Future Directions for Multimodal Research and Practice

TRB Standing Committee on Transportation Issues in Major Cities
Multimodal Transportation Planning Best Practices

Kristine M. Williams, AICP
Program Director, Planning & Corridor Management Center for Urban Transportation Research
Research and Training Objectives

Model Multimodal Transportation Element:

- **DEFINE** requirements of Florida’s 2011 Community Planning Act.
- **DOCUMENT** professionally accepted multimodal planning best practices.
- **CLARIFY** how to coordinate the local transportation element with other elements and other plans.
“The transportation element shall provide for a safe, convenient multimodal transportation system, – coordinated with the future land use map or map series, and designed to support all elements of the comprehensive plan.”

- §163.3177(6)(b) F.S.
Residents call for road widening

Road widened

No congestion on roadway

Land further out becomes accessible

THE SPRAWL CYCLE

More residents and shoppers now traveling further

Subdivisions and businesses develop and people move out to larger, cheaper homes

Land prices rise and farmers request rezoning

Under development pressure, land is rezoned

TRAFFIC ENGINEERING

Traffic engineering

Land use planning

Congestion develops
“On urban commuter expressways, peak-hour traffic congestion rises to meet maximum capacity.”

Major Roadway Projects Needed

LANEAGE
- 2 Lanes
- 3 Lanes
- 4 Lanes
- 6 Lanes
- 8 Lanes
- 10+ Lanes
- 2 Lanes Enhanced
- 4 Lanes Enhanced
- 6 Lanes Enhanced
- 2 Lane Frontage Roads
- Gandy Blvd (PCA)

Cost estimate: $15 billion

Source: Hillsborough County MPO
This is not the future we want...

Still-Congested Roads 2035

Volume to Capacity Ratio

- 0.00 - 0.90
- 0.91 - 1.00
- 1.01 - 1.20
- 1.21 - 1.50
- > 1.50

Source: Hillsborough County MPO
Think Mobility

– Look beyond roadway level of service
– Higher priority on managing the system
– Lower priority on preventing future congestion

Photos courtesy of seefloridago.com
In Urban Cores and Centers

- More emphasis:
  - Expanding and reinforcing mode choice, improving walkability, and promoting a diverse mix of land uses in close proximity

- Less emphasis:
  - Relieving auto congestion through roadway expansion projects
Target walkability investments

- Focus on those areas with the greatest potential and prioritize the pedestrian in those areas
- Improve other areas as opportunities arise
Make transit viable

• Focus premium transit service on key corridors
• Density, TOD
• Link walkable centers
Leverage bicycling as transportation

- Prioritize links to key destinations and maintain continuity
- Biking to buses is an important part of a multimodal trip
- Provide supporting facilities, including parking
Identify Priority Routes by Mode

Credit: ITE
Integrate Land Use

Define place types and general land use vision

Clarify what is to be considered “compact urban” versus suburban and rural

Locate mixed-use “town centers” along rapid transit lines
Integrate Land Use

- Include a map series relating the transportation and land use elements
Land Use & Accessibility
Best Practices

• Promote a mix of land uses in centers

• Focus major generators:
  • in urban cores
  • in district centers
  • near major public transportation stops

• Locate day-to-day facilities in local centers so they are accessible by walking and cycling

• Accommodate housing in existing urban areas

• Put retail and entertainment in the urban core first, then edge of core, then fringe
Enhance the Multimodal Environment
Set Future Q/LOS Standards, Performance Measures, and Benchmarks

- Roadway level of service
- Public transportation quality of service
- Bicycle and pedestrian quality of service or performance standards
Prioritize Projects and Strategies

- Level of Service
- Pedestrian Needs
- Community Resource Connectivity
- Transit Connectivity

- Bicycle Needs
- Safety
- Public Support
- Supports Local Plans

Identified Top Ranked City Projects

Source: City of Largo Multimodal Plan
For Further Information

• Multimodal Best Practices and Model Element:

• Mobility Review Guide and Checklist:
Thank you!

