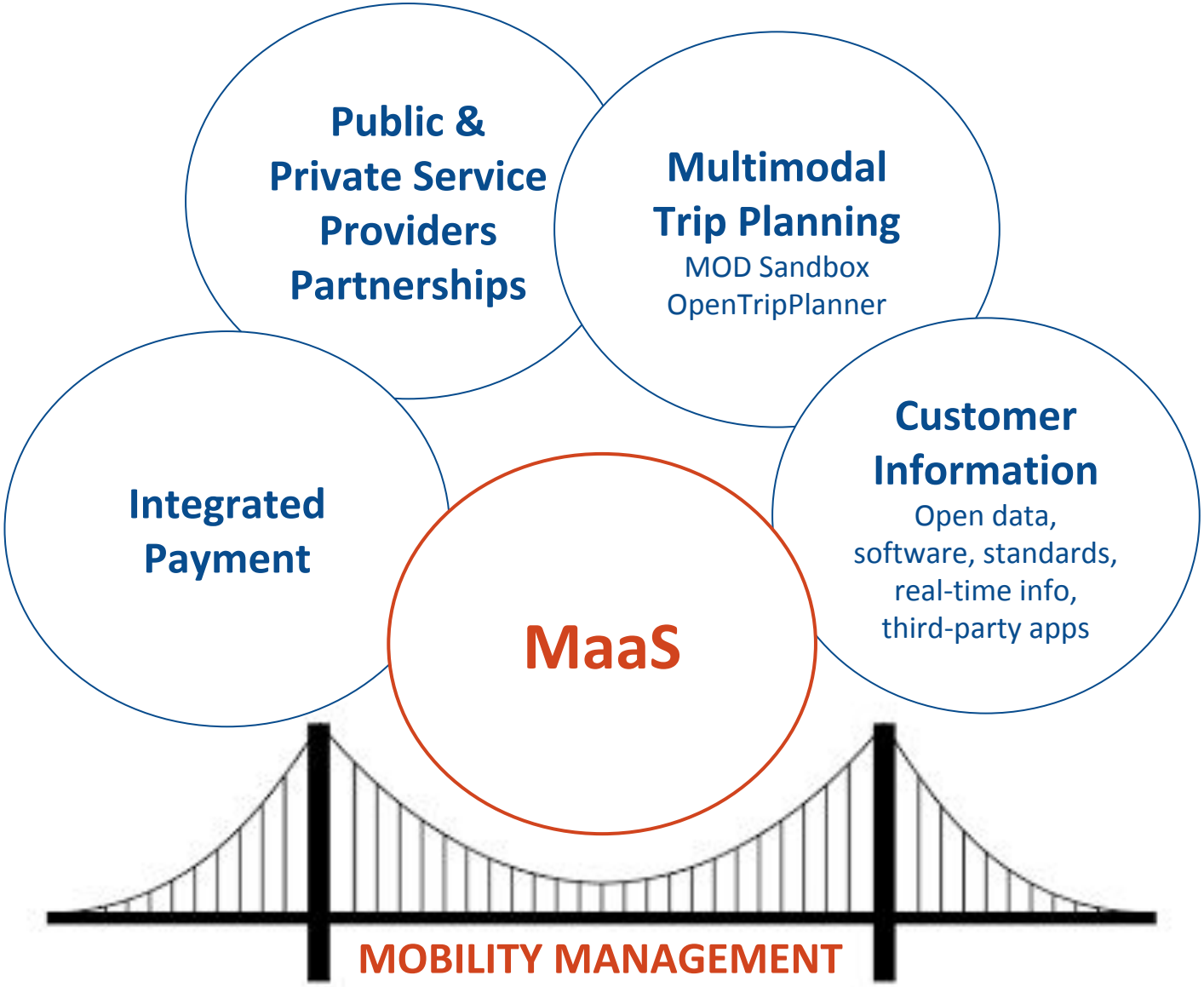


Bibiana McHugh, Manager, Mobility & Location-Based Services



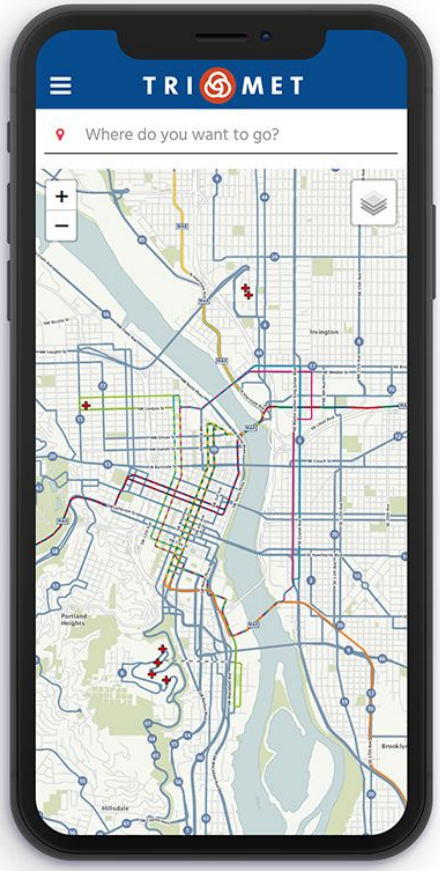
U.S. Department of Transportation
ITS Joint Program Office | Federal Transit Administration | Federal Highway Administration

