



SUSTAINABILITY & MULTIMODAL PLANNING WORKSHOP

#APTAsmp19





Economic & Social Sustainability of Emerging Transportation Options



tran-sit

noun

1. the carrying of people, goods, or materials from one place to another.

“a painting was damaged **in transit**”

synonyms: transportation, transport, movement, flow, conveyance, shipping, shipment, trucking, carriage, transfer



sus·tain·a·bil·i·ty

noun

1. the ability to be maintained at a certain rate or level.

“the **sustainability** of economic growth”

synonyms: defensible, defensible, justifiable, maintainable,
supportable, tenable



The challenge...

How can transit agencies “sustain” themselves?

How can they carry people and operate their agencies at a certain level?



Not so simple...

- Limited fiscal resources
- Conflicting goals and objectives
 - Economic development vs. gentrification
 - O&M cost savings vs. service increases or improved reliability
 - Incorporation of technology – cost, timing, equity
- Expectation of benefits beyond mobility
 - Improved public safety, health, equity, quality of life
 - Improved environment– EV fleet, solar panels on stations, gray water reuse, mode shift, etc.



Transit agency flexibility important

- Customer focus
 - Customers have lots of choices
 - Need to confirm who our customer is
- Agency structure
 - Limited flexibility
 - Limited funding
- Sustain the service and provide a “sustainable” service consistent with social, environmental, economic goals



What is the implication related to sustainable transit?

- Transit agencies must:
 - Understand their riders
 - Think creatively about how to move people and offer choices
 - Try to be flexible in a constrained environment
 - Be more than just the mobility provider if they are to meet Triple-Bottom Line goals supporting “profit, planet and people”



A customer focus means understanding your riders

- Dialogue with more diverse groups
- Collect data
 - Choice riders
 - Economically disadvantaged/transit-dependent populations
 - Paratransit
- Match investment to riders
 - Choice riders and may be open to Autonomous Vehicles (AV)
 - Economically-disadvantaged riders may need alternatives to cash-less systems
 - Paratransit pilot programs



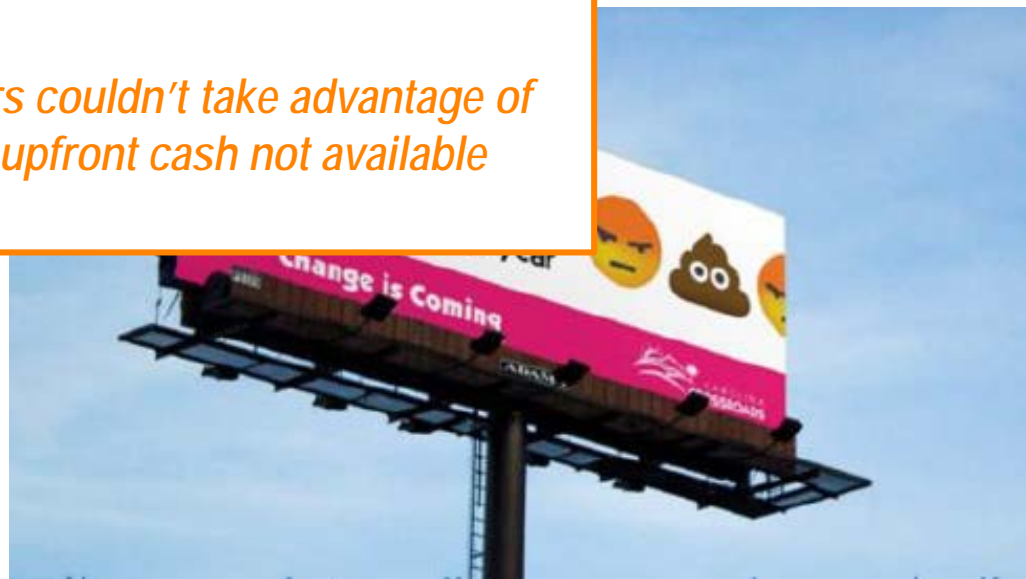
SunLine Transit

Rethink Transit

- Operational/service changes identified
- Taking “social listening” to better understand stakeholders
- Data-driven outreach and messaging more applicable to stakeholders
- Transit agencies must consider diverse demographics when making decision making

Discount programs and technology enhancements considered

Survey revealed riders couldn't take advantage of discount passes – upfront cash not available



Transit trends

Competition and ridership

- Rideshare & Bikeshare
- Autonomous Vehicles (AV) & Microtransit
- Technology



Transit trends

Competition and ridership

Public transit ridership in major US cities has been flat/declining over past few years.

TRB Study Findings suggest:

- Bike share introduction in a city associated with:
 - Increased light and heavy rail ridership
 - 1.8% decrease in bus ridership
- For each year after TNCs enter market:
 - Heavy rail ridership can be expected to decrease by 1.3%
 - Bus ridership can be expected to decrease by 1.7%.
 - TNC effect builds with each passing year and may be an important driver of recent ridership declines.



