



NAVIGATING NEW MOBILITY

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ABOUT THIS PROJECT

- Collaboration between the University of Oregon's Sustainable Cities Institute, Urbanism Next Center and Sustainable City Year Program and the City of Gresham and the City of Eugene
- Purpose is to help the Cities understand the potential impacts of new mobility, especially autonomous vehicles, as well as the policy options to address those impacts.
- Funded by the Cities of Gresham and Eugene and by the National Institute for Transportation and Communities

SCYP CLASSES AND PRODUCTS

- Fall 2018: Budgeting Class (Lewis)
- Fall 2018: Industrial Ecology/Eugene (Skov)
- Winter 2019: Growth Management (Lewis)
- Winter 2019: Transportation (Brown)
- Winter/Spring 2019: Public Administration Capstone Class (Clark)
- Spring 2019: Introduction to AV Policy (Clark)
- Spring 2019: Advanced Design Studio/Gresham (Ribe)

URBANISM NEXT

- Navigating New Mobility Report (Mar 2019)
- Final Report (Summer 2019)



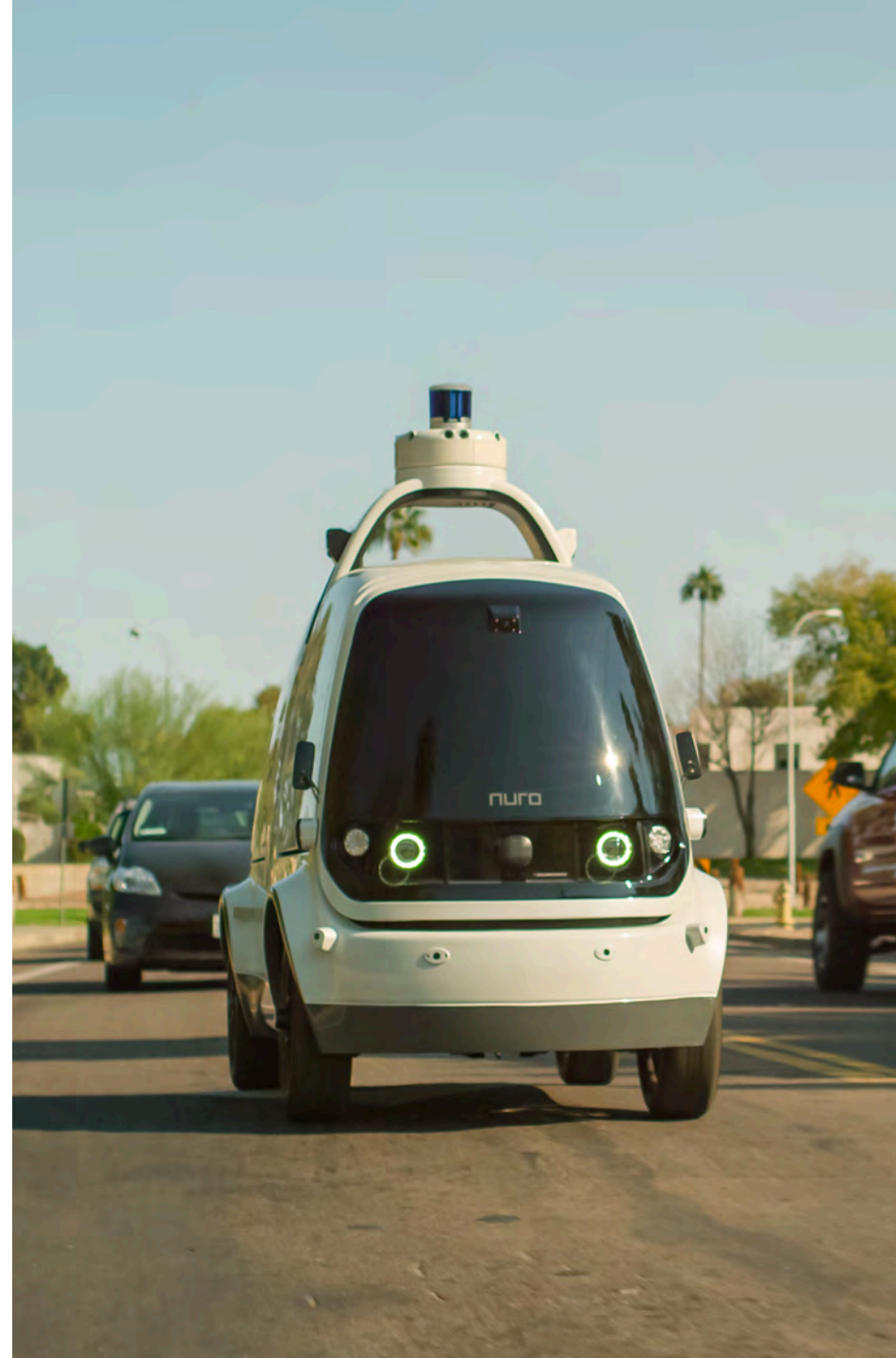
1ST ORDER IMPACTS

- Changing demand for parking
- Increased VMT
- Changes in congestion
- Shift in modes