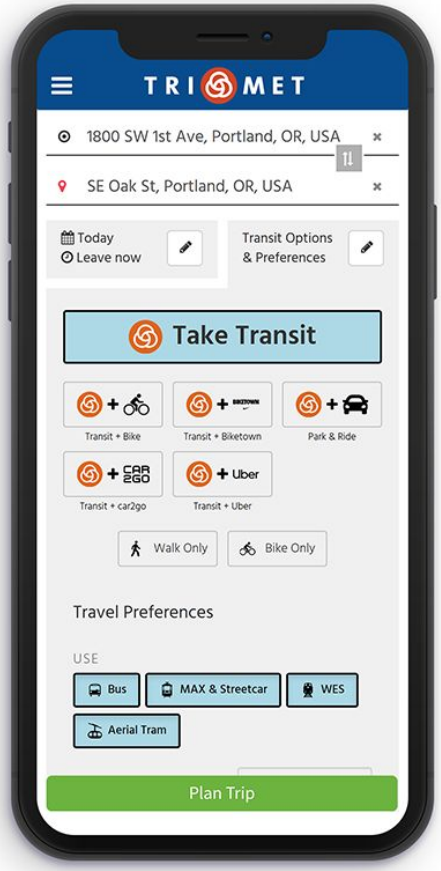
MOD
MOBILITY ON DEMAND

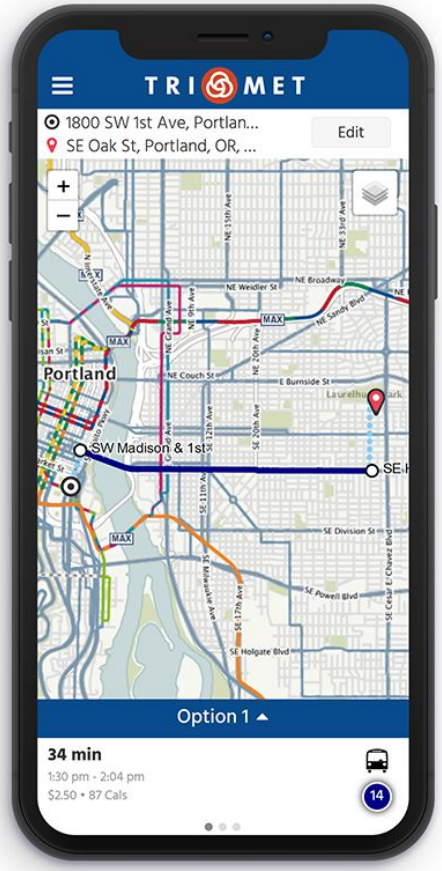

Public &
Private Service
Providers
Partnerships
Multimodal
Trip Planning
MOD Sandbox
OpenTripPlanner
Integrated
Payment
MaaS
Customer
Information
Open data,
software, standards,
real-time info,
third-party apps
MOBILITY MANAGEMENT

- POLICY & REGULATIONS
- EQUITY & ACCESSIBILITY
- INCENTIVES & INFLUENCE
- FACILITIES & ON-STREET INFRASTRUCTURE
- DISPATCH, OPERATIONS, TRAFFIC MANAGEMENT
- LAND-USE PLANNING
- MODE MANAGEMENT AND INTEGRATION

