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Webinar: Assessing the Impacts of New Mobility on Cities

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Assessing the impacts of new mobility on cities

January 22, 2020| NITC WebinaR

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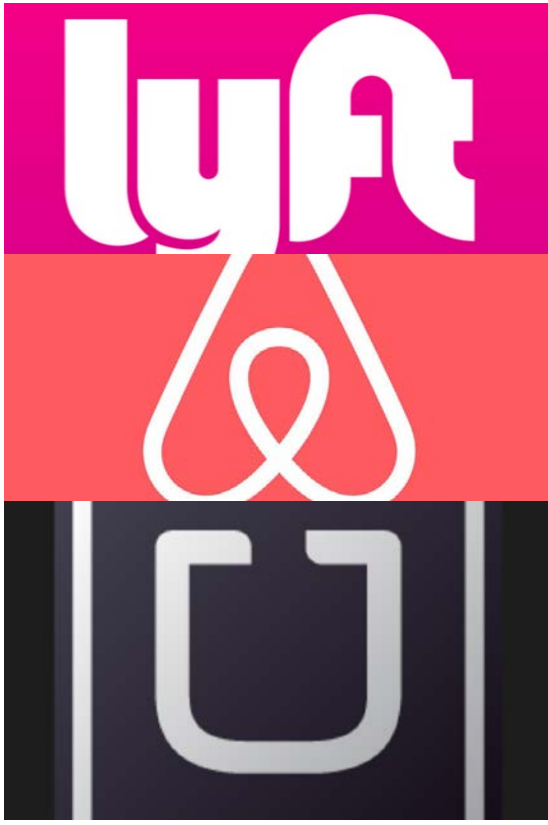
Urbanism Next Center Program Director

Google
self-driving car

amazon Prime
amazon Prime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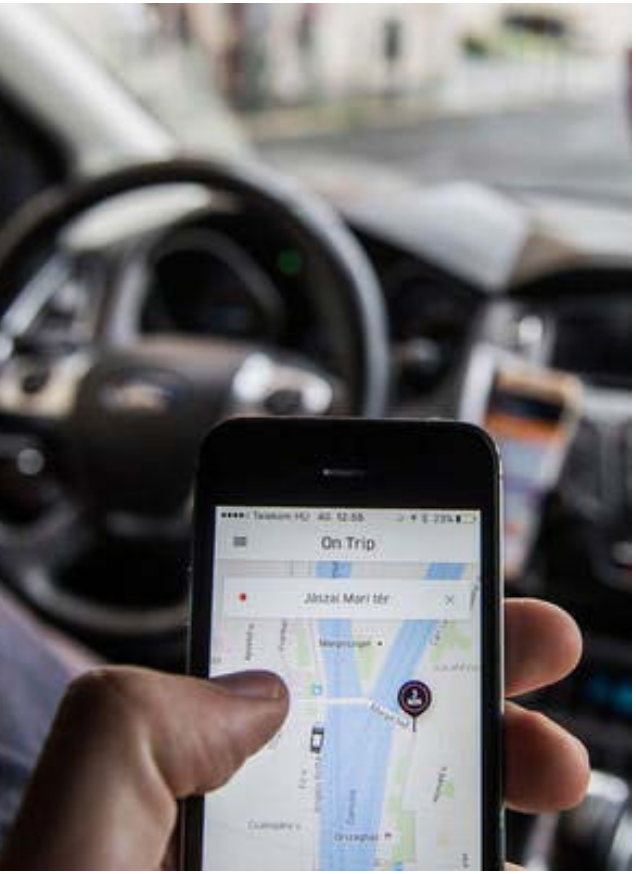
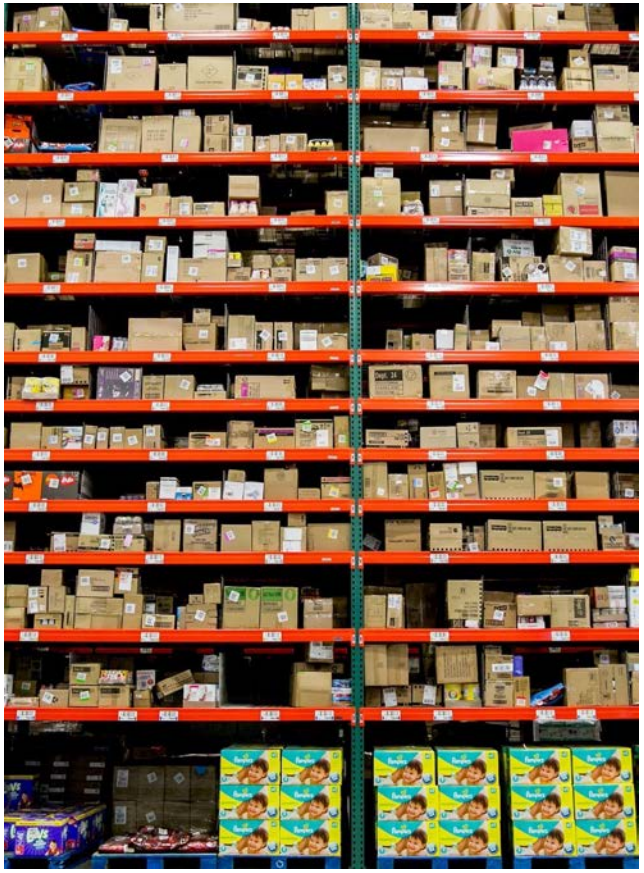


