

# SHARED-USE MOBILITY SUMMIT



Retrospective from North America's first gathering on  
shared-use mobility

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## Abstract

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Shared-use mobility—the shared use of a vehicle, bicycle or other low-speed mode—is an innovative transportation solution that enables users to have short-term access to a transportation mode. In North America, shared-use mobility encompasses the submarkets of carsharing, bikesharing, ridesharing, on-demand ride services, scooter sharing, shuttle services, and other emerging industries. In October 2013, the University of California, Berkeley's Transportation Sustainability Research Center (TSRC) hosted the inaugural Shared-Use Mobility Summit in San Francisco, California. The summit was a two-day event that facilitated a dialogue among nearly 300 participants representing close to 200 organizations. Participants included mobility providers, policymakers, governmental agencies, non-profits, technologists, academics, media, other stakeholders, and affiliated industries. One hundred and five (105) private companies attended the summit, and 62 governmental agencies were represented at the summit. Additionally, 44 academics from 17 universities participated. Of the 194 organizations represented, 26 were affiliated with carsharing, 16 with bikesharing, and 6 were associated with ridesharing and on-demand ride services or transportation network companies (TNCs).

In recent years, economic, environmental, and social forces have quickly pushed shared-use mobility from the fringe to the mainstream, and its role in urban mobility has become a frequent point of discussion. The summit provided a diverse array of stakeholders the opportunity to advance the discussion by addressing key issues and helping to shape the future of shared-use mobility. This white paper, generously supported by the Rockefeller Foundation, discusses the state of the industry and trends in major shared-use mobility sectors: carsharing (including roundtrip, one-way, and peer-to-peer), bikesharing, ridesharing, and on-demand ride services (e.g., TNCs). The paper also summarizes summit sessions and highlights issues discussed at the event including: 1) scaling of the shared-use mobility sector; 2) integration of shared-use mobility services and public transit; and 3) micro- and macro-policy considerations related to insurance, taxation, and parking.

We conclude this paper with a discussion of the future of shared-use mobility within the transportation industry, need for multimodal integration, and important issues to be addressed. Key policy considerations arising from the summit include: 1) the need for consistent shared-use definitions and standards; 2) public funding for shared-use mobility; and 3) public transit integration. Developments emerging from this inaugural event include a 2014 summit focused on policy innovations and the launch of a new Shared-Use Mobility Center.

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## Executive Summary

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Shared-use mobility—the shared use of a vehicle, bicycle, or other low-speed mode—is an innovative transportation solution that enables users to have short-term access to transportation modes on an “as-needed” basis. Shared-use mobility includes carsharing, personal vehicle sharing (or peer-to-peer (P2P) carsharing), bikesharing, scooter sharing, shuttle services, ridesharing, and on-demand ride services. It can also include commercial delivery vehicles providing flexible goods movement. Shared-use mobility has had a transformative impact on many global cities by enhancing transportation accessibility while simultaneously reducing ownership of personal automobiles. In the context of carsharing and bikesharing, vehicles and bicycles are typically unattended, concentrated in a network of locations where the transaction of checking out a vehicle or bicycles is facilitated through information technology (IT) and other technological innovations. Usually, carsharing and bikesharing operators are responsible for the cost of maintenance, storage, parking, and insurance/fuel (if applicable). In the context of classic ridesharing (carpooling and vanpooling) and on-demand ride services, such as transportation network companies (TNCs), many of these providers employ IT to facilitate the matching of riders and drivers for trip making.

Shared-use mobility modes have reported a number of environmental, social, and transportation-related benefits. Several studies have documented the reduction of vehicle usage, ownership, and vehicle miles/kilometers traveled (VMT/VKT). Cost savings and convenience are frequently cited as popular reasons for shifting to a shared-use mode. Shared-use modes can also extend the catchment area of public transit, potentially playing a pivotal role in bridging gaps in existing transportation networks and encouraging multi-modality by addressing the first-and-last mile issue related to public transit access. Shared-use mobility is also thought to provide economic benefits in the form of cost savings, increased economic activity near public transit stations and multi-modal hubs, and increased access by creating opportunities for new trips not previously accessible by traditional public transportation and by enabling new one-way (or point-to-point) service options previously unavailable.

In North America, the first carsharing and bikesharing programs launched in 1994. Shared-use mobility services have grown rapidly since the mid-1990s. In addition to carsharing and bikesharing, there has been burgeoning activity and new launches in P2P carsharing; scooter sharing; IT-based ridesharing; and on-demand ride services, such as Uber, Lyft, and Sidecar. Economic, environmental, and social forces have pushed shared-use mobility from the fringe to the mainstream, and its role in urban mobility has become a popular topic of discussion.

On October 10 and 11, 2013, UC Berkeley’s Transportation Sustainability Research Center (TSRC), with generous support from the Rockefeller Foundation and numerous sponsors and partners (listed at the end of this white paper), hosted the inaugural Shared-Use Mobility Summit in San Francisco, California. The summit facilitated a lively dialogue among nearly 300

participants representing close to 200 organizations. Participants included mobility providers, policymakers, governmental agencies, non-profits, technologists, academics, media, stakeholders, and affiliated industries. One hundred and five private companies and 62 governmental agencies were represented at the summit. Additionally, 44 academics from 17 universities participated. Of the 194 organizations represented, 26 were affiliated with carsharing, 16 were with bikesharing, and 6 were associated with ridesharing and on-demand ride services/TNCs. The summit provided stakeholders with the opportunity to advance the discussion and to help identify key policy issues. The next summit will focus on policy issues and will be held in DC in June 2014. For more information, please see: [www.sharedusemobilitycenter.org](http://www.sharedusemobilitycenter.org).

A number of key trends set the backdrop of the summit, including:

- 1) Demographic shifts;
- 2) Recent declines in private vehicle ownership;
- 3) Reduction in gas tax revenue resulting from increased fuel efficiency and reduced VMT/VKT; and
- 4) The growth of shared-use mobility within the broader sharing economy.

Summit participants explored key trends, definitions, and developments in the current and emerging policy arena and shared success stories from cities across the globe. Participants discussed the need for industry-wide definitions and standards to advance supportive legislation, guide regulation, and enhance public safety and equity. In addition to defining the marketplace for public policy development, challenges in articulating the similarities and differences among shared-use mobility services were also examined, particularly within the context of education and outreach. A key point of discussion was the need for data sharing between shared-use providers and governmental agencies (or an “information infrastructure”) to better understand where there may be service gaps in the transportation network, which shared-use mobility services might fill, and to facilitate integrated transportation systems.

A combination of plenary and break-out sessions covered issues such as: 1) scaling of the shared-use mobility sector; 2) integration of shared-use mobility services and public transit; 3) micro- and macro-policy considerations related to bicycle helmet usage, insurance, taxation, and parking; and 4) the future of shared-use mobility and its impacts on transportation planning and policy. Other policy discussions highlighted concerns about social equity and how to enhance low-income access and usage, increase the demographic diversity of users, and expand the geographic coverage of shared-use mobility services ensuring equitable access within urban neighborhoods and improving access in the suburbs. An evening spotlight panel on “The Future of Mobility and Transportation Policy and Planning,” supported by the Rockefeller Foundation and Transportation for America, focused on macro-governance issues in transportation policy and planning, fostering a lively dialogue among panelists and the audience.

Other key topics discussed at the summit included business models within the sharing economy, discussions on the advancement of shared-use public policy, and the impacts of shared-use mobility. Finally, the summit provided industry-specific breakout sessions on carsharing, bikesharing, ridersharing, and on-demand ride services/TNCs to foster a dialogue within each sector. These breakout sessions emphasized public policy developments, shared concerns, and challenges and opportunities to growth. Following the breakout sessions was a “Report Back” session in which each sector identified the most poignant discussion items from their respective sessions.