- Increased demand for the curb
- Increased use of electric vehicles



1ST ORDER IMPACTS

- Changes in goods delivery
- Increased demand for warehousing and distribution space
- Reduction of certain types of brick and mortar stores
- Rise in experiential retail



IMPLICATIONS OF CHANGE

EQUITY



HEALTH



ENVIRONMENT



ECONOMY



GOVERNANCE



NEW MOBILITY POLICY TOPICS

1. Safety
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

1. SAFETY

- Reduce deaths and serious injuries from automobile crashes
- Reduce conflicts between modes



2. SOCIAL EQUITY

- Provide a seat at the table
- Ensure all areas are covered by the service
- Require diverse payment options
- Ensure that companies promote equitable workforce policies
- Accommodate people with specific needs

3. ACTIVE TRANSPORTATION

- Prioritization of active modes
- Coordination and support of transit



4. CONGESTION AND VEHICLE MILES TRAVELED

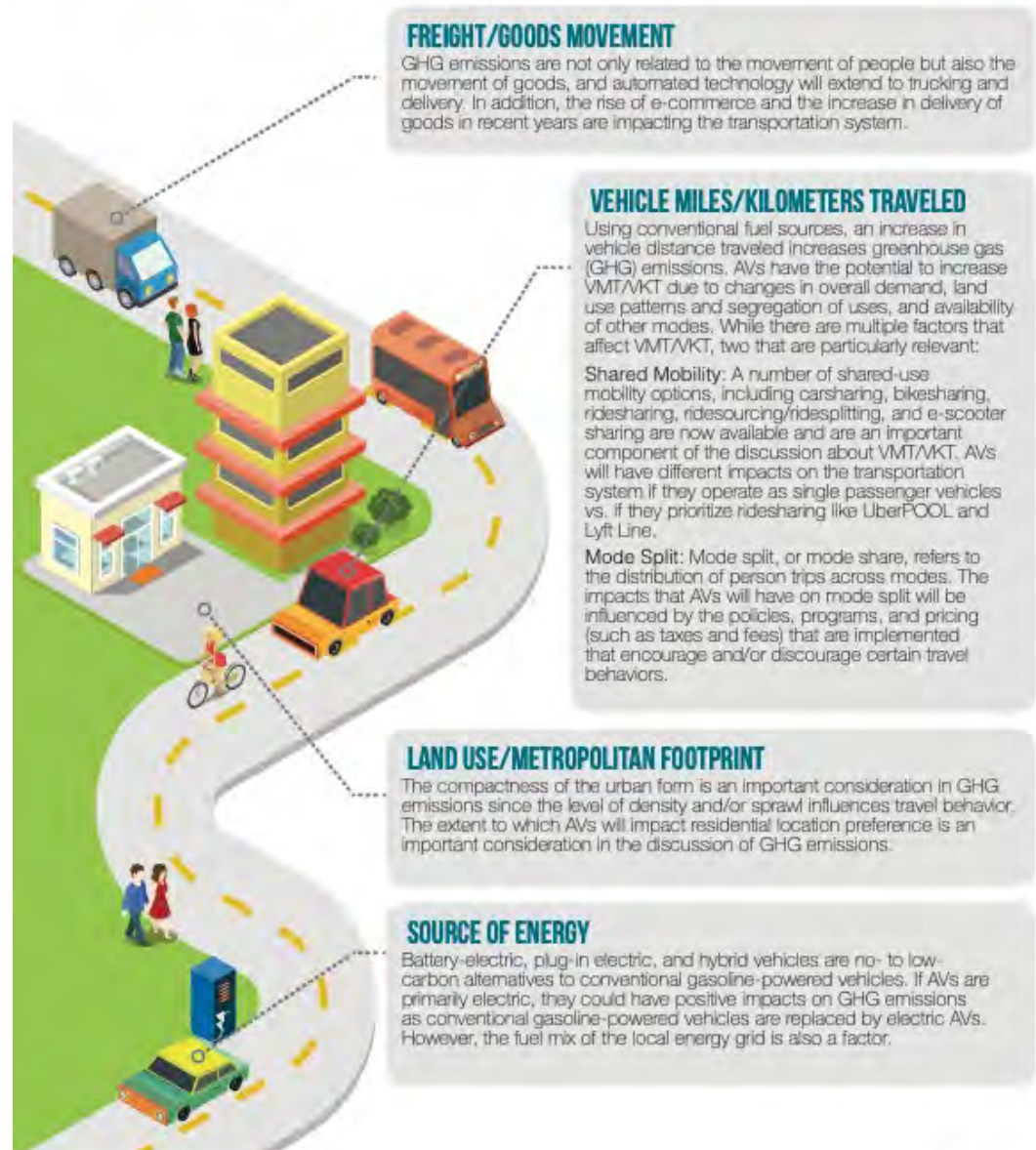
- Reduce number of vehicles at peak periods
- Reduce low occupancy vehicles
- Pay for impact (infrastructure, efficiency)
- Encourage more efficient modes (active transportation)