Multimodal Trip Planner
BetaPlanner.trimet.org

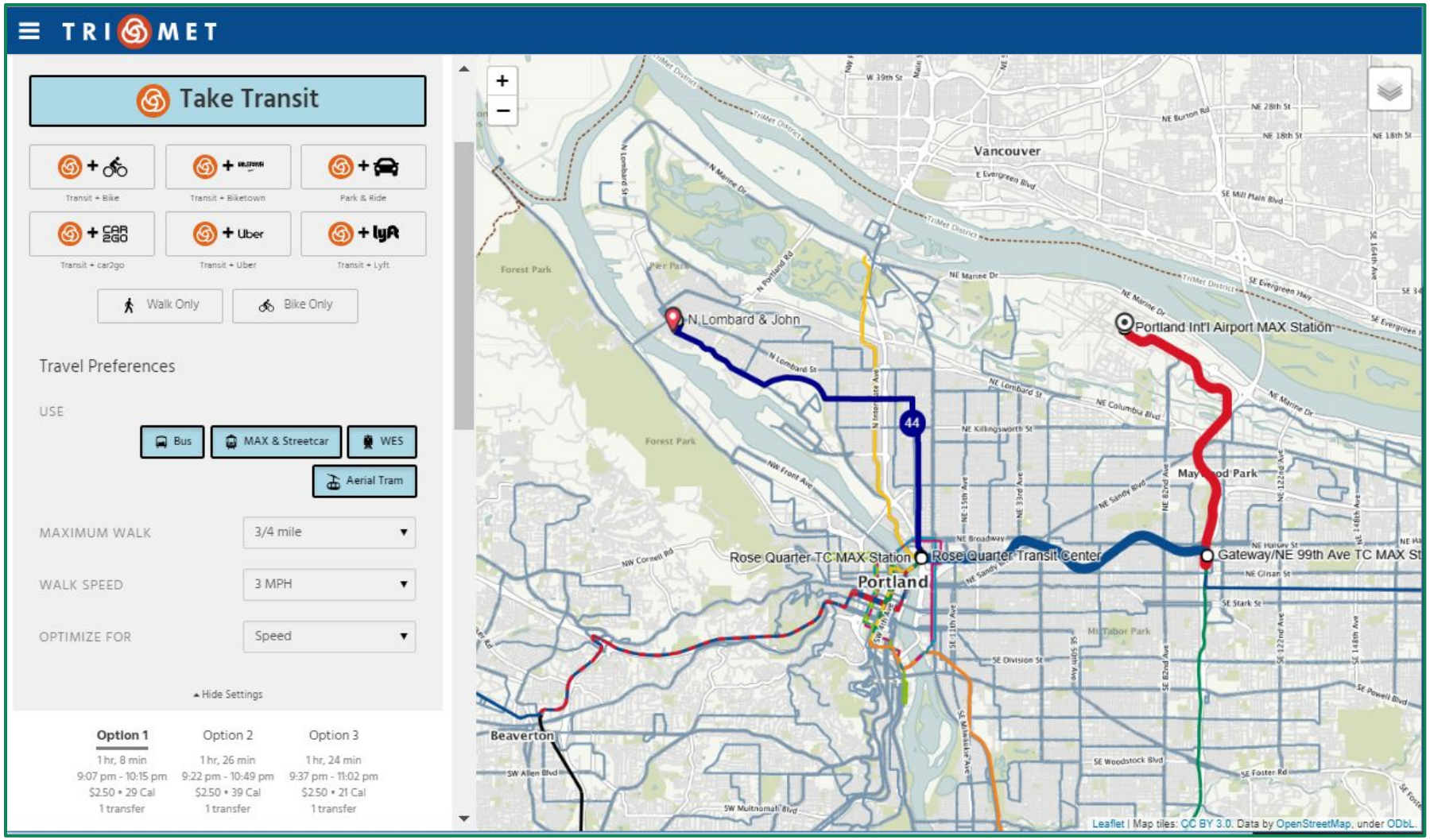






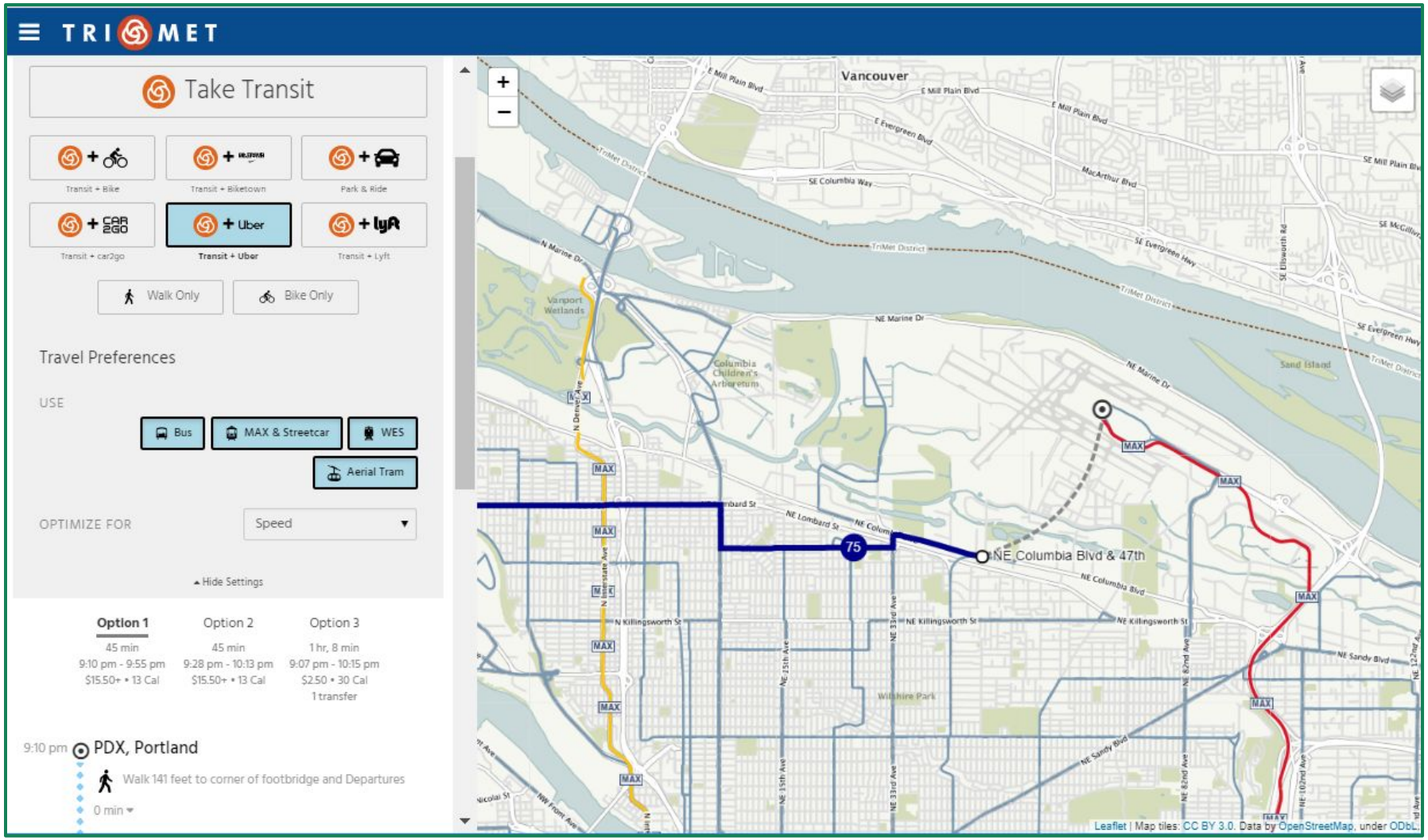
Transit Trip

Real-time Information



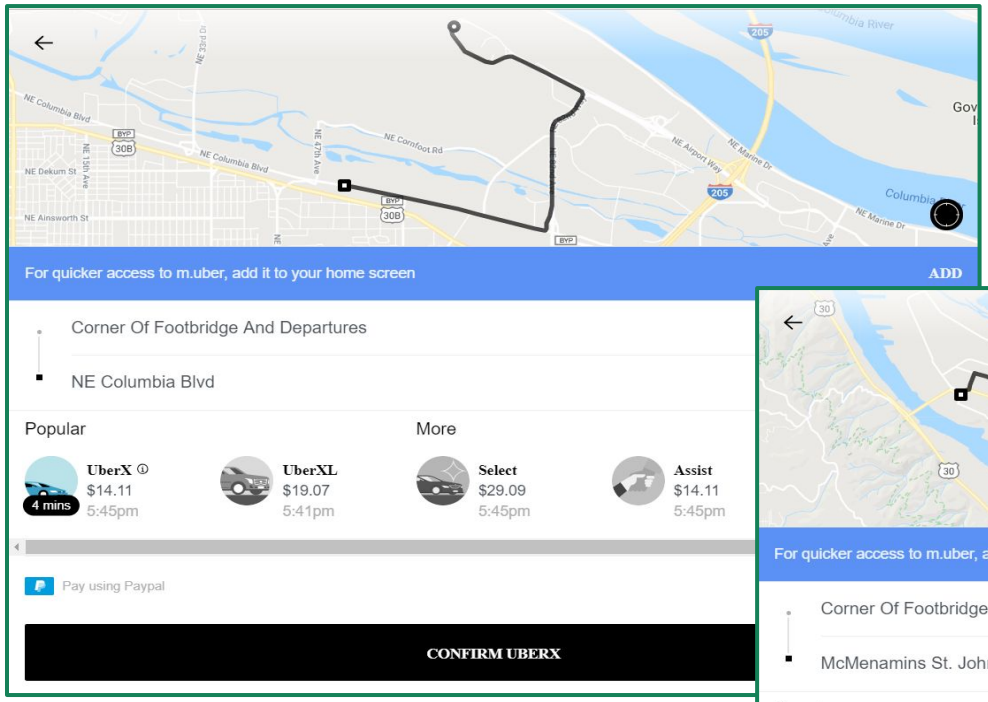
Transit + Uber Trip

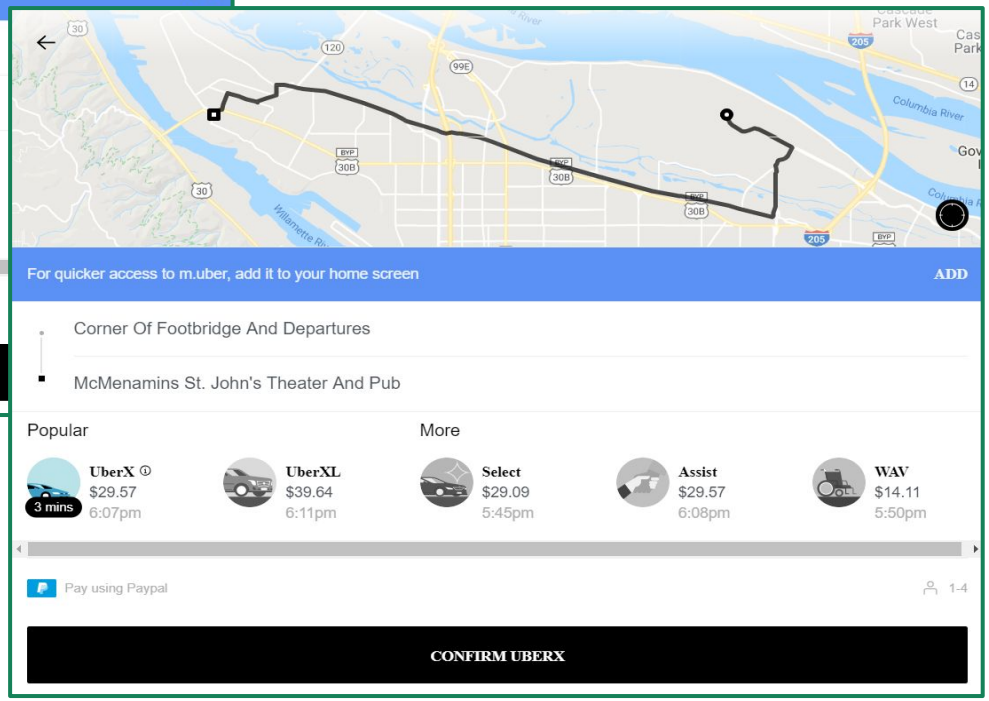
Faster than Transit Alone



Transit + Uber Trip

Cheaper than Uber Alone



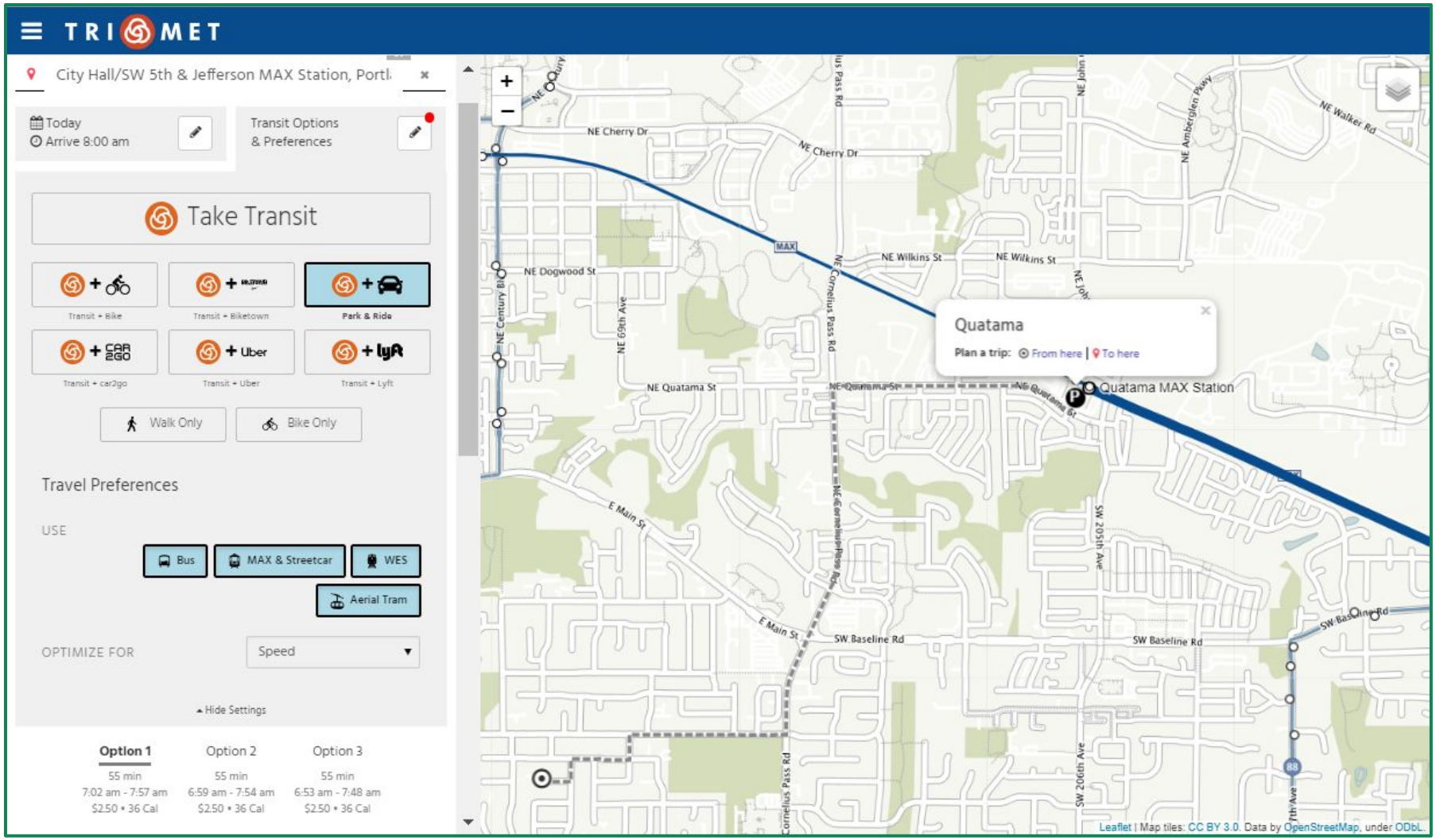


Book Ride

Book Ride feature opens Uber & Lyft apps to confirm, book and pay

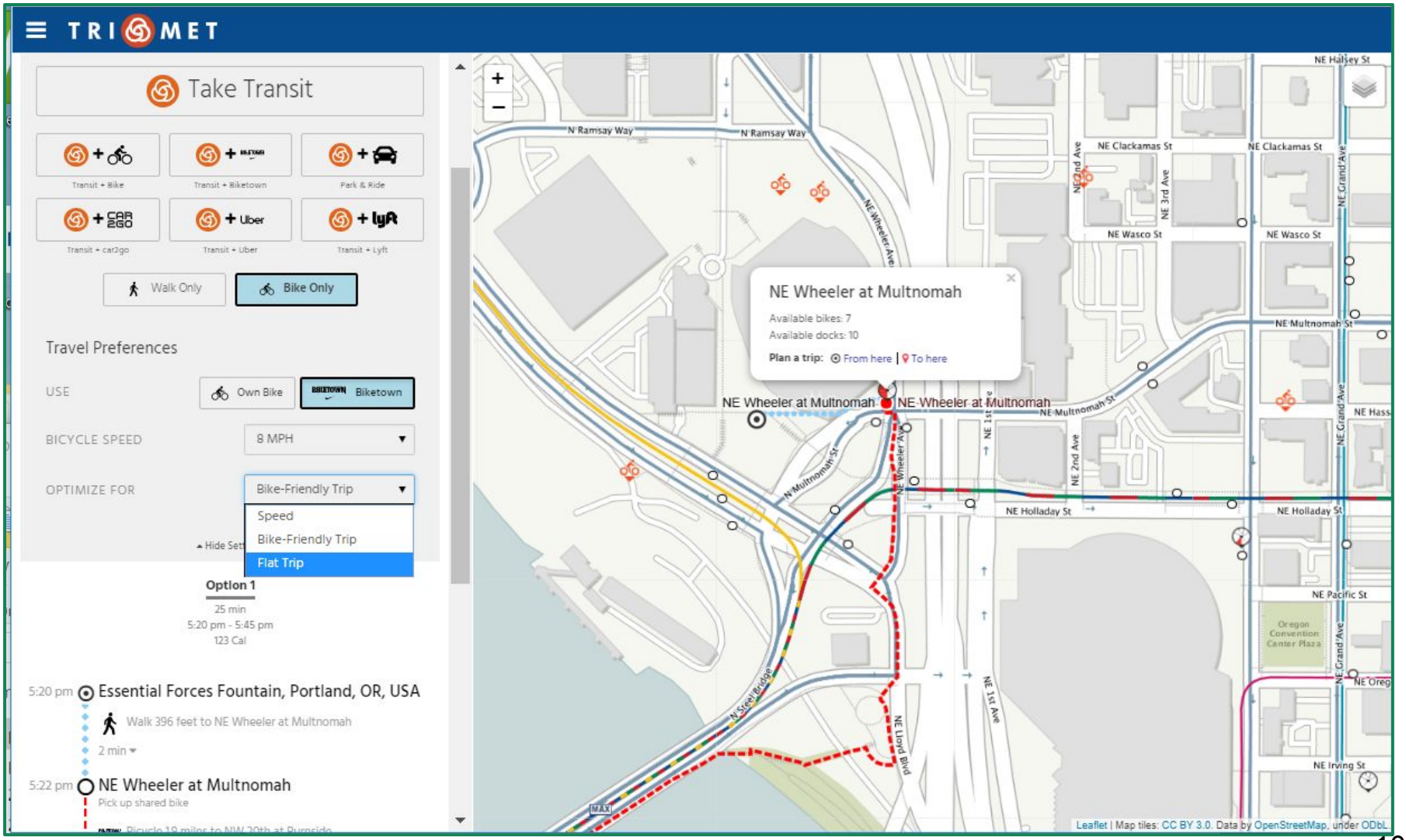