While a range of topics were discussed during the summit, some of the *prominent issues* identified and examined included:

- 1) The need for government to recognize shared-use mobility as a prominent component of transportation networks via new policy;
- 2) The importance of addressing social equity in system planning and business model development;
- 3) The need and challenges to scaling shared-use systems (e.g., insurance);
- 4) Parking and insurance remain obstacles to shared-use mobility expansion;
- 5) The need to balance data sharing (open data) and privacy on both individual and company levels; and
- 6) The future of shared-use mobility (e.g., the role of autonomous vehicle technology in scaling and delivering services in a variety of land use settings).

Three *key policy considerations* were identified during the two-day summit dialogue:

- 1) The need for consistent shared-use definitions and standards;
- 2) Public funding for shared-use mobility; and
- 3) Public transit integration.

Finally, there were two notable developments that emerged directly from the 2013 Shared-Use Mobility Summit. They include:

- 1) The next summit, which will be held in Washington, D.C. in June 2014, will focus on public policy innovations in mobility; and
- 2) The launch of the Shared-Use Mobility Center, a non-profit organization founded to expand mobility choices for people and communities by enriching and integrating shared-use mobility services through collaboration and innovation. The center’s mission is to advance transportation policy and practice in shared mobility.

A video recording of the summit's first day plenary sessions can be found at:

[www.sharedusemobilitycenter.org/summits/shared-use-mobility-summit/](http://www.sharedusemobilitycenter.org/summits/shared-use-mobility-summit/)

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## I. Introduction

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The inaugural 2013 Shared-Use Mobility Summit was held on October 10 and 11, 2013, at the Hilton San Francisco Financial District Hotel. To our knowledge, it was the first summit or conference that explicitly focused on shared-use mobility in the Americas. The summit was a two-day event that facilitated a lively dialogue among nearly 300 participants representing close to 200 organizations. Most sessions were formatted to encourage audience participation throughout. Participants included mobility providers, policymakers, governmental agencies, non-profits, technologists, academics, media, stakeholders, and affiliated industries.



What is shared-use mobility? Shared-use mobility includes carsharing, personal vehicle sharing, bikesharing, scooter sharing, ridesharing, on-demand ride services, shuttle services, and other emerging industries. Shared-use mobility—the shared use of a transportation mode by the public—has had a transformative impact on many global cities by enhancing mode accessibility and overall mobility, while simultaneously reducing private vehicle ownership. Shared-use mobility allows users access to a fleet of vehicles, bicycles, or other low-speed modes on an “as-needed” basis. In the context of carsharing and bikesharing, vehicles and bicycles are typically unattended and concentrated in a network of locations where the transaction of checking out a vehicle or bicycle is often facilitated through information technology (IT) and other technological innovations. Usually, carsharing and bikesharing operators are responsible for the cost of maintenance, storage, parking, insurance, and fuel (if applicable). In the context of ridesharing and on-demand ride services (also known as transportation network companies or TNCs), many of these providers employ IT to facilitate the matching of riders and drivers for trip making.

Shared-use mobility modes have reported a number of environmental, social, and transportation-related benefits. Several studies have documented the reduction of vehicle use, ownership, and vehicle miles/kilometers traveled (VMT/VKT). Cost savings and convenience are frequently cited as popular reasons for shifting to a shared-use mode. Shared-use mobility can also extend the catchment area of public transit, playing a pivotal role in bridging gaps in existing transportation networks and encouraging multi-modality by addressing the first-and-last mile issue related to transit connectivity. It is also thought to provide economic benefits in the form of cost savings, increased economic activity near public transit stations and multi-modal hubs, and

increased access by creating opportunities for new trips not previously accessible by public transportation and by enabling new one-way service (or point-to-point) options previously unavailable.

In North America, the first carsharing and bikesharing programs launched in 1994. Shared-use mobility services have grown at a rapid pace since the mid-1990s. In addition to carsharing and bikesharing, there has been burgeoning activity and new launches in the shared-use fields of P2P carsharing, IT-based ridesharing, and on-demand ride services/TNCs. Economic, environmental, and social forces have pushed shared-use mobility from the fringe to the mainstream, and its role in urban mobility has become a frequent point of discussion. The summit provided stakeholders with the opportunity to advance the discussion and to help identify key issues in future policymaking. The next summit will focus on policy issues and will be held in DC in June 2014, for more information see: [www.sharedusemobilitycenter.org](http://www.sharedusemobilitycenter.org).

The summit facilitated a discussion on the policies and issues related to a range of shared-use modes and related sharing economy solutions. A combination of plenary and break-out sessions explored issues such as: 1) the scaling of the shared-use mobility sector; 2) the integration of shared-use mobility services and public transit; 3) micro- and macro-policy considerations related to bicycle helmet usage, insurance, taxation, and parking; and 4) the future of shared-use mobility and its impacts on transportation planning and policy. Other policy discussions highlighted concerns about social equity and how to enhance low-income access and usage, increase the demographic diversity of users, and expand the geographic coverage of shared-use mobility services ensuring equitable access within urban neighborhoods and improving access to the suburbs. This white paper is organized into four sections: 1) Panel Summaries; 2) Key Public Policy Issues; 3) Encouraging Multi-Modality (a central theme of the summit); and 4) Conclusion.

## II. Panel Summaries

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The summit was attended by 277 people. One hundred and five (105) private companies and 62 governmental agencies were represented at the summit. Additionally, 44 academics from 17 universities participated in the event. Of the 194 organizations represented, 26 were affiliated with carsharing, 16 with bikesharing, and 6 with ridersharing and on-demand ride services. This section provides a summary of each panel, moderators, speakers, and a synopsis of the topic discussed.

### OCTOBER 10 - DAY 1

#### **Opening Remarks**

The summit began with opening remarks from Laura Melandy, Assistant Director of the Institute of Transportation Studies at UC Berkeley, Adjunct Professor Susan Shaheen of UC Berkeley, and Supervisor Scott Wiener (on behalf of Mayor Ed Lee) of the City and County of San Francisco. Each explained the significance of the meeting and the role of shared-use mobility in our current and future transportation systems. Dr. Shaheen noted that many people attending the summit had been working on shared-use mobility for well over a decade and this summit marked the beginning of a new era of shared-use mobility: an integrated approach/vision for connecting all sectors of shared-use mobility with one another and public transportation. Next, she presented key developments in shared-use mobility's young but vibrant history and emphasized that consumer behavior is showing signs of a shift from *ownership to access*—a notion first identified by Kevin Kelly, founding Executive Editor of Wired Magazine in 2009. This shift in behavior is enabling shared-use mobility services to gain traction in today's economy. She also noted the need for integration among modes, a topic that would be discussed throughout the summit. Dr. Shaheen concluded her remarks with a quote from Aristotle, "The whole is greater than the sum of its parts," to set the tone for the summit and to foster a dialogue about multi-modal integration, scale, and sustainability within the larger shared-use mobility industry.

#### **Setting the Stage**

The first session, "Setting the Stage: Big Trends, Definitions, and Policies," opened the summit with an overview of key trends, definitions and developments, and background on the current and emerging policy arena in shared-use mobility. The session began with a reflection on national trends by Sharon Feigon, CEO of Alternative Transportation for Chicagoland. Ms. Feigon discussed the effect of urban processes, demographic shifts, and the decline of traditional ownership models on the changing mobility landscape, with a particular focus on urban areas. Additionally, Ms. Feigon noted the national trends of: 1) a decrease in vehicle miles/kilometers traveled (VMT/VKT) and 2) a drop in gas tax revenues due VMT/VKT declines and increased vehicle fuel economy. A means of compensating for this reduction in transportation funding needs to be part of our nation's mobility dialogue. This subject was discussed throughout the summit. Dr. Shaheen highlighted the need for more precise definitions of shared-use mobility

variants, given increasingly blurring lines among emerging and existing shared-use modes (see “Key Public Policy Considerations” below for the definitions). Timothy Papandreou, Deputy Director of Strategic Policy and Planning at the San Francisco Municipal Transportation Agency (SFMTA), posited that both policy and vision are important to the transportation landscape—particularly when integrating a wide range of transportation services for users. Mr. Papandreou stressed that customer-focused integration processes, such as routing, booking, and payment, were crucial to make the point-to-point transportation experience viable, simple, and fun, rather than confusing and obtuse. Additionally, Mr. Papandreou discussed the growing role of public transit agencies and government at all levels to facilitate modal sharing and to regulate in a manner that makes the playing field fair for each service.