4.2 Billion Trips in 2018

38 Million Rides
*(in first year)

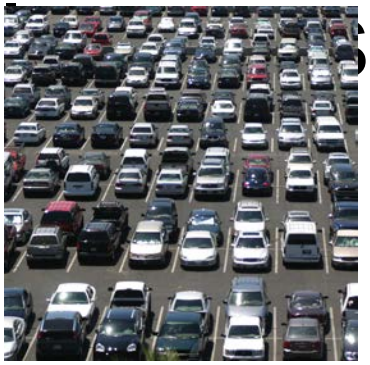
Level 4 Automation
*(ordered 82,000 vehicles)



16 Billion E-Commerce Packages Delivered in 2018

118 Packages/Household… One every three days…

Multi-level



Parking ↓

Street/curb space challenge

Congestion ↑
VMT

Delivery ↑

Walk ↓
Bike
Transit

Trends in retail

CHANGE IS HAPPENING NOW.

Approach

Workshops

- October 2018 Workshop with city staff
- February 2019 workshop with city staff
- August 2019 workshop with city staff

Policy Scan

- External
  - 10 cities with strategies
- Internal:
  - Comprehensive plans
  - Strategic plans
  - Transportation system plans
  - Climate plans
  - Economic plans

SCYP classes

- 8 classes
- 147 students
- 4 disciplines
- Various methods

SCYP Classes

Budgeting
Fall 2018
Lewis

Industrial Ecology
Fall 2018
Skov

Growth Management
Fall 2018
Lewis

Transportation
Winter 2019
Brown

Public Administration
W/S 2019
Clark

Public Management
Spring 2019
Clark

Landscape Design Studio
Spring 2019
Ribe

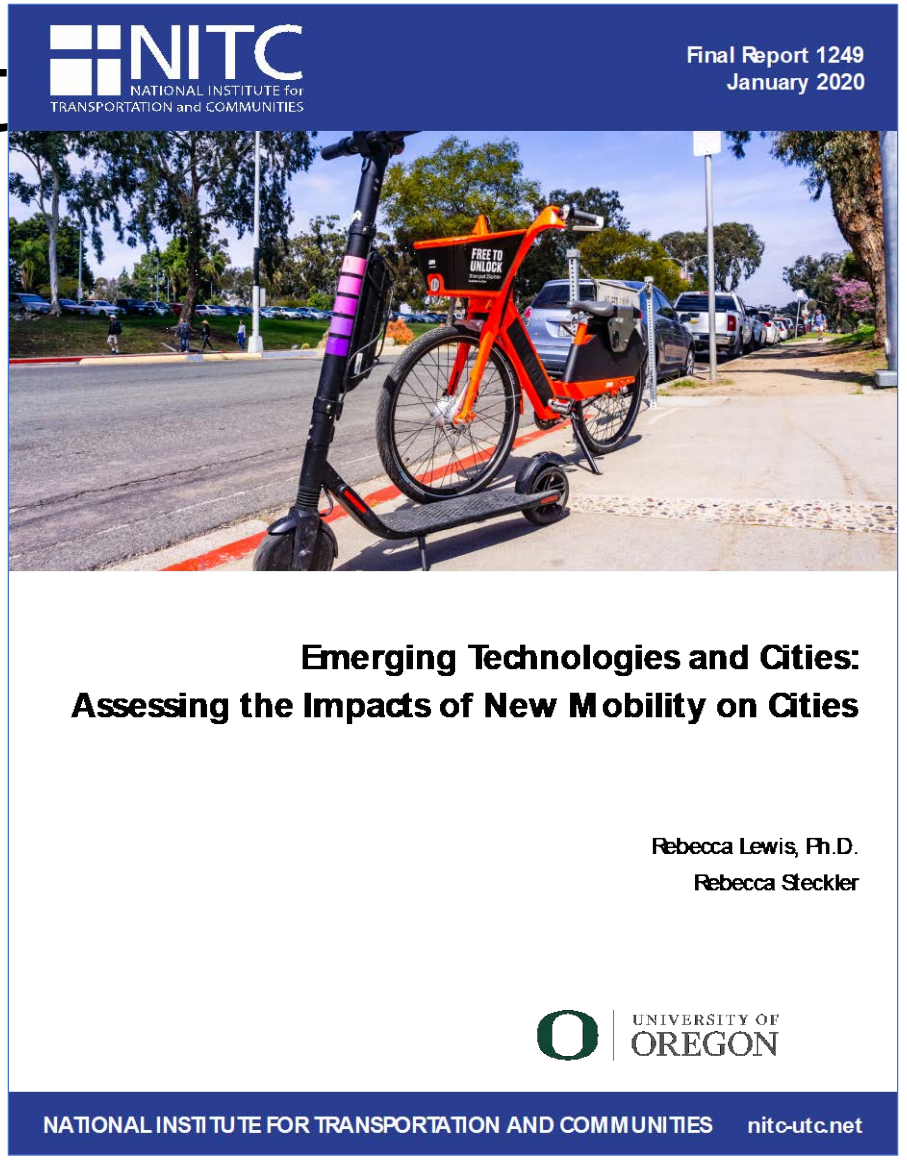
Land Use Policy
Spring 2019
Yang

SCYP Classes

Class	Focus	Method
Budgeting	Transportation revenues	Revenue analysis
Industrial Ecology	Household travel decisions	Cost analysis; benefit analysis
Growth Management	Comprehensive plans + e-commerce & AVs	Content analysis; case studies
Transportation Planning	Parking and micromobility policy	Data analysis; policy analysis
Public Administration	Data management policy	Interviews; policy analysis
Public Management	New mobility policy	Case studies; policy analysis
Design Studio	Re-design streets with new mobility	Design analysis
Land Use Policy	Accessibility of non-auto means	Case studies