Kristine Williams
kwilliams@cutr.usf.edu
813-974-9807
Moving from Policy to Pavement
Institutionalizing Complete Streets

Transportation Research Board
Darby Watson
December 9, 2015
Policies are in place
Policies are in place - practices are not
Context is everything – and...
Think through construction
Review ALL data
Field work
Field work
Field work
Robust evaluation

**Speed**

Speed data was recorded between 6th Avenue W and 3rd Avenue W in June, 2007. Prior to the project, the 85th-percentile speeds in both directions exceeded the speed limit: 40.6 mph westbound and 44.0 mph eastbound. Approximately 90 percent of drivers exceeded the speed limit. Speed data was collected at the same location after rechannelization in February, 2011. The 85th percentile declined to 33.1 mph westbound and 33.3 eastbound. After rechannelization, the percent of speeders declined by two-thirds and the percent of drivers exceeding the speed limit by 10 or more miles per hour dropped by more than 90 percent.

<table>
<thead>
<tr>
<th>85th Percentile Speed between 3rd Avenue W and 6th Avenue W</th>
<th>Speed in miles per hour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
</tr>
<tr>
<td>Westbound</td>
<td>40.6</td>
</tr>
<tr>
<td>Eastbound</td>
<td>44.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Speeders</th>
<th>Percent driving over the speed limit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
</tr>
<tr>
<td>Westbound</td>
<td>88%</td>
</tr>
<tr>
<td>Eastbound</td>
<td>91%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top End Speeders</th>
<th>Percent 10+ mph over the speed limit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
</tr>
<tr>
<td>Westbound</td>
<td>17%</td>
</tr>
<tr>
<td>Eastbound</td>
<td>38%</td>
</tr>
</tbody>
</table>
Great plans and policies are flexible
Challenges: internal resistance
Challenges: legacy silos
Challenges: legacy silos

The CIP is comprised of 16 Capital Programs as listed in the table below. These programs are designed to ensure investments in line with the agency’s strategic goals and priorities.

<table>
<thead>
<tr>
<th>CAPITAL PROGRAM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility</td>
<td>Plan, design and construct improvements to improve the accessibility of the transportation system in San Francisco</td>
</tr>
<tr>
<td>Bicycle</td>
<td>Plan, design and construct bicycle facilities including bike lanes and parking, bike sharing, bike boulevards and cycletracks</td>
</tr>
<tr>
<td>Central Subway</td>
<td>Plan, design, engineer and construct the Muni Metro T Third line Phase II extension to Chinatown</td>
</tr>
<tr>
<td>Communications/IT Infrastructure</td>
<td>Plan, design and implement technology infrastructure to improve efficiency and effectiveness and provide a better customer experience</td>
</tr>
<tr>
<td>Facility</td>
<td>Acquire, develop and/or rehabilitate transit station areas and maintenance facilities used for transit, traffic, and parking operations</td>
</tr>
<tr>
<td>Fleet</td>
<td>Purchase buses, trains and support vehicles for transit and sustainable street needs</td>
</tr>
<tr>
<td>Parking</td>
<td>Plan, design, rehabilitate and construct public parking facilities or street infrastructure related to public parking</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>Plan, design, and construct street redesign projects to improve the safety of the pedestrian environment</td>
</tr>
<tr>
<td>Safety</td>
<td>Plan, design, and implement infrastructure improvements to maintain and enhance the safety of SFMTA daily operations and workplace safety</td>
</tr>
<tr>
<td>School</td>
<td>Plan, design, and engineer improvements to streets in school zones to enable safe travel to school for children who walk, bike and take transit</td>
</tr>
<tr>
<td>Security</td>
<td>Plan, design, construct and/or implement systems to improve the security of the transportation system</td>
</tr>
<tr>
<td>Taxi</td>
<td>Plan, design, construct and implement improvements to the taxi system that provide a better customer experience</td>
</tr>
<tr>
<td>Traffic Calming</td>
<td>Plan, design, and construct street redesign projects to address traffic problems and improve safety for all customers</td>
</tr>
<tr>
<td>Traffic / Signals</td>
<td>Plan, design, engineer and construct infrastructure and traffic signals to decrease transit travel time and improve mobility and safety of San Francisco roadways</td>
</tr>
<tr>
<td>Transit Fixed Guideways</td>
<td>Plan, design, and construct transit improvements to rail track, overhead wires and train control technology</td>
</tr>
</tbody>
</table>
Process focused

