SMART CITIES SHARK TANK

In 2016, Transportation for America (T4A) launched its Smart Cities Collaborative (the Collaborative) to build a forum for collaboration and provide direct technical assistance to leading-edge cities advancing smart mobility policies and projects.

T4A will host the next in-person meeting of the Collaborative in Atlanta and will bring together the 45 agencies and 23 cities participating in this year's cohort. On the evening of December 3rd, T4A will host the Smart Cities Shark Tank - an ideation and pitch session designed to bring the public and private sector together to discuss problems cities are currently experiencing in areas such as curb management, mobility as a service and late night mobility solutions.

Our participant cities are interested to explore new tools and concepts to help solve their challenges and are eager to work with private sector providers to co-develop those solutions. The goal of the event is to discuss, refine and collaborate on potential solutions in a way that both helps the private sector speed their development cycles and results in products that directly solve cities' needs.

Our participant cities have developed clear summaries of each of the problems they're seeking to solve along with the features and characteristics they're most interested in to give participating companies time to develop potential solutions and presentations. Problem statements can be found below.

During the event, each company will pitch a potential solution to a stated challenge to a panel of judges comprised of representatives from five of our participant cities who will offer direct feedback and provide suggestions on how it could be refined. **We are not looking for sales pitches!** We are looking for private sector companies interested to bring engineers, developers and technical specialists to propose potential solutions to solve cities' technical challenges and receive direct feedback on those concepts.

In addition to pitching a potential solution, presenters should also propose a pilot project to both test those solutions in real-world situations and also to work in concert with the city to further refine the concept to eventually bring to market.

Problem statements

CURB MANAGEMENT
New mobility providers have put additional demand on curb space while highlighting the need for more robust curb management strategies to manage this increasing demand. Whether it's transit stops, parking or TNCs or urban delivery vehicles, undermanaged curb space is creating new safety risks, adding to congestion and hindering cities' ability to manage their streets.

Potential solution:
Cities are interested to manage this space in real-time across providers and use cases such as public transit, parking, TNC pickup/dropoff and urban delivery among others.

Cities are interested in a solution that would:
- Provide curbside occupancy, vehicle occupancy, safety and usage data, and potentially other data collected regarding the right-of-way, safety and usage
  - Including option for cities that aren't interested/can't fund the latest and greatest of technologies. Puck sensors are not applicable in a lot of cities.

- Handle in vehicle and out of vehicle payments from a range of users and providers
    o Including the ability to pay without a smartphone or credit/debit cards.
- Include an automated enforcement mechanism and mechanisms for dispute resolution and accountability, transparency and trust in the enforcement/ticketing/fines
- Establish a curb pricing methodology that rewards efficiency and discourages inefficiency, and enables other policy levers, e.g., transit priority and social equity (accessibility); Pay as you go
- Dynamic/flexible/multi-use curb allocation and tools to implement flexible curb use w/multiple providers and services

Companies proposing solutions should also consider strategies to:
- Coordinate with the municipality around clear customer communication regarding variable curb uses both digitally and physically.
- Secure, manage and share data that enables verification, enforcement, planning, modelling and analysis
- Effectively measure the impact and effectiveness of the service
- Help the municipality Identify curb uses/dedicated space/strategies to minimize congestion impacts (and impacts to transit and other shared modes) from urban delivery or TNC/Taxi passenger drop off/pick up
- Prioritize curb space uses that are shared by multiple passengers or public transit
- Minimize TNC deadheading between passengers

MOBILITY AS A SERVICE

With the increase in new mobility services, new opportunities exist to better manage public and private transportation providers together and leverage their respective strengths to maximize their potential. Whether it's scooters, bikeshare, transit, carshare or TNCs, cities want to create a seamless, multimodal travel experience for residents while encouraging connections to transit and more sustainable modes.

Potential solution:

Cities are interested in a tool that can aggregate both transit and emerging mobility services planning and payment information into a single mobile application, helping creating a more dependable and predictable travel experience.