Transit + Park & Ride Trip

Home to Transit

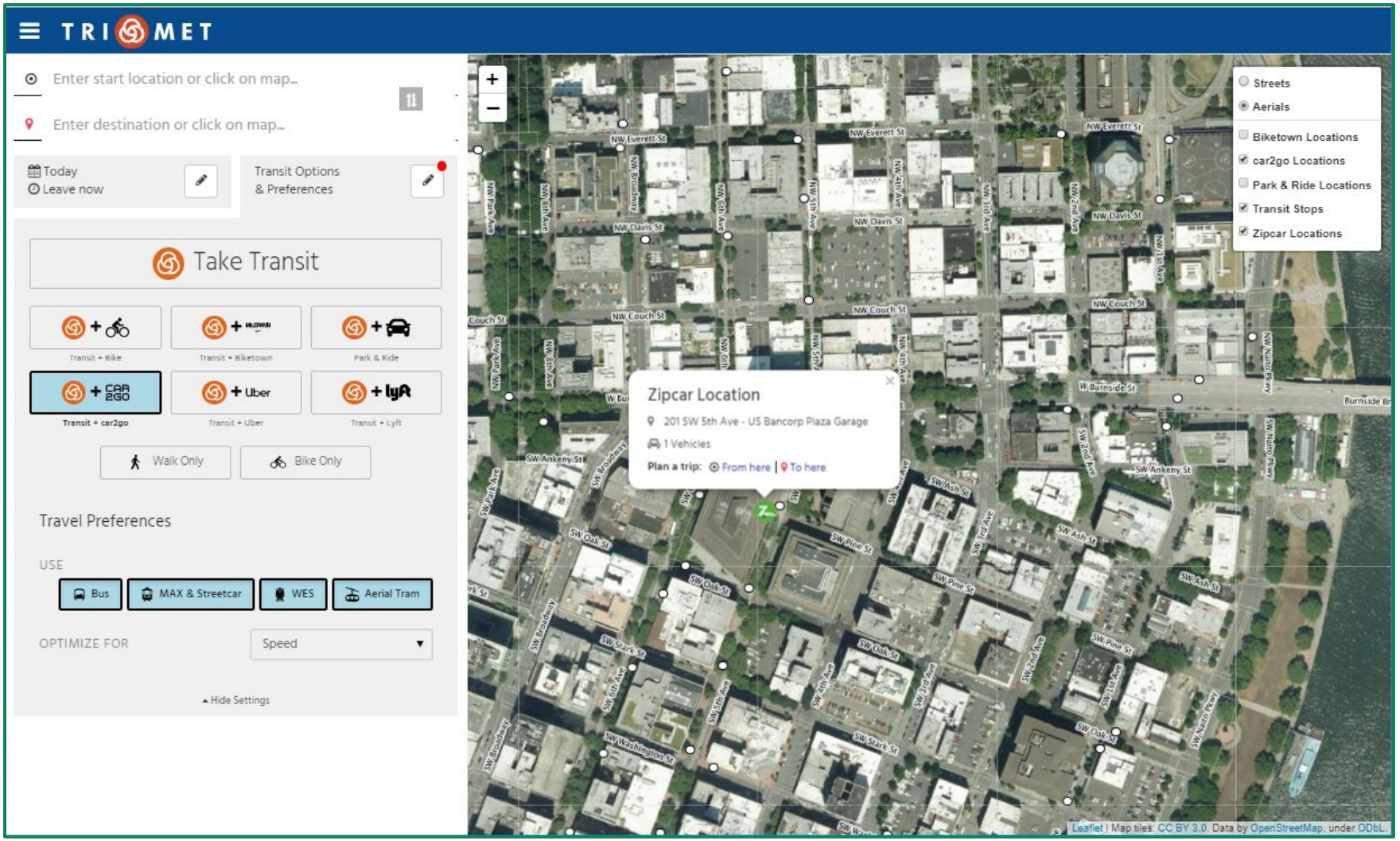


BIKETOWN

Real-time Information, Biking Preferences



Mapping Layers and Information



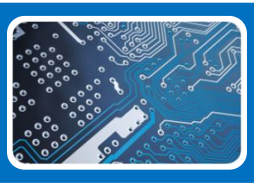
OpenTripPlanner is Multilingual

Official OTP Deployment | Unofficial OTP Deployment | OTP Prototype, Technical Previews, Demos

New York State Department of Transportation Albany, NY	Arlington County Commuter Services Arlington, VA	TriMet Portland, OR	Helsinki