[Diagram of the SDOT Permitting Process]

- **Presubmittal**
  - Preliminary Assessment (PA) by City Departments
  - PA Form Submitted
  - PA Report Issued
  - Pre-submittal Schedule
  - Pre-submittal Conf.

- **Master Use Permit (MUP)**
  - EDG Submittal
  - EDG Notice
  - EDG Meeting
  - EDG Report
  - MUP Submittal
  - Notice of Application
  - Initial Plan Review
  - Corrected Plan Review
  - Notice of Meeting
  - Recommendation Meeting
  - Director’s Recommendation Report
  - Publish MUP Decision
  - MUP Issued

- **0-30% SIP Development**
  - Meeting Outcomes:
    - Typical layouts and cross sections acceptable to SDOT
    - Location of project elements and clearance requirements
    - DPD Zoning does not approve until 30%

- **30-60% SIP Development**
  - Meeting Outcomes:
    - Identify all required infrastructure
    - Conceptual layout of project elements
    - SDOT conceptual approval for MUP

- **60%+ SIP Development**
  - Meeting Outcomes:
    - 60% plan title block with signed approval from impacted review groups
    - SDOT approval for construction permit intake

**Legend**:
- SDOT participation required
- IDT (early phase development) or EDG (streamlined track)
- Optional / Proactive participation by SDOT (standard track) or IDT (streamlined track)
- BP - Building Permit
- CMP - Construction Management Plan
- EDG - Early Design Guidance
- IDT - Interdisciplinary Team
- MUP - Master Use Permit
- PA - Preliminary Assessment
- SIP - Street Improvement Plan
Questions?

darby.watson@seattle.gov | (206) 684-7609

www.seattle.gov/transportation
THE ROLL OF SOCIAL MEDIA IN LARGE SCALE MULTI-MODAL SYSTEMS
Social media is about…
+ experiences
+ access
+ personalization
+ a means to an end
+ data
+ segmentation
Metro and social.
+ ridership
+ customer service
+ resource advocacy
Ridership
+
+ accessible
+ behavior
+ authenticity
Customer service:
+ real time
+ helpful
+ human
Resource advocacy.
+ scale
+ transparency
+ impact
Challenges.
+ digital capacity
+ customer diversity
+ demo changes
+ tech evolution
+ always on
CUSTOMERS HAVE DIFFERENT LOCATIONS, DESTINATIONS, MODES, TIME CONSTRAINTS & OPTIONS.
Metro social now.
+ customized
+ targeted
+ collaborative
+ interest-driven
EXPERIENCE MAPS ARE INTEREST BASED, MULTI-MODAL, SHAREABLE & CUSTOMIZABLE.
Metro social then.
+ platform neutral
+ personalized
+ real-time incentives
Takeaways.
+ know customers
+ create experiences
+ be useful
Remix