Urbanism Next

- Emerging Technologies and Cities: Assessing the Impact of New Mobility on Cities Final Report (January 2020)
- Navigating New Mobility Final Report (October 2019)
- SCYP Class Reports



New mobility policy topics

1. Safety (and health)
2. Social equity
3. Active transportation
4. Congestion and vehicle miles traveled
5. Sustainability and environmental impacts
6. Design and management of the right-of-way
7. Land use and metropolitan footprint
8. Informed decision making
9. Managed innovation
10. Fiscal impacts and new mobility revenue

Policy Scan

- **City of Gresham:**
  - Transportation System Plan (2014)
  - Active Transportation Plan (2018)
  - Comprehensive Plan
- **City of Eugene:**
  - Eugene 2035 Transportation System Plan (2017)
  - Eugene Vision Zero Action Plan (2019)
  - MoveEUG: Eugene's Active Transportation Strategy (2017-2021)
  - Envision Eugene Comprehensive Plan (2017)
  - Draft Community Design Handbook (2007)
  - Community Climate and Energy Action Plan for Eugene (2010)
  - Regional Prosperity Economic Development Plan: Eugene, Springfield, Lane County (2010)

Policies applicable to New Mobility and e-commerce

- Both cities had many supportive policies
- Opportunities
  - Prioritizing active transportation/low-carbon modes
  - Efficient freight may look different in the future as more retail purchases go online.
  - Parking: Opportunities for shared parking
  - Opportunities to reduce conflicts between modes
  - Collect and report data…

Policies applicable to New Mobility and e-commerce

- Gaps
  - Update equity issues to include geographies, pricing, smart phone access, unbanked, etc.
  - GHG reduction strategies that explicitly address new mobility and e-commerce
  - Need to rethink design and allocation of uses in the ROW
  - Management of the curb in areas of highest demand
  - Compact urban form and reduction in parking requirements
  - Collect information about usage from companies
  - Regional collaboration on new mobility and e-commerce
  - Fee structure for new mobility or e-commerce services

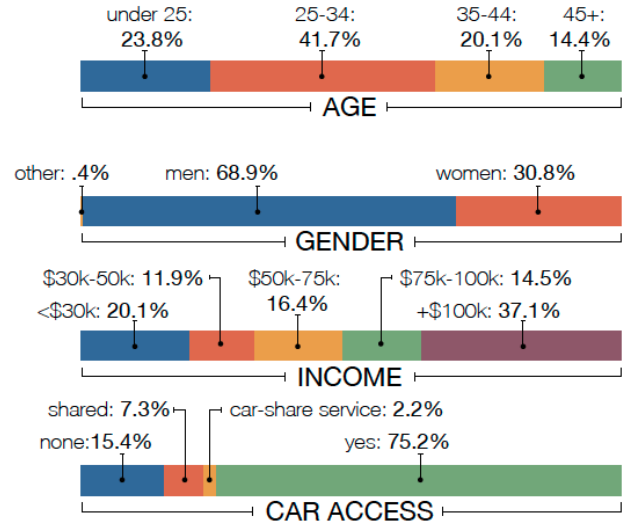
Putting it all together

Bias for known transportation modes

Putting it all together

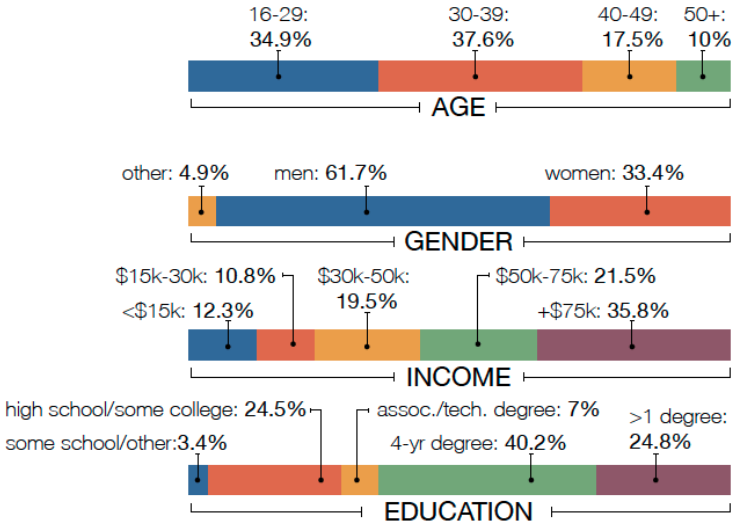
Who are new mobility services designed for?