Regional Transport Authority Helsinki, Finland	Municipal Transport Company of Valencia S.A.U Valencia, Spain	SMTC, Grenoble Alpes métropole, l'État Français Grenoble, France
Service des Transports en Commun de l'Agglomération Rennaise (STAR) Rennes, France	Urban Transport Authority of Poznań (ZTM Poznan) Poznań, Poland	ZTM Lublin Lublin, Poland	Adelaide Metro Adelaide, Australia	ViaggiaTrento and ViaggiaRovereto Trento Province, Italy	Smart Campus Project TrentoRise, UNITN, and FBK, Italy	Ruter Oslo, Norway	USF Maps Tampa, FL
Regional Transportation District Denver, CO	Cherriots, Salem-Keizer Transit Salem, OR	SMRT Singapore	SoundTransit Seattle, WA	Vermont Agency of Transportation (V-Trans) Montpelier, VT	Singapore Nextride Singapore	BJCTA Birmingham, Alabama	Netherlands (Nationwide)	A Coruña, Spain	Athens, Greece
Budapest, Hungary	Canberra, Australia	London, UK	Marseille Métropole	Portugal	South Africa	Tampa, Florida	Central Ohio Transit Authority (COTA) Columbus, OH	Estonia	Sweden

MaaS Platform for Plan-Book-Pay

MOBILITY MANAGEMENT

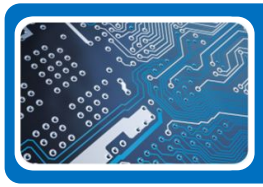


TECHNOLOGY

DATA

MOBILITY MANAGEMENT

- Frictionless Travel
- Subset of Smart City Initiative
- Policy and Regulations
- Mode Integration and Management
- Equity & Accessibility
- Paratransit
- Safety & Security
- Incentives and Influences
- Facilities and On-Street Infrastructure
- Dispatch, Operations, Traffic Management
- Landuse and Service Planning
- Private-Public Partnerships