5. SUSTAINABILITY AND ENVIRONMENTAL IMPACTS

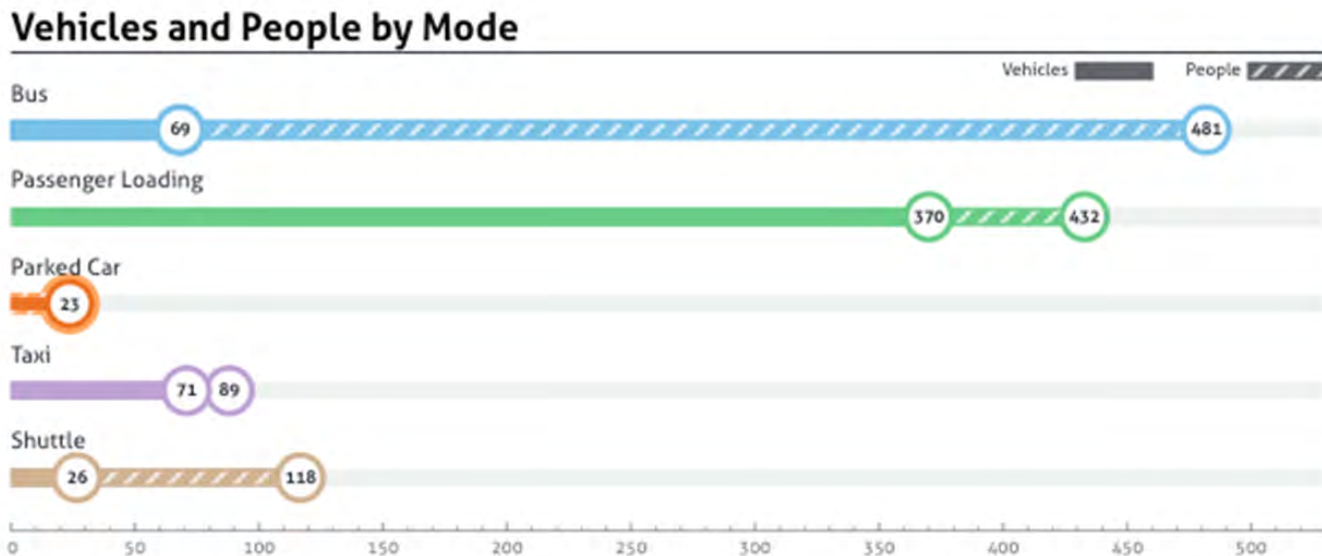
- GHG emissions
- Air quality
- Water quality/ stormwater management
- Parks and open space