Fig. 5: Santa Monica Ridership Demographics, 2018



Data Source: Shared Mobility Device Pilot Program User Survey Results. Santa Monica, 2019

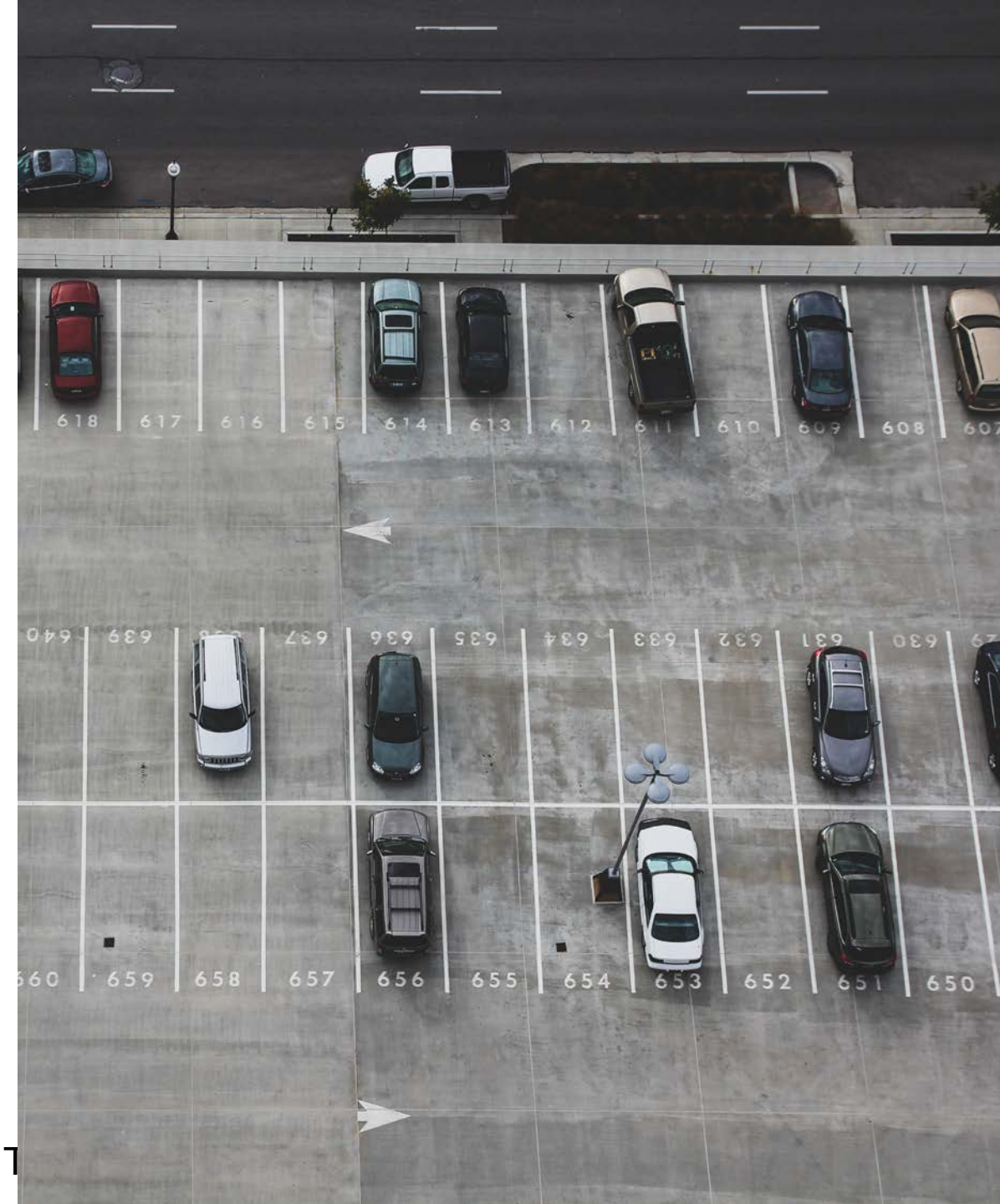
Fig. 6: Portland Ridership Demographics, 2018



Data Source: 2018 E-SCOOTER PILOT User Survey Results. PBOT, 2019

Putting it all together

Prepare for land use changes related to parking…



Putting it all together

Prepare for land use changes related to parking…

delivery…

Putting it all together

Prepare for land use changes related to parking…

delivery…

lockers…

Putting it all together

Prepare for land use changes related to parking…

delivery…

lockers…

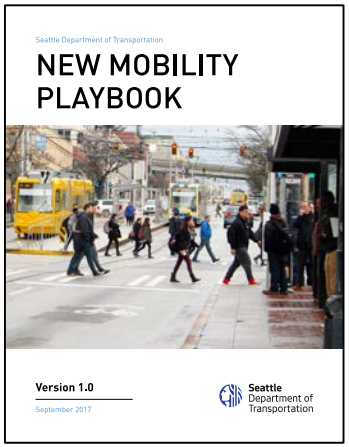
and warehousing

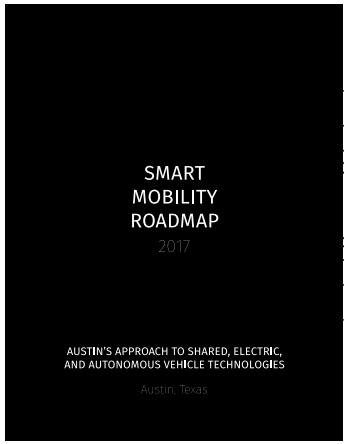
Putting it all together

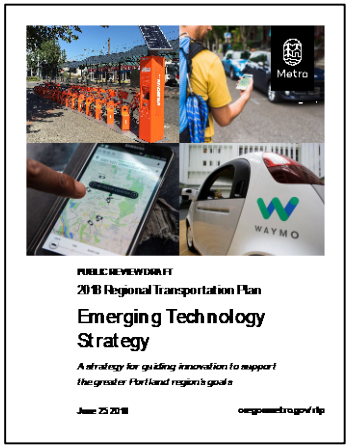
New demands for space

New Mobility Strategy

1. Start with community values and goals
2. Coordinate with regional partners
3. Develop a data privacy and management plan
4. Track research and other efforts
5. Inform decision-makers and public about impacts