TECHNOLOGY

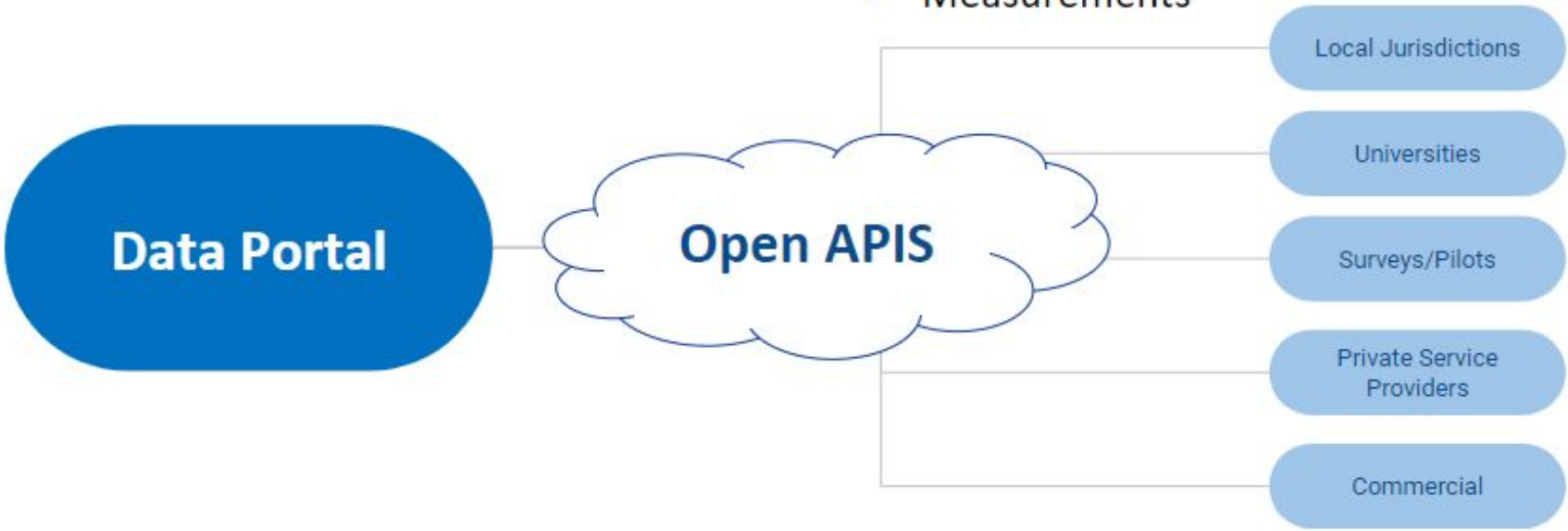
- Integrated Trip Planning, Booking, Integrated Payments
- Integrated Demand Management
- Rail Operations Optimization Technology
  - Internet of Things (IoT) and Edge Computing Technology for more efficient, effective, and reliable service. Pilot underway with Siemens.
- Nextgen TSP, budget requested for next FY
- Connected Vehicle Technology, Streetcar Pilot

DATA

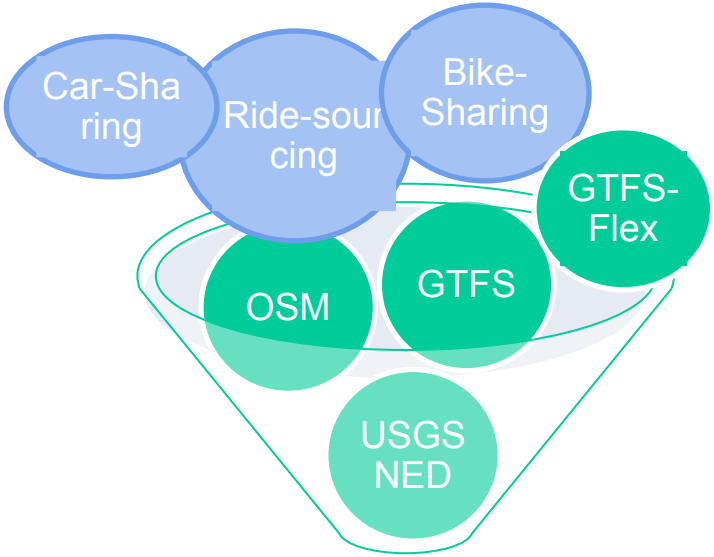
Requires: Data Standards, Policy, Open Data Licenses

Customers	Non-Riders	OTP	SOVs
Ridership	Travel Patterns	Congestion	
Satisfaction	Motivation	Service	

- Big Data & Big Analysis
- True Travel Pattern Modeling
- Third Party Data Aggregators
- Real-Time Integration
- Customer Data
- Measurements



Open APIs
Service Providers



Mobility as a Service Objectives

1. Ease pressure on the transportation network
2. Improve customer experience by presenting transportation network as integrated system
3. Limit congestion, esp. during peak travel periods
4. Reduce car ownership, usage and vehicles on roads
5. Enable better traffic and capacity management
6. Use existing infrastructure more effectively
7. Cater to all travelers (age, disadvantaged, low-income)
8. Create model that supports funding of infrastructure
9. Lessen overall environmental impact of transportation
10. Work in driver-controlled & autonomous environment