Infusing technology into transit planning

PAUL SUPAWANICH, Remix
paul@getremix.com
getremix.com
@remixcities
Outline

1. Transit planning today
2. Designing a better way
3. Demonstration
4. Case studies
THE PLANNING PROCESS TODAY
<table>
<thead>
<tr>
<th>Route</th>
<th>Vehicle Type</th>
<th>Weekday One-Way Trips</th>
<th>Differential</th>
<th>Weekday Vehicle Miles</th>
<th>Differential</th>
<th>Weekday Service Hours</th>
<th>Differential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Proposed</td>
<td>Base Data</td>
<td>Proposed</td>
<td>Base Data</td>
<td>Proposed</td>
<td>Base Data</td>
</tr>
<tr>
<td>1</td>
<td>T Std</td>
<td>370</td>
<td>370</td>
<td>0</td>
<td>0</td>
<td>2,081</td>
<td>2,081</td>
</tr>
<tr>
<td>1 Short</td>
<td>T Std</td>
<td>112</td>
<td>112</td>
<td>0</td>
<td>0</td>
<td>314</td>
<td>314</td>
</tr>
<tr>
<td>1AX</td>
<td>M Std</td>
<td>48</td>
<td>48</td>
<td>0</td>
<td>0</td>
<td>279</td>
<td>279</td>
</tr>
<tr>
<td>1BX</td>
<td>M Artic</td>
<td>54</td>
<td>54</td>
<td>0</td>
<td>0</td>
<td>213</td>
<td>213</td>
</tr>
<tr>
<td>2</td>
<td>T Std</td>
<td>144</td>
<td>132</td>
<td>12</td>
<td>12</td>
<td>748</td>
<td>686</td>
</tr>
<tr>
<td>2 Short</td>
<td>T Std</td>
<td>168</td>
<td>136</td>
<td>32</td>
<td>32</td>
<td>503</td>
<td>407</td>
</tr>
<tr>
<td>3</td>
<td>T Std</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>T Std</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 Short</td>
<td>T Artic</td>
<td>188</td>
<td>179</td>
<td>9</td>
<td>9</td>
<td>919</td>
<td>877</td>
</tr>
<tr>
<td>5, 5L</td>
<td>T Artic</td>
<td>278</td>
<td>259</td>
<td>19</td>
<td>19</td>
<td>2,082</td>
<td>1,943</td>
</tr>
<tr>
<td>6</td>
<td>T Artic</td>
<td>182</td>
<td>180</td>
<td>2</td>
<td>2</td>
<td>1,318</td>
<td>1,303</td>
</tr>
<tr>
<td>8X, 8BX</td>
<td>T Artic</td>
<td>271</td>
<td>261</td>
<td>10</td>
<td>10</td>
<td>2,786</td>
<td>2,683</td>
</tr>
<tr>
<td>8AX</td>
<td>M Artic</td>
<td>83</td>
<td>80</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>M Std</td>
<td>188</td>
<td>188</td>
<td>0</td>
<td>0</td>
<td>1,688</td>
<td>1,688</td>
</tr>
<tr>
<td>9L, 9L</td>
<td>M Std</td>
<td>158</td>
<td>173</td>
<td>(15)</td>
<td>(15)</td>
<td>1,150</td>
<td>1,262</td>
</tr>
<tr>
<td>10</td>
<td>M Std</td>
<td>243</td>
<td>182</td>
<td>61</td>
<td>61</td>
<td>1,852</td>
<td>1,387</td>
</tr>
<tr>
<td>10 Short</td>
<td>M Std</td>
<td>60</td>
<td>50</td>
<td>10</td>
<td>10</td>
<td>101</td>
<td>84</td>
</tr>
<tr>
<td>11</td>
<td>M Std</td>
<td>164</td>
<td>178</td>
<td>(14)</td>
<td>(14)</td>
<td>739</td>
<td>802</td>
</tr>
<tr>
<td>12</td>
<td>M Std</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>M Artic</td>
<td>274</td>
<td>267</td>
<td>8</td>
<td>8</td>
<td>2,282</td>
<td>2,220</td>
</tr>
<tr>
<td>14 Short</td>
<td>M Artic</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14L</td>
<td>T Artic</td>
<td>225</td>
<td>211</td>
<td>14</td>
<td>14</td>
<td>1,749</td>
<td>1,639</td>
</tr>
<tr>
<td>14X</td>
<td>M Artic</td>
<td>70</td>
<td>60</td>
<td>10</td>
<td>10</td>
<td>621</td>
<td>536</td>
</tr>
<tr>
<td>16X</td>
<td>M Std</td>
<td>48</td>
<td>48</td>
<td>0</td>
<td>0</td>
<td>352</td>
<td>352</td>
</tr>
<tr>
<td>17</td>
<td>M Std</td>
<td>124</td>
<td>114</td>
<td>10</td>
<td>10</td>
<td>1,073</td>
<td>966</td>
</tr>
<tr>
<td>18</td>
<td>M Std</td>
<td>110</td>
<td>110</td>
<td>0</td>
<td>0</td>
<td>823</td>
<td>823</td>
</tr>
<tr>
<td>19</td>
<td>M Std</td>
<td>142</td>
<td>142</td>
<td>0</td>
<td>0</td>
<td>669</td>
<td>669</td>
</tr>
<tr>
<td>21</td>
<td>T Std</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>22</td>
<td>T Std</td>
<td>265</td>
<td>209</td>
<td>56</td>
<td>56</td>
<td>1,173</td>
<td>925</td>
</tr>
<tr>
<td>22 Short</td>
<td>T Std</td>
<td>228</td>
<td>196</td>
<td>32</td>
<td>32</td>
<td>1,267</td>
<td>1,080</td>
</tr>
<tr>
<td>23</td>
<td>M Std</td>
<td>132</td>
<td>116</td>
<td>16</td>
<td>16</td>
<td>1,094</td>
<td>962</td>
</tr>
</tbody>
</table>
## CHALLENGES