### **Success Stories**

In the second session, "Shared-Use Mobility Success Stories," representatives from four major cities spoke about their experiences with shared-use mobility. Susan Zielinski, Managing Director of SMART at the University of Michigan moderated the panel. Dan Emerine, Transportation Planner at the D.C. Office of Planning, explained Washington, D.C.'s success with bikesharing and stressed the need to "think big," given that public bikesharing schemes tend to require significant scale to provide effective service. Mr. Emerine discussed three key issues: 1) the government's dual role as an enabler and a facilitator but also as a protector and regulator; 2) the need for regional interoperability; and 3) the idea that initial failure enables future success and innovation. Mr. Emerine provided the example of Washington, D.C.'s initial entry into bikesharing—the first major city in the United States to pursue such a system. He described the challenges encountered with SmartBike DC as providing an opportunity to learn and realize where gaps existed. From those experiences, they were able to implement Capital Bikeshare, which is widely viewed as a successful bikesharing program. Iván de la Lanza, Director of Mexico City's Bicycle Mobility Strategy, reported that Mexico City's bikesharing system helps citizens explore new areas of their city. He discussed initial concerns that the city had with bikesharing, including vandalism and bicycle theft. He further noted that Mexico City has one of the lowest rates of vandalism and bikesharing theft because people enjoy the benefits of bikesharing so much that they have started using social media to report thefts and vandalism. Mr. De la Lanza also shared that bikesharing has become a truly transformative program for the city. Ed Reiskin, Director of Transportation for SFMTA, asserted that the sharing economy is not “coming; it has already been established.” He went on to state that San Francisco’s policy is “transit first,” which means that supporting options such as public transit and carsharing are a priority of the city. Mr. Reiskin added that San Francisco is scaling up the space available for carsharing vehicles, and the planning code is being changed to encourage carsharing space through land-use development. He noted that the biggest challenge is to decide which new ideas will work for constituents. Gilles Vesco, Vice Mayor of the City of Lyon, explored successful factors in public bikesharing in Lyon—specifically, the importance of doubling the number of stations and garnering strong political support for the system. Mr. Vesco shared that the large number of stations was conducive to facilitating a more convenient one-way bikesharing option.

He pointed out that innovations in technology and business models have been crucial to the program's success. Mr. Vesco also discussed how bikesharing is offering a clear nexus between ecological, economic, and social needs.

### **Scaling the Shared-Use Mobility Marketplace**

The third session, "The Sharing Economy: Scaling the Shared-Use Mobility Marketplace," addressed the notion of scale—one of the key issues facing the shared-use mobility sector today. Lisa Gansky, entrepreneur and author of *The Mesh*, moderated the panel. Ms. Gansky facilitated the panel discussion by posing a number of questions on a variety of topics including: 1) evolving business models, economic impacts, and data sharing; 2) the role of government in shared-use mobility; and 3) how transit/shuttle stops (e.g., the Google Bus) might increase home values. In his response to Ms. Gansky, bikesharing specialist and former CEO of PBSC, Alain Ayotte, highlighted the role of bikesharing stations in increasing housing market values. Natalie Foster, Co-founder of Peers, discussed how many regulations are written for old business models that are based on non-shared property. Rick Hutchison, CEO of City CarShare, explained: 1) the disruptive potential of shared-use mobility services in parking regulation, 2) the role carsharing plays in helping communities meet their environmental and social goals, and 3) challenges in deciding where to allocate capital. Gabe Klein, Commissioner for the Chicago Department of Transportation, concluded that: "we need low-cost, high-return systems."

### **Lunch Talk by Lisa Gansky**

The lunch talk by Lisa Gansky focused on the sharing economy and the potential for the growth of businesses operating within this framework. Ms. Gansky highlighted the impact of the sharing economy on technology, noting that enhanced end-user accessibility removes the friction of sharing and creates new marketplaces. She also asserted that the fusion of public and private entities generates the potential for asset sharing. These marketplaces can be realized in neighborhoods, which in turn facilitate the growth of cities, where the idea of sharing resources is commonplace. She also spoke about the importance of data and data sharing within and among communities and shared-use service providers.

### **Governance 2.0: Shared-Use Policy Approaches for City and County Governance**

The fourth session, "Governance 2.0 (Micro-level): Shared-Use Policy Approaches for City and County Governance," emphasized the role of municipal policies in promoting shared-use mobility. Ray Traynor, Program Manager with the Executive Team of the San Diego Association of Governments (SANDAG), moderated the panel. The panel discussed how government can innovate its regulatory approach by only acting where necessary, and leave other mobility activities to private or nonprofit groups based on efficiency. In addition to fairness in regulation, the panel examined why some underserved communities are not buying into shared-use mobility and what local groups can do to change this. Kevin Desmond, General Manager of King County Metro Transit, highlighted the importance of standardization. Mr. Desmond discussed his agency's experience in working with constituents, employers, and ridesharing providers. He

noted that a public transit agency could work with “competitors” through an “all-of-the-above” approach that integrates multiple solutions, including buses, shuttles, carsharing, and bikesharing. Guy Fraker, Co-Founder of get2kno, discussed the innovative potential of governments. Mr. Fraker emphasized the need to avoid misunderstandings that can arise between the public and private sectors through education and communication focused on the public good. Dr. Arun Sundararajan, Professor at the NYU Stern School of Business, reflected on the critical role of data access, saying that technology gives us access to platforms that allow us to rethink the way we consume.

### **Bikesharing Mobile Workshop**

While the “Governance 2.0” session was underway, a concurrent mobile workshop took place outside the conference venue. The workshop examined the planning and operational challenges that have been faced by Bay Area Bike Share since its inception. Kansas Waugh, Bay Area Bike Share Program Director, and Heath Maddox, Senior Planner at SFMTA led the workshop. In addition to experiencing the Bay Area Bike Share system, workshop attendees also examined San Francisco’s burgeoning bike infrastructure firsthand as they navigated between trolley lines and bikesharing stations.

### **The Impacts of Shared-Use Mobility Services**

The fifth session, "The Impacts of Shared-Use Mobility Services," examined the effects that shared-use mobility systems have had on users, urban form, and the environment. Dr. Bodo Schwieger, Founder of Team Red, reported on an ongoing study of carsharing providers in Munich. The study looked at free-floating and station-based carsharing models, as well as private and public parking spaces. One main conclusion from the study is that the entire transportation system needs to be considered to achieve a reduction in VMT/VKT. Nicholas Ramfos, Director of Commuter Connections for the Metropolitan Washington Council of Governments, discussed aspects of a measurement framework for ridesharing. One area where the biggest impact has been realized is through partnerships with large employers that incentivize employees to use transit alternatives to commute. Dr. Jennifer Dill, Professor at Portland State University, spoke about early understanding of a peer-to-peer carsharing program in Portland, Oregon. At the program’s outset, the two questions were: 1) can peer-to-peer carsharing reduce VMT/VKT, especially peak period VMT/VKT; and 2) can peer-to-peer carsharing increase mobility for people without cars? While the program is still in progress, Professor Dill shared some preliminary results including: 1) users are different than the general population; 2) it appears vehicle owners will reduce their VMT/VKT to make their vehicle available to renters; and 3) this model likely reaches a larger range of users (i.e., social equity). Dr. Elliot Martin, Assistant Research Engineer at UC Berkeley’s Transportation Sustainability Research Center, explained that research shows that bikesharing draws users from public transit in city centers and increases public transit use in surrounding areas. The session ended with a presentation by Susan Shaheen on market growth dynamics in carsharing (as of July 2013, there were 1.15 million carsharing members in the Americas that shared a fleet of over 20,800 vehicles) and its impacts, such as a

reduction in VKT/VMT by an average of ~30% and the removal of 9 to 13 private automobiles per carsharing vehicle. She also noted that one-way carsharing grew by six percentage points in both membership and fleet size from July 2012 to July 2013.