Policy recommendations

Safety

Policy recommendations | Social equity

Greenlining Institute: Equitable Mobility Framework

Goal #1
Increase Access to Mobility

1. Affordability
2. Accessibility
3. Efficiency
4. Reliability
5. Safety

Goal #2
Reduce Air Pollution

6. Clean Air and Positive Health Benefits
7. Reduction in Greenhouse Gases
8. Reduction in Vehicle Miles Traveled

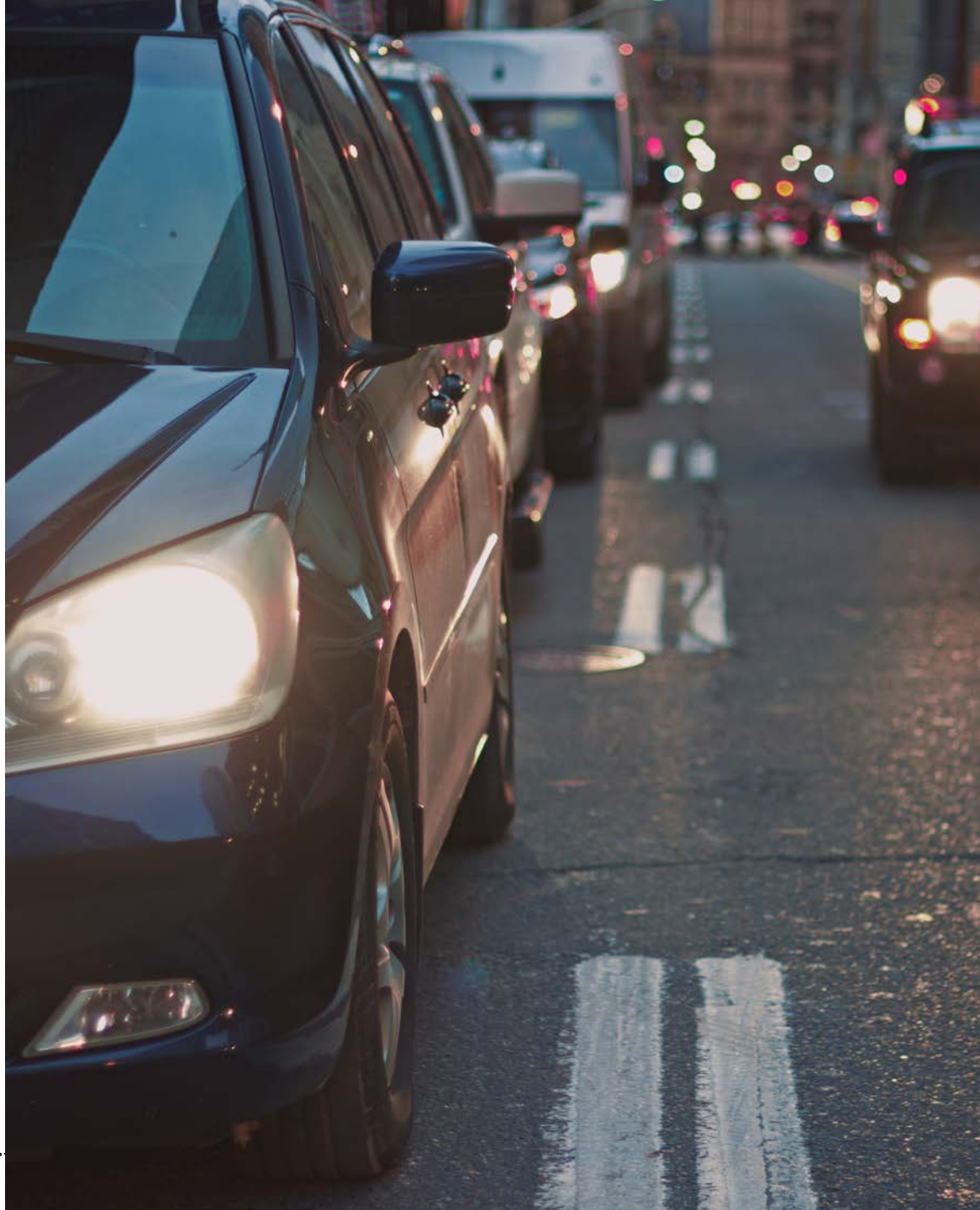
Goal #3
Enhance Economic Opportunity

9. Connectivity to Places of Employment, Education, Services, & Recreation
10. Fair Labor Practices
11. Transportation-Related Employment Opportunities
12. Inclusive Local Business & Economic Activity