Cities are interested in a solution that would:
- Tie together multiple public and private mobility options (with an emphasis on transit)
- Be provider agnostic (ie. doesn't favor one vendor over others and shows the full universe of available options)
    o But, end-users should be able select which modes/vendors they prefer when trip planning would be a nice feature to maintain a competitive market.
- Have integrated planning and payment information
    o Offers pay as you go as well as pricing packages or subscriptions
- Includes options for riders with disabilities and differing abilities
- Have the ability to encourage sustainable travel behavior through promotions and incentives

Companies proposing solutions should also consider strategies to:
- Make service available to residents without smartphones or credit cards
- Effectively measure the impact and effectiveness of the service

- Coordinate with the municipality around clear customer/resident communication regarding MaaS, how it works and the benefits of using MaaS
- Help the municipality identify digital and physical infrastructure they can provide to support the adoption of MaaS
- Secure, manage and share data that enables verification, planning, modelling and analysis

LATE NIGHT MOBILITY SOLUTION

The other "9-5" is a significant challenge for many cities. Transit, if available, is often unreliable or infrequent. Similarly, many travelers are uncomfortable and feel unsafe waiting for a bus or train during the late night period. Most importantly, workers traveling during this period often represent some of the most vulnerable and low-income individuals in a city -- hotel cleaners, office maintenance staff, late delivery receivers (for urban goods delivery), etc. As a result, these low-income workers, typically drive to and from work during late night hours at a substantial cost to themselves and are increasing emissions and congestion in central cities. Or in some cases, there is "under-the-table" public transit provided by employment agencies or employers that buy their own van fleets, have one of the employees driving the van and picking up other workers, and collecting "fares" from fellow employee passengers in order to get employees to/from their workplaces for these late/early work shifts that public transit does not serve. In either case, workers often lack safe, affordable, and accessible transportation options to get to and from their jobs.

Potential solution:

Cities are interested in a solution to improve mobility and access to job centers/workplaces for travelers during the late night period between 9pm and 6am, helping improve commute times and increase convenience and reliability for employees working challenging shifts and juggling work/life balance.

Cities are interested in a solution that would:
- Provide increased mobility and access to help riders get to and from work
- Prioritize connections to main line transit options where and when possible
- Offer direct payment and booking options for users
  - Including those for residents without smartphones or credit cards
- Include options for riders with disabilities and differing abilities

Companies proposing solutions should also consider strategies to:
- Develop equity-focused fare structures to reduce prices for low-income individuals
  - Coordinate with the municipality on low-income fare structures and verification strategies
- Coordinate with the municipality around clear employee/resident communication regarding late night service
- Effectively measure the impact and effectiveness of the service
- Secure, manage and share data that enables planning, modelling and analysis

Sponsorship

T4A is seeking corporate sponsors who are interested in supporting the work of the Collaborative and helping shape the interplay between city-level regulation and business interests, as well as building relationships with some of the most forward-looking actors in this field today. We are asking companies interested in participating to help sponsor the event in order to ensure that every city in the Collaborative

is able to attend and offset event costs such as travel expenses, space and audio visual rental, food and beverages.

About T4A's Smart Cities Collaborative

In 2016, T4A launched a forum for collaboration and provide direct technical assistance to leading-edge cities advancing smart mobility policies and projects. In its first year, the Collaborative focused its efforts on helping cities not just understand the technological changes and opportunities presented by automated vehicles, shared mobility and data analytics, but how the right policies and projects can be used most effectively to achieve their outcomes. During this work an overall theme emerged–technology and new mobility are fundamentally reshaping the right-of-way and curb space.

This is the focus of the Collaborative in 2018 and how cities can craft the policy, launch pilot projects and create the relationships necessary to respond and shape this rapidly changing environment. This year, our Collaborative includes ~70 senior leaders and decision makers, representing 45 distinct departments and agencies from 23 communities across the country. Below is a list of participating communities:

Atlanta, GA • Austin, TX • Boulder, CO • Centennial, CO • Gainesville, FL • Houston, TX • Indianapolis, IN • Lone Tree, CO • Los Angeles, CA • Madison, WI • Miami-Dade County, FL • Minneapolis, MN • New York, NY • Pittsburgh, PA • Portland, OR • San Diego, CA • San Francisco, CA • San Jose, CA • Santa Monica, CA • Seattle, WA • Toronto, ON • Washington, D.C. • West Sacramento, CA