**Spotlight Evening Panel: The Future of Mobility and Transportation Policy and Planning**  
The Rockefeller Foundation and Transportation for America generously supported the spotlight evening panel on “The Future of Mobility and Transportation Policy and Planning.” This session focused on macro-governance issues regarding transportation policy and planning. Tyler Frisbee, Legislative Assistant in the Office of Congressman Blumenauer, discussed the shift toward performance-based transportation systems. Commissioner Gabe Klein stressed the need for more infrastructure investment in the United States. Finally, Jason Pavluchuk, President of Pavluchuk & Associates, argued that an emphasis should be placed on increased efficiency above environmental gains in changing traditional attitudes and car use. Issues surrounding gas tax, employment, subsidies, and technology were addressed in this lively panel and audience discussion.

Please note that a video of this first day’s plenary session can be found at:  
[www.sharedusemobilitycenter.org/summits/shared-use-mobility-summit/](http://www.sharedusemobilitycenter.org/summits/shared-use-mobility-summit/)

## **OCTOBER 11 - DAY 2**

### **Fostering Multi-Modal Integration and Public Transit Connections**

Day Two began with a plenary session on “Fostering Multimodal-Integration and Public Transit Connections,” which was moderated by Sharon Feigon of ATC. Panelists included: Andrew Bata, Chief of Strategic Improvements and Best Practices, New York City Metropolitan Transit Authority; Art Guzzetti, Vice President of Policy at the American Public Transportation Association; Mark Norman, President of Zipcar; and Larry Yermack, Strategic Advisor of Cubic Corporation. This session highlighted the role of public transit agencies in advancing multi-modal integration within transportation systems. Obstacles examined included: technological barriers, lack of integration within existing transportation systems, skepticism of multimodality, and age-dependent travel patterns. Proposed solutions included: 1) increased communication among system stakeholders, 2) joint-fare payment arrangements, 3) an updated policy framework, and 4) improved relationships with elected officials.

### **Industry Breakout Sessions**

After the first plenary session, industry-specific breakout sessions were led for carsharing, bikesharing, and ridesharing and on-demand ride services/TNCs. Barriers and opportunities to growth potential for shared-use mobility services were discussed during these sessions, and findings were presented in an afternoon plenary session.

## **Carsharing Sessions**

Participants in the carsharing session represented the diverse segments of the carsharing industry (e.g., classic roundtrip carsharing, peer-to-peer carsharing, and one-way carsharing). Gabriel Metcalf, Executive Director of SPUR, moderated the morning session, “Carsharing and Personal Vehicle Sharing.” Panelists included: Ryan Johnson, Assistant Vice President of Enterprise CarShare; William Knapp, Chief Operating Officer of car2go; and Kevin McLaughlin, President and Founder of AutoShare. Uniformity in insurance, government relations, and parking practices were identified as key challenges. For example, no industry standards or governmental regulations have been developed to require carsharing companies to provide consumers with a specified minimum level of liability insurance. Access to information and the coexistence of multiple business models were identified as key issues facing broader market adoption. The afternoon session, “Carsharing and Personal Vehicle Sharing: Encouraging Policy and Multi-Modal Collaboration,” was moderated by Alan Woodland, Executive Director of the Carsharing Association. The afternoon panelists were: Jennifer Dotson, Executive Director of Ithaca Carshare; Mark Norman, President of Zipcar; Rich Steinberg, CEO of DriveNow USA; and Karen Worminghaus, Director of eGo CarShare.

## **Bikesharing Sessions**

In the bikesharing sessions, industry professionals from around the world gathered to discuss policy, technology, and operations. Matt Christensen, former Managing Editor of Bikeshare.com, moderated the morning session, “Bikesharing Operational & Policy Challenges.” Panelists included Alison Cohen, Director of Bike Sharing Services for Toole Design Group; Bill Dossett, Executive Director of Nice Ride MN; Claire Hurley, Field Operations Manager for B-cycle; and Kansas Waugh, Project Director of Bay Area Bike Share. Operational issues were the primary topic of discussion. Issues included: 1) hurdles to collaboration and implementation; 2) defining appropriate service level goals within contracts; 3) systems facing excess demand for their service versus larger scale operators, such as Citi Bike and Nice Ride MN; and 4) on-the-ground logistics. Mitch Vars, I.T. Director of NiceRide Minnesota, moderated the afternoon session, “Bikesharing Equipment and Technology: The Next Steps.” Speakers on this panel included: Gian-Carlo Crivello, Business Development Director of Public Bike System Company; Lee Jones, Director of Sales at B-cycle; Dedrick Roper, Electric Bikeshare Project Manager at City Carshare; and Ryan Rzepecki, CEO of Social Bicycles. This session highlighted: 1) technology and equipment, 2) obstacles and opportunities for the integration of bikesharing with other transportation modes, 3) the pros and cons of different bicycles types, and 4) the feasibility of one-way bikesharing trips.

## **Ridesharing and On-Demand Ride Services/TNCs Sessions**

In the ridesharing and TNC sessions, participants demonstrated interest in providing the public with more transportation options and focused on the role of ridesharing and on-demand ride services/TNCs in reducing congestion. Technology was discussed as a means of advancing multi-modal integration. The morning session, “Ridesharing/Transportation Network Companies

(TNCs)," was moderated by Larry Filler, President of LF Consulting & the Ridesharing Institute. Panel members included: Odile Beniflah, Senior Product Manager of Carpooling.com; Richard Bryce, Executive Vice President of Carma; Dr. David King, Assistant Professor of Architecture, Planning, and Preservation at Columbia University; and John Zimmer, Chief Operating Officer and Co-Founder of Lyft. This session provided a view of a wide range of shared-use services including: ridesharing, jitneys, buspools, on-demand ride services/TNCs, and applications that provide the public with information and arrangements for all available transportation options for a desired trip. Each of the speakers described the benefits and issues associated with the growing use of these modes and the difficulties in defining the services in this sector. After lunch, Eric Schreffler, Founder and CEO of ESTC, facilitated the ridesharing/TNC session: "Encouraging Policy and Multi-Modal Collaboration." Panelists were: Nathalie Criou, CEO of RidePal; Ryan Johnson, Assistant Vice President of Zimride; Jon Martz, Vice President of V-Ride; Carli Paine, Transportation Demand Management (TDM) Project Manager at SFMTA; and Sunil Paul, Founder and CEO of Sidecar. This session examined the public policies addressed through these emerging services and the types of conflicts that have arisen when the integration of these services has been attempted within the existing transportation infrastructure. Enhanced collaboration with public transit services was discussed because such services frequently form the backbone of transportation alternatives to driving alone.

### **Lunch Talk with Colin Hughes and Mia Birk**

The lunch talks on day two focused on public bikesharing. Colin Hughes, Director of National Policy and Project Evaluation at the Institute for Transportation and Development Policy (ITDP), posed the question: "What is the best bikesharing system model?" and provided performance metrics from numerous bikesharing programs. Mr. Hughes identified seven cities that were considered to have "world-class" bikesharing systems based on their performance according to two metrics: 1) trips per resident and 2) trips per bikesharing bicycle. The only North American city that was considered *world-class* in this context was New York City's Citi Bike program. Following Mr. Hughes, Mia Birk, President of Alta Planning and Design and author of *Joyride*, discussed five keys to bikesharing success: 1) considering bicycling as a transportation mode, not merely a sport; 2) engaging communities and adopting and implementing visionary, comprehensive plans for bicycle integration; 3) developing an extensive network of quality bikeways; 4) focusing on women; and 5) bringing together the right combination of political leaders, community advocates, city staff, and outside individuals. She spoke to the importance of public-private partnerships, real-time monitoring and data analysis, communication, and a seamless user experience.