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Weekly One-Way Trips</th>
<th>Differential</th>
<th>Weekday Vehicle Miles</th>
<th>Differential</th>
<th>Weekday Service Hours</th>
<th>Differential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proposed</td>
<td>Base Data</td>
<td>Proposed</td>
<td>Base Data</td>
<td>Proposed</td>
<td>Base Data</td>
</tr>
<tr>
<td>1 Short</td>
<td>T Std</td>
<td>T Std</td>
<td>112</td>
<td>112</td>
<td>0</td>
<td>314</td>
</tr>
<tr>
<td>1AX</td>
<td>M Std</td>
<td>M Std</td>
<td>48</td>
<td>48</td>
<td>0</td>
<td>279</td>
</tr>
<tr>
<td>1BX</td>
<td>M Std</td>
<td>M Std</td>
<td>64</td>
<td>64</td>
<td>0</td>
<td>213</td>
</tr>
<tr>
<td></td>
<td>T Std</td>
<td>T Std</td>
<td>144</td>
<td>144</td>
<td>12</td>
<td>748</td>
</tr>
<tr>
<td>2 Short</td>
<td>T Std</td>
<td>T Std</td>
<td>168</td>
<td>168</td>
<td>32</td>
<td>503</td>
</tr>
<tr>
<td>3</td>
<td>T Std</td>
<td>T Std</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>T Std</td>
<td>T Std</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 Short</td>
<td>T Artic</td>
<td>T Artic</td>
<td>188</td>
<td>188</td>
<td>9</td>
<td>919</td>
</tr>
<tr>
<td>5, 6L</td>
<td>T Artic</td>
<td>T Artic</td>
<td>278</td>
<td>278</td>
<td>19</td>
<td>2,082</td>
</tr>
<tr>
<td>6, 6L</td>
<td>T Artic</td>
<td>T Artic</td>
<td>182</td>
<td>182</td>
<td>2</td>
<td>1,318</td>
</tr>
<tr>
<td>8X, 8BX</td>
<td>M Artic</td>
<td>M Artic</td>
<td>271</td>
<td>271</td>
<td>10</td>
<td>2,786</td>
</tr>
<tr>
<td>8AX</td>
<td>M Artic</td>
<td>M Artic</td>
<td>83</td>
<td>83</td>
<td>0</td>
<td>1,688</td>
</tr>
<tr>
<td>9</td>
<td>T Std</td>
<td>T Std</td>
<td>188</td>
<td>188</td>
<td>0</td>
<td>1,688</td>
</tr>
<tr>
<td>9, 6L</td>
<td>M Std</td>
<td>M Std</td>
<td>158</td>
<td>158</td>
<td>15</td>
<td>1,150</td>
</tr>
<tr>
<td>10</td>
<td>M Std</td>
<td>M Std</td>
<td>243</td>
<td>243</td>
<td>61</td>
<td>1,852</td>
</tr>
<tr>
<td>10 Short</td>
<td>M Std</td>
<td>M Std</td>
<td>60</td>
<td>60</td>
<td>10</td>
<td>101</td>
</tr>
<tr>
<td>11</td>
<td>M Std</td>
<td>M Std</td>
<td>164</td>
<td>164</td>
<td>14</td>
<td>739</td>
</tr>
<tr>
<td>12</td>
<td>M Std</td>
<td>M Std</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>M Artic</td>
<td>M Artic</td>
<td>274</td>
<td>274</td>
<td>8</td>
<td>2,282</td>
</tr>
<tr>
<td>14 Short</td>
<td>M Artic</td>
<td>M Artic</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14L</td>
<td>T Artic</td>
<td>T Artic</td>
<td>225</td>
<td>225</td>
<td>14</td>
<td>1,749</td>
</tr>
<tr>
<td>14X</td>
<td>M Artic</td>
<td>M Artic</td>
<td>70</td>
<td>70</td>
<td>10</td>
<td>621</td>
</tr>
<tr>
<td>16X</td>
<td>M Std</td>
<td>M Std</td>
<td>48</td>
<td>48</td>
<td>0</td>
<td>352</td>
</tr>
<tr>
<td>17</td>
<td>M Std</td>
<td>M Std</td>
<td>124</td>
<td>124</td>
<td>10</td>
<td>1,073</td>
</tr>
<tr>
<td>18</td>
<td>M Std</td>
<td>M Std</td>
<td>110</td>
<td>110</td>
<td>0</td>
<td>823</td>
</tr>
<tr>
<td>19</td>
<td>M Std</td>
<td>M Std</td>
<td>142</td>
<td>142</td>
<td>0</td>
<td>669</td>
</tr>
<tr>
<td>21</td>
<td>T Std</td>
<td>T Std</td>
<td>265</td>
<td>265</td>
<td>56</td>
<td>1,173</td>
</tr>
<tr>
<td>22</td>
<td>T Std</td>
<td>T Std</td>
<td>228</td>
<td>228</td>
<td>32</td>
<td>1,267</td>
</tr>
<tr>
<td>22 Short</td>
<td>T Artic</td>
<td>T Artic</td>
<td>142</td>
<td>142</td>
<td>0</td>
<td>533</td>
</tr>
<tr>
<td>23</td>
<td>M Std</td>
<td>M Std</td>
<td>132</td>
<td>132</td>
<td>16</td>
<td>1,094</td>
</tr>
</tbody>
</table>
1. Discourages exploration
CHALLENGES