Think creatively

- Remember TNCs were originally created with business-to-consumer (B2C) business model
- First/last mile connectivity
 - Sound Transit partnering with TNCs to offer connectivity to rail station
 - Valley Metro paying up to \$5 for employees to get to bus/rail stop
- Recognize riders may use transit for part of their journey to lower costs
- ADA Paratransit and dial-a-ride



PEOPLE ARE TALKING ABOUT YOUR AGENCY WITH OR WITHOUT YOU

Transit trends

AV & Microtransit

- City of Lincoln seeking funding for a robust downtown AV circulator
- Arlington, TX replaced underutilized transit route with microtransit – could transition to AV
- Jacksonville Transportation Authority received BUILD funding for U²C Program



BENEFITS

The microtransit service is great for getting around downtown with more direct options which saves me time.

The time savings in my commute allow me to work an extra hour at the restaurant or spend more time with my son.

Sometimes my mom takes my son Gabriel downtown to ride the

DAILY TRAVEL EXAMPLE

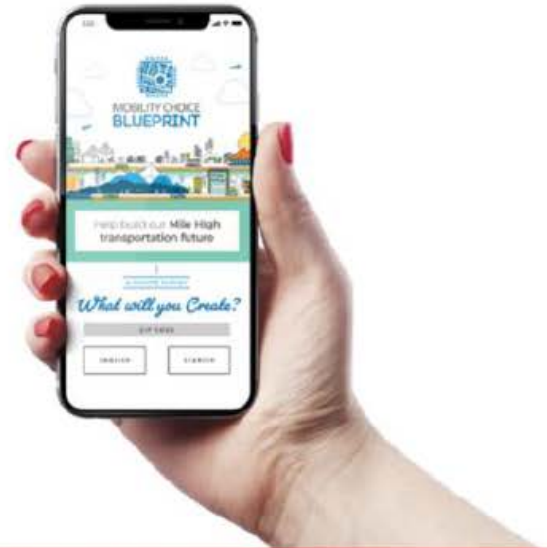


110 minutes
MOBILITY GRIDLOCK

95 minutes
MOBILITY BOLD



The Mobility as a Service program is more affordable than I thought and it has given me the flexibility to live my life!



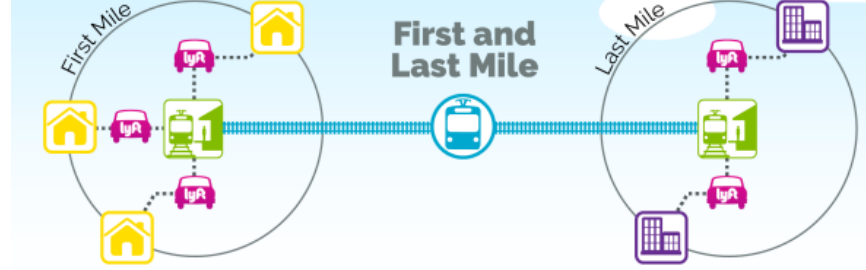
Think creatively

- Consider that AVs may:
 - Potentially eliminate long, thin routes
 - Provide first and last mile feeder service to dense routes
 - Be more appealing to “choice” riders
 - Be demand-responsive
 - Possess other features
 - Likely to have lower capital costs
 - Potentially safer alternative
- Paratransit pilots with TNCs



GoCentennial Pilot

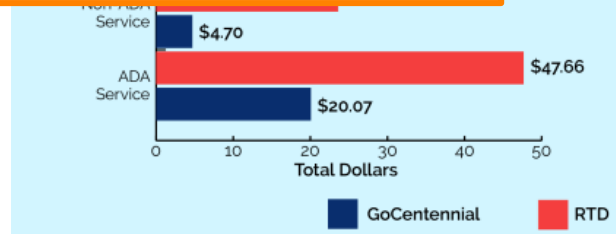
- **Objective** – develop on-demand, mobile-based PPP pilot model to:
 - Maximize first and last mile
 - Enhance ridership and
 - Keep operating expenses low
 - Existing Call-n-Ride
- **Focus** – seniors, people with disabilities, economic development
- **Partners** – funding, operational, service
 - SPIMD
 - City of Centennial and departments
 - Lyft, VIA, Conduent (GoDenver App), CH2M (support to riders without Smartphone and/or credit card)



Focus Areas

Limited number of VIA vehicles

Disabled individuals had longer waits than ideal



Wait Time
5.25 min.



Public-Private Partnership

Flexibility in a constrained environment

- Not-for-profit transit agency competing against for-profit businesses that change as we go to be more competitive
 - Uber incentivizes drivers to be more productive and to gain market share
- Fare increases or operating cost decreases a reality
 - Cashless systems
 - Trimet in Portland phasing expanded ticket sales program at retail outlets – save costs and addresses Title VI concerns



Support the Sustainability Triple Bottom Line (TBL)

- Develop Sustainability Plans
 - DART
- Consider rating systems early on in project
- Incorporate “sustainability” thinking into planning and design
 - LA Union Station, LA Emergency Security Operations Center (ESOC)
 - City of Austin Corridor Construction Program
- Incorporate sustainability requirements into RFPs
 - Certifications
 - On-site disposal



Conclusions

- Important to maintain core “transit” mission but be flexible in doing so
- Remember customer focus
- Look for ways within the agency and the industry to achieve multiple goals
- “One size does not fit all” – what works for one agency may not work for another but build on “lessons learned”



HDR