AVS+GHG EMISSIONS:WHAT TO PAY ATTENTION TO



6. DESIGN AND MANAGEMENT OF THE RIGHT-OF-WAY

- Conflicts between passenger modes and goods delivery and
- Designation of space
- Pricing



Source: Fehr & Peers and Uber

6. DESIGN AND MANAGEMENT OF THE RIGHT-OF-WAY

FUNCTION	STORAGE	GREENING	ACTIVATION	ACCESS FOR COMMERCE	ACCESS FOR PEOPLE	MOBILITY
DEFINITION	Provides storage for vehicles or equipment	Enhances aesthetics and environmental health	Offers vibrant social spaces	Goods and services reach their customers and markets	People arrive at their destination, or transfer between different ways of getting around	Moves people and goods
USES	Bus layover Long-term parking Reserved spaces (e.g. for Police or other government use) Construction	Plantings -Boulevards -Street trees -Planter boxes Rain gardens and bio-swales	Food trucks Parklets and streateries Public art Street festivals	Commercial vehicle load zones Truck load zone	Bus or rail stops Bike parking Curb bulbs Passenger load zones Short-term parking Taxi zones	Sidewalks Bus or streetcar lanes Bike lanes General purpose travel lanes Right or left turn-only lanes



PEDESTRIAN REALM

Comprised of frontage, pedestrian mobility, and furniture zones between the property line and the flex or travelway zones. This space includes the sidewalk, planting areas, bus shelters, sidewalk cafes, and bike racks.

TRAVELWAY

Most often used for mobility purposes. Lanes can serve all modes or be dedicated to serve specific modes, such as a bus or bike lane.

FLEX ZONE

An essential zone for people and goods, providing separation between moving vehicles in the travelway and people in the pedestrian realm. This zone can contain multiple uses along a street - including commercial deliveries, parklets, on-street parking, and taxi zones. It can be used for mobility at specific times of the day.