### **Industry Breakout Report Back**

Following the lunch talk, summit attendees reconvened for an "Industry Breakout: Report Back" plenary session. Moderator Dave Brook, a carsharing consultant, solicited takeaway points from previous industry sessions from each panelist, as well as feedback from the audience.

## Carsharing

Jason Pavluchuk, President of Pavluchuk and Associates, highlighted the issues of parking, data needs, and creating industry standards in carsharing. Business models within the carsharing industry are diverse as there are many ways to own assets and to provide services. This results in common concerns, along with unique points of view (e.g., business models). Mr. Pavluchuk noted that parking presents an issue, as it is at a cost and demand premium in urban settings where carsharing is most widely used. Larger for-profit carsharing companies have more resources than nonprofits to secure dedicated urban parking spaces. Regarding the question of whether carsharing takes people off the road or simply off of public transit, there are certain times when taking people off of crowded public transit routes can be a positive. Mr. Pavluchuk emphasized the need for more data and data sharing to enhance transportation network understanding. Additionally, he drew upon discussions throughout the summit on insurance and on leveling the carsharing industry playing field. Finally, Mr. Pavluchuk noted that there is a need for definitions and industry-wide standards on tax rules in federal and state law. Ideally, parties within the carsharing industry should find a solution among themselves rather than waiting for government to act.

## Bikesharing

Michael Jones, CEO of Alta Planning and Design, discussed the impact of helmet regulations on public bikesharing. Strict helmet regulations often result in notably lower bikesharing use. Mr. Jones shared cases where regulators and the bikesharing industry worked closely to support bikesharing operations and mitigate any negative impact of bicycle helmet laws, while also ensuring public safety. Key questions include: "How does government manage mandatory helmet laws, and logically how could helmets be provided at bikesharing stations?" Mr. Jones also mentioned the trade-off between service levels, dependability and cost. Keeping a station stocked with bicycles increases service costs, but that action is necessary for a better user experience. In terms of social equity and expansion in areas that generate fewer trips (e.g., suburbs), bikesharing companies would need some kind of subsidy. To expand bikesharing operations in partnership with public transit, the bikesharing system could benefit from an integrated fare card.

## Ridesharing and On-Demand Ride Services/TNCs

Melissa McMahon, Transportation Demand Management (TDM) Field Coordinator for Arlington County Commuter Services, reflected that the government should not obstruct innovation but rather act more as a platform or utility than as an operator. Given budget constraints, public transit agencies might find partnering with ridesharing/on-demand ride service operators as mutually beneficial in meeting user demand. In dense urban environments, curb space policies are often a roadblock to ridesharing operations and pose a problem for picking up and meeting passengers. A common question in the effort to reduce VMT/VKT is,

"Are TNCs helping people to reduce trips or potentially generating new trips?" Ridesharing operators, on-demand ride services/TNCs, and local governments need to share data to answer important questions like this.

### **Afternoon Pick-Your-Segment**

In the afternoon, participants were able to select from one of the four afternoon panel discussions on topics of education and outreach; insurance, and challenges and opportunities for increasing ridesharing use; and bikesharing funding.

### **Education, Outreach, and Public Engagement**

Speakers in the "Education, Outreach and Public Engagement" session highlighted strategies for raising the visibility of shared-use mobility services. Social media was identified as especially critical. Moderator John Williams, President and Founder of Scoville PR, posed a series of questions to the panel, while allowing for open audience input. Panel members included: Wendy Duren, Program Director of Arlington Transportation Partners; Rick Hutchinson, CEO of City CarShare; Barbara Laurenson, Program Coordinator at the Metropolitan Transportation Commission (MTC) for the San Francisco Bay Area; Creighton Randall, Executive Director of Buffalo CarShare; and Caroline Samponaro, Senior Director of Campaigns and Organizing for Transportation Alternatives. Market segmentation was noted as an important strategy, yet a complex one in fostering education and outreach. Ultimately, market segmentation splits a marketing budget. It also requires that staff members are comfortable "code switching" in their outreach approach and use of language/rhetoric. To scale shared-use vehicle services, it is critical that staff members be culturally sensitive in their communications. Finally, it is important that operators approach growth cautiously and do not overdo their efforts (e.g., vehicle placement, marketing, etc.). It is possible to spread a service or outreach campaign too thin. This can lead to messages that "lump everyone together" and perhaps miss the mark altogether. Thus, a more targeted and cautious approach to growth and communications is highly recommended.

### **Insuring Shared-Use Mobility Systems**

Participants in the session "Insuring Shared-Use Mobility Systems" reviewed challenges to providing coverage for shared-use mobility services and identified successful steps that have already been taken. Insurance company representatives on the panel included Carol Csanda, Director of Strategic Resources for State Farm Insurance and Scott Nelson, CEO of Mile Auto Insurance. Ms. Csanda and Mr. Nelson cited data openness and accessibility as particularly vital in creating informed solutions to meeting consumer demand for shared-use mobility services. Additional panelists included: Kevin McLaughlin, President of AutoShare; Chris Shultz, Deputy Commissioner of the California Department of Insurance; and, Jeffrey Ulmer, Senior Vice President of RT Specialty. Guy Fraker moderated this discussion. Given the diversity of the panel, so were the perspectives shared. While all expressed support for shared-use mobility, the degree of support ran the full spectrum from somewhat cautious to enthusiastic. Included in the comments of every panelist was an undisputed request for collaboration in the form of data

sharing on claims histories to removing the uncertainty associated with shared-use mobility liability and risk. The panel urged participants to work together to move insurance from being a capital drain to a facilitator of accelerated growth.

### **Opportunities and Challenges of Increasing the Use of Ridesharing**

An interactive session on the opportunities and challenges of increasing the use of ridesharing was held during a breakout session sponsored by the Ridesharing Institute. Larry Filler facilitated a wide-ranging discussion with session participants who were challenged to consider strategies for encouraging greater ridesharing use and to help deliver the benefits of this mode. Lack of federal support for ridesharing and the ensuing difficulty in supporting new initiatives and innovations were discussed. Some participants noted that innovation has taken place at the local level, but these advancements had not been made available to practitioners or others nationwide. While no specific conclusions were drawn with respect to strengthening the ridesharing industry, it was agreed that: 1) greater emphasis on ridesharing is needed; 2) there are many avenues for heightening ridesharing use (for example, federal tax benefits for carpooling); and 3) the federal government must collaborate with local governments and agencies to support ridesharing.

### **Bikesharing Funding 2.0**

The final bikesharing session, “Funding 2.0,” examined the current state of government funding for bikesharing and methods that operators are employing to achieve economic viability. Tyler Frisbee, Congressman Earl Blumenauer’s Legislative Assistant, led the conversation that included Matt Sandstrom, Mobility Division Manager and Detroit Area Clean Cities Coordinator for the Clean Energy Coalition; Karen Schkolnick, Air Quality Program Manager for the Bay Area Air Quality Management District; and Josh Squire, CEO of CycleHop. While it was stressed that bikesharing is a form of public transportation and, therefore, cities should have some investment in their systems, it was also recognized that governments have increasingly diminishing budgets for capital projects like bikesharing. Thus, in addition to examining government funding opportunities like MAP-21, the panel discussed various ways programs are attempting to procure sponsorship and investment, in addition to generating revenue through user fees and memberships.