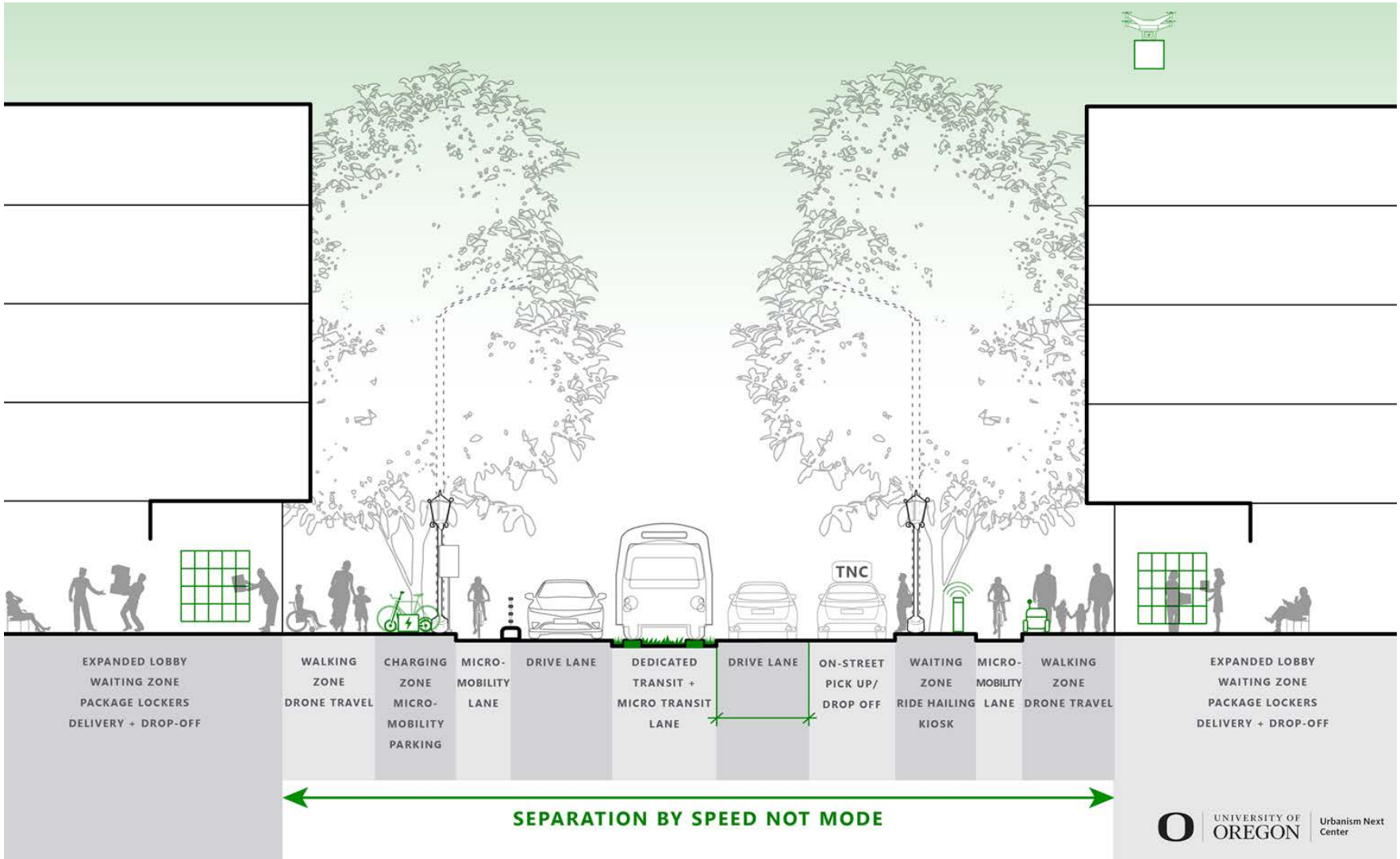
Policy recommendations | Active transportation