7. CHANGES IN LAND USE AND METROPOLITAN FOOTPRINT

- Opportunities to increase density
- Challenges to reduce sprawl



8. MAKE INFORMED DECISIONS

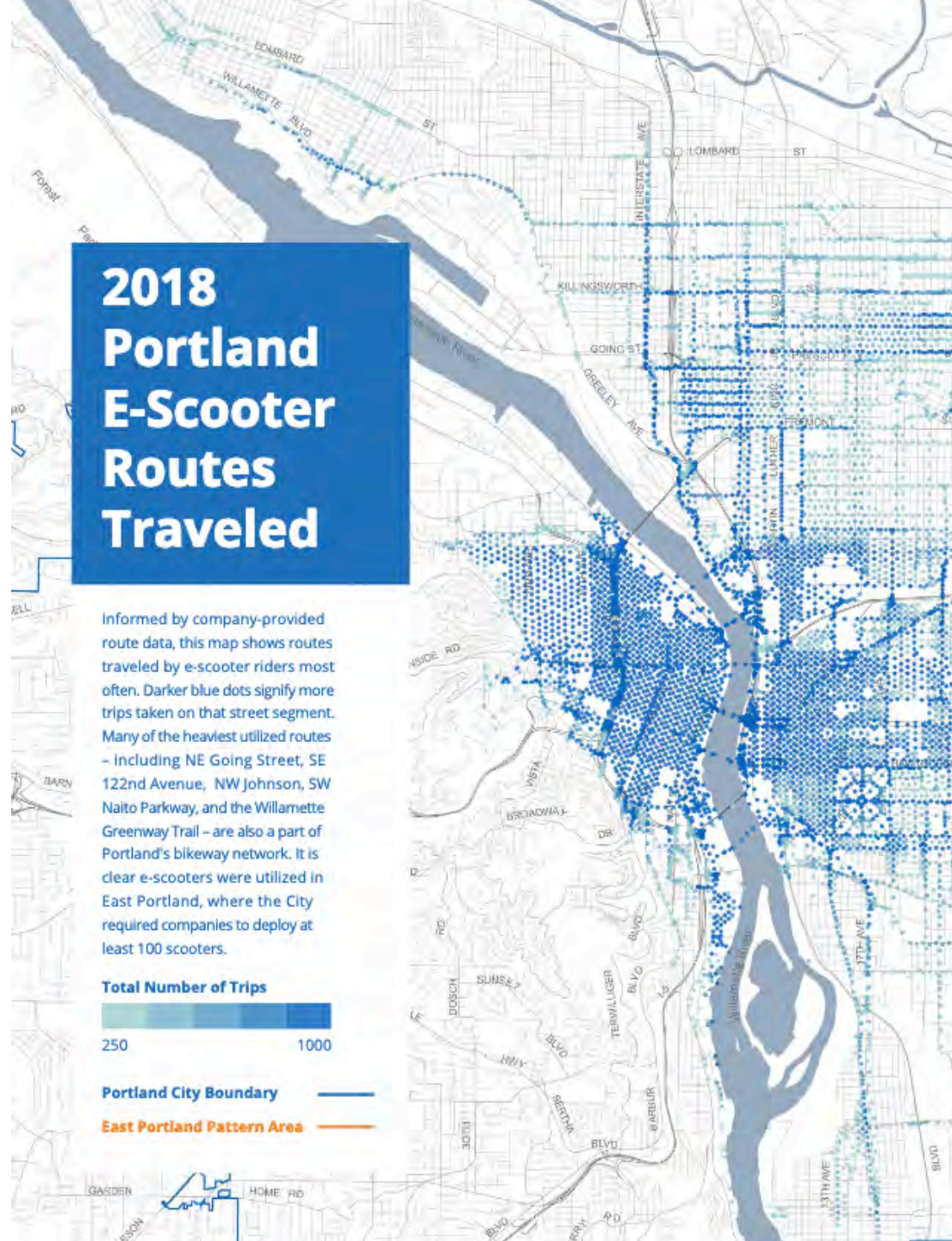
- Require data sharing
- Data privacy

Figure 2 : E-Scooter Use by Time of Day

Trip Start Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Grand Total
12 AM	1280	765	723	786	720	840	1470	6584
1 AM	989	517	475	518	545	575	1010	4629
2 AM	704	348	361	392	412	475	723	3415
3 AM	361	233	202	228	215	192	316	1747
4 AM	261	230	196	179	186	229	256	1537
5 AM	281	298	355	361	374	401	331	2401
6 AM	495	791	980	964	986	910	591	5717
7 AM	860	1839	2218	2354	2451	2187	950	12859
8 AM	1781	2942	3377	3640	3665	3430	2038	20873
9 AM	3515	3208	3408	3342	3579	3602	3730	24384
10 AM	5806	3746	3431	3552	3674	4110	5897	30216
11 AM	7935	5591	5188	5285	5611	6242	8081	43933
12 PM	9564	6958	6690	6654	7027	8058	9644	54595
1 PM	10584	7345	6614	6669	6952	8097	11120	57381
2 PM	10698	7731	7132	6796	6994	8726	12278	60355
3 PM	10754	8149	7855	7191	8204	9612	12175	63940
4 PM	10129	8677	8813	8532	8956	10125	11773	67005
5 PM	8485	8855	9235	9599	9468	9816	10165	65623
6 PM	6834	7477	7928	7923	8366	8516	8294	55338
7 PM	5303	5795	6231	6278	6709	7410	6474	44200
8 PM	4246	4526	4978	4838	5196	6330	5212	35326
9 PM	2112	2252	2439	2402	2539	3189	2579	17512
10 PM	1480	1478	1576	1510	1594	2124	1995	11257
11 PM	1007	1162	1110	1094	1299	1750	1620	9042
TOTAL	105464	90913	91515	91087	95722	106946	118722	700369

2018 Portland E-Scooter Routes Traveled

Informed by company-provided route data, this map shows routes traveled by e-scooter riders most often. Darker blue dots signify more trips taken on that street segment. Many of the heaviest utilized routes – including NE Going Street, SE 122nd Avenue, NW Johnson, SW Naito Parkway, and the Willamette Greenway Trail – are also a part of Portland's bikeway network. It is clear e-scooters were utilized in East Portland, where the City required companies to deploy at least 100 scooters.



9. MANAGE INNOVATION

- Regional/Local partnerships
- Public private partnerships
- Keeping up with technology – adaptive regulations
- Pilot projects
- City capacity to analyze data
- Real time management

10. FISCAL IMPACTS

- Revenue impacts
- Fiscal policies – infrastructure
- Fiscal policies – transportation system and incentivizing behavior
- Other fiscal issues

QUESTIONS AND DISCUSSION



Source: ITF