### **The Future of Shared-Use Mobility**

The summit concluded with a focus on the future of shared-use mobility. Innovations and visions in the areas of infrastructure, technology, and design were presented. Craig Scott, Product Planning Manager for Toyota, showed a video of Toyota’s Harmonious Video Network (HA:MO Navi) concept. HA:MO Navi combines various transportation modes such as cars, buses, and trains to optimize a customer’s route according to their preferences. Peter Torrellas drew on his experience as Chief Technology Officer of Siemens to share his knowledge of where automation and optimization in transportation are progressing. Mr. Torrellas pointed out that until the summit there had, ironically, been little sharing among shared-use mobility stakeholders. He explained that shared-use mobility would greatly benefit through the sharing of policy

frameworks and lessons learned from program implementation. Using what he called “policy archetypes,” cities would be able to mold general policy considerations into something that fit the unique needs of their urban environment. In regards to multi-modal integration through smartphones, he argued that it was unlikely that the private sector would create profitable platforms that are “modal agnostic” and capable of routing, scheduling, and transacting trips. Instead, he suggested that cities come together to foster an innovation ecosystem of actors that could contribute to such a system through funding and data transparency. Geoff Wardle, Director of Advanced Mobility Research at the Art Center College of Design, spoke about the importance of tailoring design to increase the desirability of any transportation mode, as well as the potential future for autonomous vehicles in shared-use mobility. Dan Sturges, a transport designer and visionary, moderated this panel.

In her final remarks, Susan Shaheen stressed the need for continuing the momentum initiated at the summit to successfully affect large-scale political, societal, and behavioral changes. A subsequent shared-use mobility workshop was held at the annual Transportation Research Board (TRB) meeting on January 12, 2014, titled: “Innovations in Shared-Use Mobility and Transportation Demand Management: Trends and Policy Updates.”

The next summit, Innovation in Mobility Public Policy Summit,” will take place on June 10-11, 2014 in Washington, D.C.

Event, news, and research updates are posted on the Shared-Use Mobility Center’s website at: [www.sharedusemobilitycenter.org](http://www.sharedusemobilitycenter.org).

### **III. Key Public Policy Considerations**

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While each of the shared-use modes had their own public policy issues specific to their sector, there were a handful of overarching policy topics that shared-use mobility should address in the immediate future. The summit served as an opportunity to identify those issues and define how to best respond to and resolve them. Three key policy considerations include:

- 1) The need for consistent shared-use definitions and standards;
- 2) Public funding for shared-use mobility; and
- 3) Public transit integration.

## **The Need for Consistent Shared-Use Definitions and Standards**

In the future, it is important that there is a consistent vocabulary with the same definitions to yield effective public policy. Modes commonly considered to be part of the shared-use mobility ecosystem are defined in the following table.

<b>C a r s h a r i n g</b>	
Round-trip/Classic	A fleet of automobiles used for round trips that require users to pay by the hour and/or mile.
Peer-to-Peer	The shared use of a privately owned vehicle, typically managed by a third party.
One-way	An operator-owned fleet of automobiles used for point-to-point trips, facilitated through street parking agreements, that usually require users to pay by the minute.
Fractional Ownership	Individuals sublease or subscribe to a vehicle owned by a third party and share use of that vehicle.
<b>B i k e s h a r i n g</b>	
Public	A fleet of bicycles used primarily for point-to-point trips that require users to pay a fee in order to receive an unlimited number of rides within a time interval (e.g., 30 minutes)
Peer-to-Peer	A bicycle that is rented or borrowed from individuals via a mobile/web application or a bike rental shop
Closed-Community	A fleet of bicycles placed within a campus--business or institutional--for private use by campus persons, normally for roundtrip
<b>R i d e s h a r i n g</b>	
Carpooling	Grouping of travelers into a privately-owned vehicle, typically for commuting
Vanpooling	Commuters traveling to/from a job-center sharing a ride in a van
Classic Real-Time	A web or mobile application that matches drivers and passengers based on their destination before the trip starts
<b>O n - D e m a n d R i d e s h a r i n g</b>	
Transportation Network Companies (TNCs)	A service that allows passengers to connect with and pay drivers who use their personal vehicles for pre-arranged trips facilitated through a mobile application
On-Demand Professional Driver Services	A service that enables passengers to find, hail, and, in some cases, pay for a professional driver (taxi or black car) through a mobile application in real-time
<b>S c o o t e r S h a r i n g</b>	
An operator-owned fleet of motorized scooters made available for roundtrip or one-way use that usually require users to pay by the hour or minute for use	
<b>S h u t t l e &amp; J i t n e y S e r v i c e s</b>	
A privately-owned bus service for community or commuter transportation purposes	

## **Public Funding for Shared-Use Mobility**

A clear theme among many of the summit panelists was the notion that public funding for shared-use transportation projects will be likely to continue to decrease before it increases. Thus, it was widely agreed that other means to generate capital and ongoing revenue—user fees, sponsorship, private investment, donations, and otherwise—will need to be further employed in the coming years. Pricing structures and business models were discussed throughout the summit that could help to generate additional revenue for service providers (e.g., sponsorship models). Furthermore, the concept of bridge financing for bikesharing programs was introduced as a potential means of generating the necessary capital to pay for equipment and implementation.

Also posited during the summit was the belief that in order to maintain or even increase public investment in shared-use transportation systems, the dialogue needs to shift away from politically-charged phrases toward pragmatic, widely agreed upon ones, such as *job creation*, *increased efficiency*, and *economic growth*. Establishing shared-use mobility as a model of both political parties will open up opportunities for funding and reduce implementation and operational barriers in the future.

Ultimately, participants agreed that greater public subsidy is needed to support shared-use mobility services so that they can maximize their impact in reducing private automobile use.

## **Public Transit Integration**

Integrating shared-use services with government-owned public transit services is being coined as one of the next frontiers in urban transportation. Such integration is a means to help solve the *first-and-last mile problem*, thereby increasing the value of public transportation and shared-use mobility services. While a key feature of bikesharing and one-way carsharing is point-to-point mobility that can address the first-and-last problem associated with public transit, there is a need for better integration with public transit systems to encourage higher ridership through multi-modal integration. To better incentivize public transit use, summit participants agreed that the commuter tax break that covers public transit should be extended to include tax benefits for shared-use modes.

Sharon Feigon of the Center of Neighborhood Technology shared her experiences in creating one of the few public-private partnerships in shared-use mobility between I-Go Carsharing in Chicago and the Chicago Transit Authority. In 2009, the two entities partnered to offer a joint carsharing and public transit pass, and this was viewed as a notable success. Despite this achievement, few other North American shared-use mobility service providers and public transit authorities have followed suit due to lack of incentives and institutional barriers. As technology develops, costs decrease, and policymakers and entrepreneurs appreciate the positive

implications of integrating public transit with shared-use systems, we will move closer to an integration breakthrough.

## IV. Facilitating Multi-Modality: A Key Summit Theme

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As mentioned in the previous section, perhaps the most pervasive theme throughout the summit was multi-modal integration. Largely due to shifts in trip types, a range of panelists identified the need for a seamless transition among transportation modes via one platform and payment structure. Such integration would enhance the convenience of public transit and shared-use mobility services, and enable users to seamlessly complete trips without reliance on privately owned automobiles. Furthermore, by creating a platform that enables users to access several shared-use modes and public transportation, the utility of an integrated system is increased, thus, increasing overall system efficiency and encouraging more individuals to use these combined services—leading to more “car light” and “car free” lifestyles.

Panelists such as Timothy Papandreou, Director of Strategic Policy and Planning for the San Francisco Municipal Transportation Agency, examined the possibilities enabled by public transit integration. He identified the smartphone as a means of facilitating multi-modal access. Employing her/his smartphone, a user could access information on available modal options nearby, estimate the time each mode would take to get to his/her destination, and the costs. Next, the user could choose the most appropriate mode, select it, and pay for it. According to many of the panelists, such an option is on the horizon, and mobile applications, like RideScout, that allows users to view available transportation options and projected trip times have already taken the first steps.

Note: Despite these technological advances, it is important to note that *equity considerations* remain a concern for open access among those without smartphones and credit cards, particularly in the short term.