Policy recommendations

Congestion and VMT

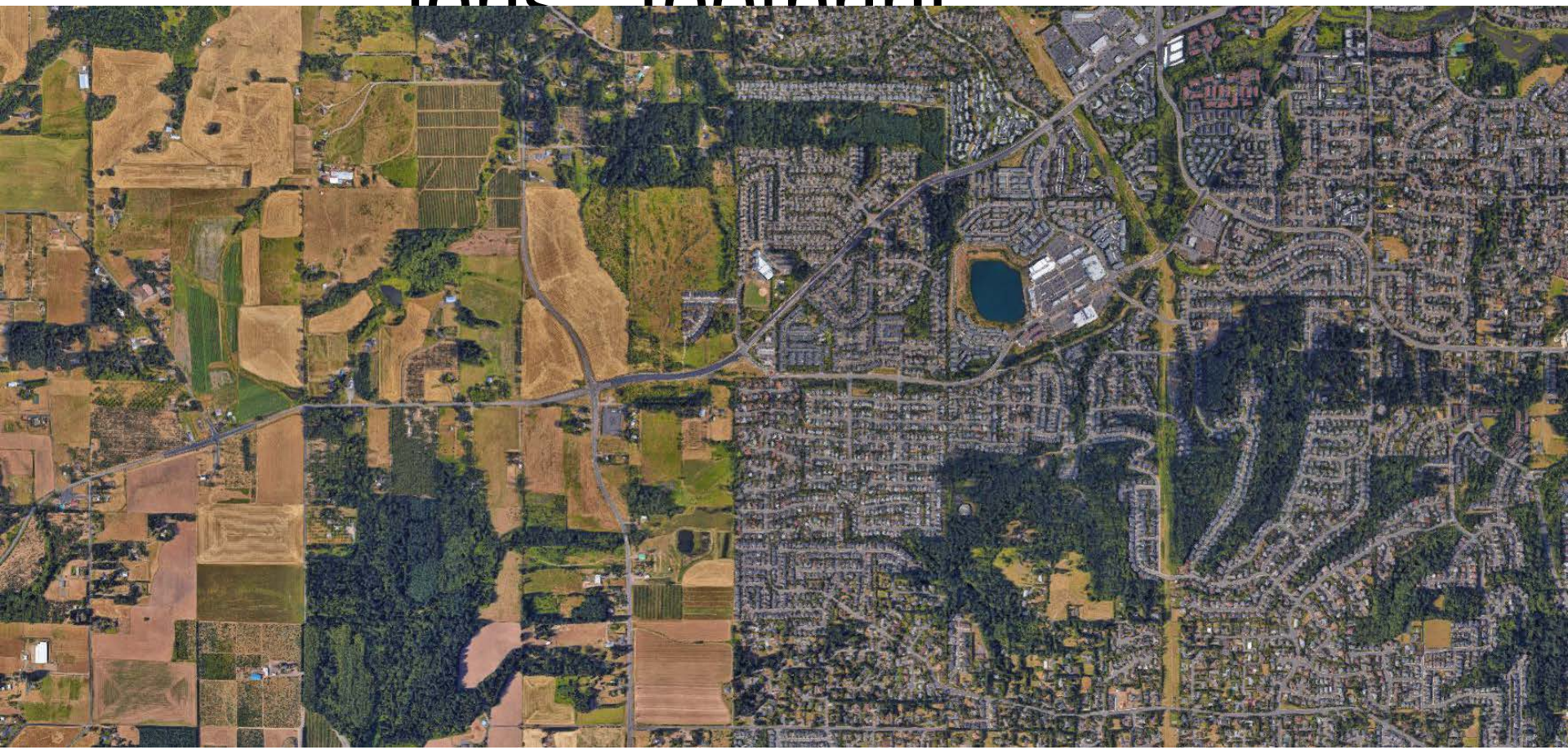


Policy recommendat | Right-of-way design and management



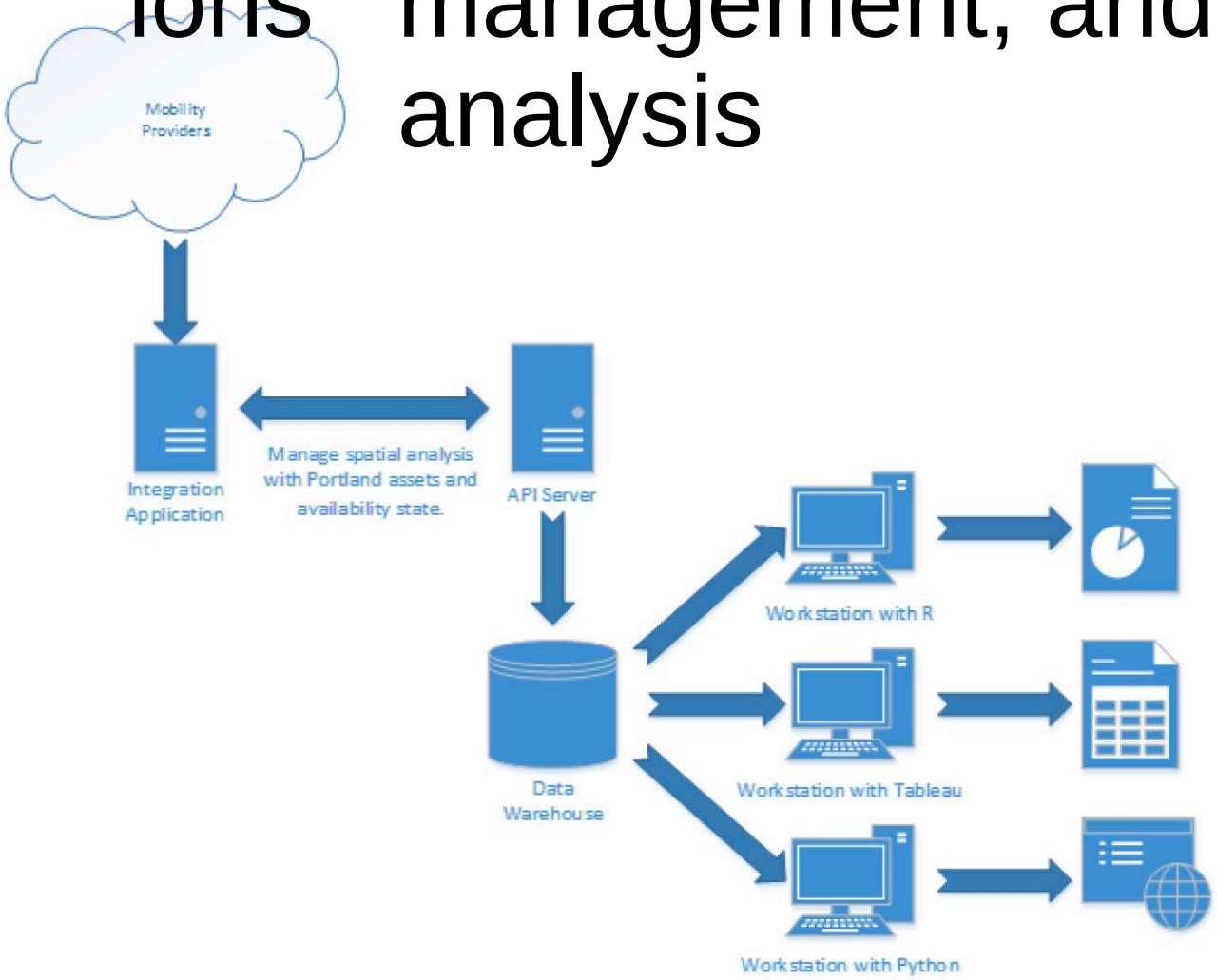
Policy recommendations

Land use and metropolitan footprint



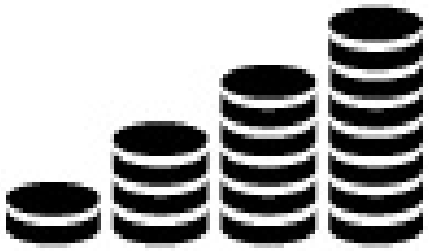
Policy recommendations

Data requirements, privacy, management, and analysis



Policy recommendations | Manage Innovation

Policy recommendations



Fiscal impacts and opportunities

1. Charge fees to manage and enforce program
2. Fees to pay for infrastructure
3. Pricing to manage congestion in districts, curb, special events
4. Price for goals (equity, GHG emissions reductions, etc.)