1. Discourages exploration
2. Hard to communicate trade-offs
## CHALLENGES

1. Discourages exploration
2. Hard to communicate trade-offs
3. Don’t know key info until it’s too late
1. Discourages exploration
2. Hard to communicate trade-offs
3. Don’t know key info until it’s too late
4. Big picture of planning is lost in the details
DESIGNING A BETTER WAY

8.24 miles & 20 buses
49,190 hours / yr
within .25 mi of stops
58,699 people
220,787 jobs
1. Make it intuitive and attractive
DESIGNING A BETTER WAY

1. Make it intuitive and attractive
2. Leverage existing open data
DESIGNING A BETTER WAY

1. Make it intuitive and attractive
2. Leverage existing open data
3. Pilots make better products
TARC (Louisville, KY): Service Change Requests

Responding to numerous requests and what-ifs from management, stakeholders, and the community. With Remix, planning team now spends 20% of the time than it used to take.
Foothill Transit: Making the business case for BRT
Testing routes for the future LA Metro Gold Line Extension, investigating BRT corridors
Oregon DOT: Technical assistance for better planning

State is supporting all Oregon agencies to improve planning, what-if scenarios, regional collaboration
Remix

Infusing technology into transit planning

PAUL SUPAWANICH, Remix
paul@getremix.com
getremix.com
@remixcities