### Primary Hurdles and Next Steps to Multi-Modality

Many significant hurdles and issues remain for an effective multi-modal transportation platform. One issue identified during the summit is that a large portion of the population does not have access to a smartphone, thus, such a medium could not be considered socially equitable. There are also technology barriers associated with adjusting payment systems to be compatible with one platform. Many public transportation service providers do not have the financial incentive to alter the means by which they accept payment. Splitting revenue among different companies and/or organizations in a “single-pass, multi-access” RFID-like environment remains a challenge. Finally, there has been a lack of political will to push progressive transportation policies, like

public transit integration, amidst limited government funding for such projects.

These factors have combined to inhibit multi-modality. However, studies are finding that Millennials—the biggest and most diverse generation in America’s history—are multi-modal travelers. Further, Baby Boomers are beginning to retire and will need mobility options as they age. Thus, the demand for multi-modal integration is significant. To address these primary hurdles, summit attendees’ proposed increased communication among system stakeholders, joint-fare payment arrangements, an updated “more flexible” policy framework, and improved relationships with elected officials.

## V. Conclusion

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Economic, environmental, and social forces have pushed shared-use mobility from a niche topic to the mainstream. Its transformative role in urban mobility has become a focus of conversation among new and prospective service providers and public agencies at all levels of governance. The 2013 Shared-Use Mobility Summit marked the beginning of collective leadership in this emerging space. The summit gave leaders and stakeholders a unique opportunity to communicate and address the most compelling issues and opportunities in shared-use mobility. By examining key policy considerations within plenary sessions, followed by industry sector-specific panel discussions, attendees were exposed to a full spectrum of shared-use mobility. This landscape facilitated the sharing of ideas, the development of relationships among attendees, and the initiation of new efforts.

The two-day summit highlighted some of the most pressing public policy, technical, and operational issues in urban mobility. The most prominent issues identified at the summit were:

- 1) The need for government to recognize shared-use mobility as a prominent component of transportation networks via new policy;
- 2) The importance of addressing social equity in system planning and business model development;
- 3) The need and challenges to scaling shared-use systems (e.g., insurance);
- 4) Parking and insurance remain obstacles to shared-use mobility expansion;
- 5) The need to balance data sharing (open data) and privacy on both individual and company levels; and
- 6) The future of shared-use mobility (e.g., the role of autonomous vehicle technology in scaling and delivering services in a variety of land use settings).

The diverse audience played an integral role in generating a substantive and spirited dialogue on topics presented, culminating in a great deal of excitement and value for attendees.

Perhaps the liveliest dialogue of the entire summit occurred during the spotlight panel on “The Future of Mobility and Transportation Policy and Planning” in which Chicago Department of Transportation Commissioner Gabe Klein, Legislative Assistant in the Office of Congressman Blumenauer, Tyler Frisbee, and president of Pavluchuk & Associates, Jason Pavluchuk, discussed the pressing issues facing shared-use mobility. The conversation jumped between social equity planning, dwindling government budgets for capital projects, and shifting the partisan-based dialogue associated with shared-use systems.

A number of key trends that set the backdrop for the summit included: 1) demographic shifts, 2) recent declines in private vehicle ownership, 3) reduction of gas tax revenue resulting from increased fuel efficiency and a reduction in VMT/VKT, and 4) the growth of shared-use mobility within the broader sharing economy.

The summit underscored the need for more precise definitions of shared-use mobility variants given increasingly blurring lines between existing and emerging transportation modes. As shared-mobility companies continue to expand and operate alongside taxis, limousines, and rental car services, more precise designations will likely be needed to advance public policy. The summit also highlighted the shared-use sub-markets and the need for industry-wide standards to advance beneficial legislation, guide regulation, and enhance public safety. In addition to policy guidance, developing industry-wide definitions will aid sector growth by providing users with greater understanding of the spectrum of shared-use mobility services available.

Shared-use mobility has been documented to have a number of environmental, social, and transportation-related benefits including cost savings, convenience, and increased accessibility (improving access, encouraging multi-modality, and expanding the catchment area of public transportation). Over the past twenty years, shared-use mobility services have continued to grow throughout North America and around the world. As technology and design continue to evolve, shared-use mobility will continue to play a key role in the multi-modal fabric of our transportation network by employing advanced technologies to optimize the end-user’s itinerary for the lowest cost, quickest, shortest, and most environmentally efficient routing.

## VI. Developments Emerging from the 2013 Summit

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There were two key developments that emerged directly from the 2013 Shared-Use Mobility Summit. They include the next summit to be held in Washington, D.C. in June 2014 and the formation of the Shared-Use Mobility Center.

### **Innovation in Mobility Public Policy Summit | Washington, D.C. - June 10-11, 2014**

Following the Shared-Use Mobility Summit, a group of organizers and attendees decided it was pivotal to capitalize on the momentum generated by the summit and to organize a follow-up event. The 2014 Innovation in Mobility Public Policy Summit places an emphasis on steps forward in terms of what policies are needed to advanced shared-use mobility and how best to influence elected officials to implement such policies.

### **The Shared-Use Mobility Center (SUMC)**

In addition to the 2014 Innovation in Mobility Public Policy Summit to be held in June 2014, industry leaders including: Sharon Feigon, SUMC; Susan Shaheen of TSRC, UC Berkeley; Scott Bernstein, Center for Neighborhood Technology; and David Bragdon, Transit Center decided that a broader industry group should be formed—now the Shared-Use Mobility Center—based on developments at the Shared-Use Mobility Summit. This newly formed center is focused on expanding mobility choices for people and communities by enriching and integrating shared-use mobility services through collaboration and innovation. Shared-use mobility is defined as mobility services that are shared among users including traditional public transportation; taxis and limos; ridesharing; carsharing; on-demand services/TNCs; bikesharing; scooter sharing; shuttle services; neighborhood jitneys; and commercial delivery vehicles providing flexible goods movement. The center's mission is to advance transportation policy and practice in shared-use mobility. More information can be found at [www.sharedusemobilitycenter.org](http://www.sharedusemobilitycenter.org).

## VII. Acknowledgements

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## VIII. Partners and Supporters

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American Public Transit Association, Bikeshare.com, Carsharing Association, Federal Highway Administration, get2kno, ITS America, ITS Berkeley, meshlabs, Mineta Transportation Institute, Metropolitan Transportation Commission, peers, Public Transit Future Meetup, Ridesharing Institute, Rockefeller Foundation, Scoville PR, San Francisco Metropolitan Transportation Agency, Shareable, Sustainable Mobility & Accessibility Research & Transformation, TeamRed, Transportation for America, Transportation Research Board, University of California Transportation Center

## IX. Sponsors

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**Platinum:** Enterprise, StateFarm, and Toyota

**Gold:** Bay Area Air Quality Management District, car2go, CycleHop, ITDP, Smoove, and Zipcar

**Silver:** Abrams Carsharing Advisors, Alta Bicycle Share, Association for Commuter Transportation, AutonomouStuff, Caltrans, Capitol Corridor, Cubic, DriveNow, get2know, Intelligent Transportation Society for California, Metavera, Mineta Transportation Institute, Nissan, PBSC, Schneider Electric, TechAssure, University of California Transportation Center, and vRide

**Bronze:** Carpooling.com, Lyft, Toole Design Group, RidePal, and Rent Centric

## X. TSRC/ITS Berkeley/UC Berkeley Host Organizing Committee

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Susan Shaheen, Madonna Camel, Helen Bassham, Adam Cohen, Josh Steiner, Chris Cosgrove, Phyllis Orrick, Sarah Yang, and Laura Melendy

## XI. 2013 Shared-Use Mobility Summit Program

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### **October 10 - Day 1**

**8:30 - 9:00**

Summit Attendee Sign-in and Continental Breakfast (Coffee, Pastries, Juice)

Grand Ballroom Foyer

**9:00 – 9:15**

#### **Opening Remarks**

Grand Ballroom

#### **Welcome to the Shared-Use Mobility Summit**

Speakers: Laura Melandy, Assistant Director, Institute of Transportation Studies, University of California, Berkeley

Supervisor Scott Wiener, San Francisco Board of Supervisors, District 8

**9:15 - 10:00**

#### **Setting the Stage: Big Trends, Definitions, and Policies**

Grand Ballroom

This session sets the stage for the summit with an overview of key trends, definitions and developments, and background on the current and emerging policy arena in shared-use mobility.