Key takeaways | Medium sized cities

1. Regional approach
2. “Wait and See”
3. Educating elected officials and staff
4. Values drive decisions
5. Updating regulations
6. Fiscal case
7. Access to best practices

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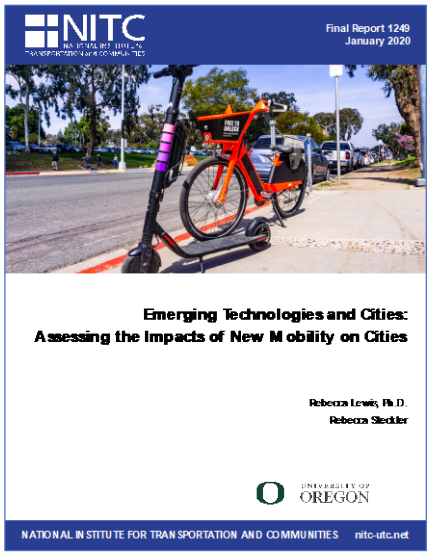

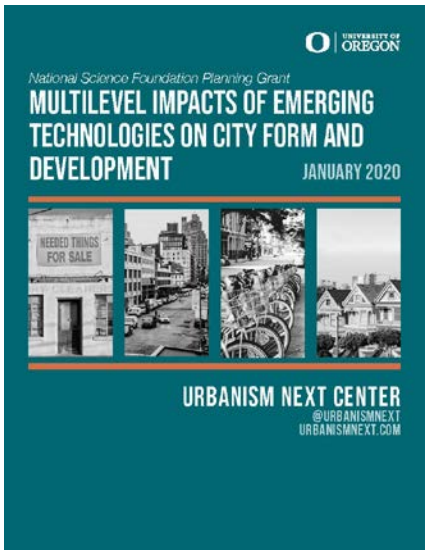

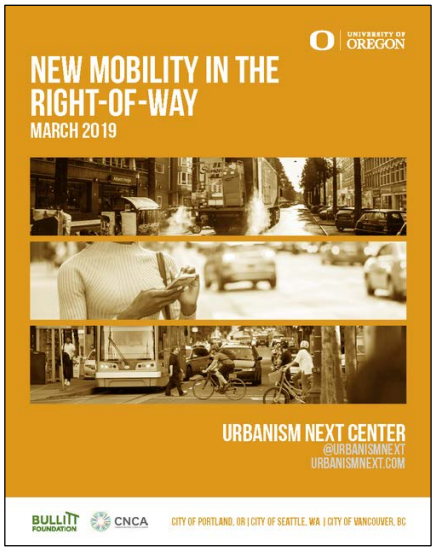

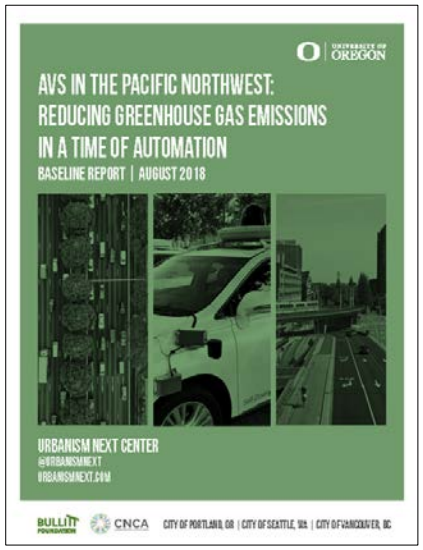

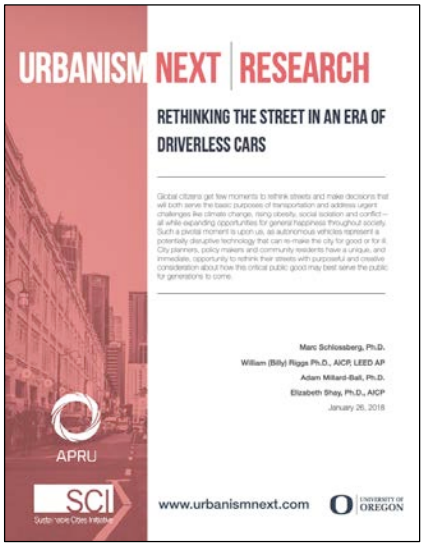

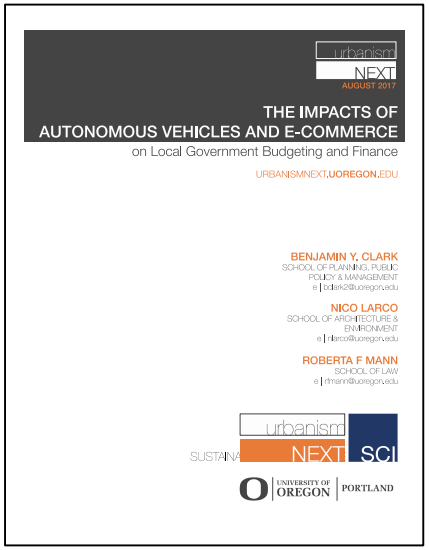

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