Speakers: Sharon Feigon, CEO, Alternative Transportation for Chicagoland, Inc.

Timothy Papandreou, Deputy Director, San Francisco Municipal Transportation Agency (SFMTA)

Susan Shaheen, Adjunct Professor and Co-Director, Transportation Sustainability Research Center, UC Berkeley

**10:00 - 11:15**

#### **Shared-Use Mobility Success Stories**

Grand Ballroom

In this session, speakers from key cities in the U.S. and across the globe discuss insights from their experiences in fostering and implementing shared-use mobility services.

Moderator: Susan Zielinski, Managing Director, SMART, University of Michigan

Speakers: Iván De la Lanza, Director of Bicycle Mobility Strategy, Mexico City

Dan Emerine, Transportation Planner, D.C. Office of Planning

Ed Reiskin, Director of Transportation, San Francisco Municipal Transportation Agency (SFMTA)

Gilles Vesco, Vice Mayor, City of Lyon

**11:15 - 11:30**

Break - Foyer

**11:30 - 12:45**

**The Sharing Economy: Scaling the Shared-Use Mobility Marketplace**

Grand Ballroom

This session will address one of the key questions facing the shared-use mobility sector today—scale. Speakers from the public, private, and non-profit sectors will share their perspectives on market potential, obstacles, and opportunities.

Moderator: Lisa Gansky, Entrepreneur and Author, The Mesh

Speakers: Alain Ayotte, Bikesharing Specialist

Natalie Foster, Co-Founder, Peers

Rick Hutchinson, CEO, City CarShare

Gabe Klein, Commissioner, Chicago Department of Transportation

**12:45 - 1:30**

Lunch Talk

Grand Ballroom

Introductory Remarks: Tony Simopoulos, Founder and President, Metavera Solutions Inc.

**Speaker: Lisa Gansky, Entrepreneur and Author of The Mesh**

Lisa Gansky, Bay Area native and thought leader of the sharing economy, will share her views on the road ahead for shared-use mobility.

**1:30 - 3:30pm**

**Concurrent Bikesharing Mobile Workshop (Hosted and Organized by Bikeshare.com)**

Kansas Waugh, Bay Area Bike Share Project Director, and Heath Maddox, Senior Planner at SFMTA, will lead this mobile workshop that examines the Bay Area's newest public transportation system, Bay Area Bike Share, and San Francisco's growing bike infrastructure.

**1:30 - 3:00**

**Governance 2.0 (“Micro” Level): Shared-Use Policy Approaches for City and County Governance**

Grand Ballroom

This session begins the summit's first panel discussion on the role of policy in shared-use mobility, highlighting city and county governance approaches. The panel is comprised of experts and thought leaders from industry, government, public transportation, and academia.

Moderator: Ray Traynor, Program Manager, Executive Team, San Diego Association of Governments (SANDAG)

Speakers: Kevin Desmond, General Manager, King County Metro Transit

Guy Fraker, Co-Founder, get2know

Arun Sundararajan, Professor of Information, Operations, and Management Sciences, NYU Stern School of Business

Marzia Zafar, Director of the Policy and Planning Division, California Public Utilities Commission

**3:00 - 3:30**

Afternoon Break / Networking Opportunity / Foyer Table Tops Exhibit

**3:30 - 5:00**

**The Impacts of Shared-Use Mobility Services**

Grand Ballroom

Impacts and understanding from an array of shared-use mobility services is the focus of this session. Insights on social and behavioral response to bikesharing, carsharing, and ridesharing services from leading researchers in the field will be shared, ranging from citywide to global-level analyses. Speakers include academics, practitioners, and government representatives.

Moderator: Nancy Chinlund, Program Manager, Division of Research and Innovation, California Department of Transportation

Speakers: Jennifer Dill, Professor, Portland State University

Elliot Martin, Assistant Research Engineer, TSRC, Institute of Transportation Studies, UC Berkeley

Nick Ramfos, Director, Commuter Connections

Bodo Schwieger, Founder, Team Red, Germany

Susan Shaheen, Adjunct Professor and Co-Director, TSRC, Institute of Transportation Studies, UC Berkeley

**5:00**

Concluding Remarks

**5:00 - 7:00**

Dinner Break

On Your Own

**7:00 - 8:30**

**Spotlight Evening: The Future of Mobility and Transportation Policy and Planning**

Grand Ballroom

This Spotlight Evening panel is brought to us by generous support from the Rockeller Foundation and Transportation for America (T4America). The panel discussion--moderated by T4America--focuses on macro-governance issues and on the future of mobility and transportation policy and planning. Speakers include representatives from a major U.S. city, Congress, and the federal government. Please join us for coffee, tea, light refreshments and an engaging discussion after dinner.

Moderator: David Goldberg, Communications Director, Transportation for America

Speakers: Tyler Frisbee, Legislative Assistant, Office of Congressman Blumenauer

Gabe Klein, Commissioner, Chicago Department of Transportation

Jason Pavluchuk, President, Pavluchuk & Associates

## **October 11 - Day 2**

**8:00 - 9:00**

Grand Ballroom Foyer

Continental Breakfast (Coffee, Pastries, Juice)

**8:30 – 8:35**

Welcome Back

**8:35 – 10:05**

### **Fostering Multi-Modal Integration and Public Transit Connections**

Grand Ballroom

This session highlights the role of public transit connections and multi-modal integration in fostering shared-use mobility. Leaders from industry, public transit, and the non-profit sector will discuss opportunities and challenges in making this reality.

Moderator: Sharon Feigon, CEO, Alternative Transportation for Chicagoland, Inc.

Speakers: Andrew Bata, Chief, Strategic Improvements and Best Practices, New York City Metropolitan Transit Authority

Art Guzzetti, Vice President - Policy, American Public Transportation Association

Mark Norman, President, Zipcar

Larry Yermack, Strategic Advisor, Cubic Corporation

**10:05 – 10:15**

Reconvene In Breakouts

**10:15 – 11:45** Parallel Sessions

### Shared-Use Mobility Panels: Industry Updates

This segment includes three panel sessions focused on shared-use mobility sector updates and policy issues.

#### **Carsharing and Personal Vehicle Sharing**

Meeting Room: Grand Ballroom

This session features industry updates from key leaders in the major categories of carsharing and personal vehicle sharing: classic roundtrip carsharing, one-way carsharing, and peer-to-peer carsharing.

Moderator: Gabriel Metcalf, Executive Director, SPUR

Speakers: Alex Benn, Chief Operating Officer, RelayRides

Ryan Johnson, Assistant Vice President, Enterprise CarShare

William Knapp, Chief Operating Officer, car2go

Kevin McLaughlin, President & Founder, AutoShare

#### **Bikesharing Operational & Policy Challenges**

Meeting Room: Jackson

From social equity to bike rebalancing to launching a new system, solutions for policy and operational challenges range widely between bikesharing programs. This session includes a brief overview of the bikesharing industry in North America followed by a discussion of policy and operational challenges and solutions with central figures from the industry.

Moderator: Matt Christensen, Managing Editor, Bikeshare.com

Speakers: Alison Cohen, Director of Bike Sharing Services, Toole Design Group

Bill Dossett, Executive Director, NiceRide MN

Claire Hurley, Field Operations Manager, B-cycle

Kansas Waugh, Project Director, Bay Area Bike Share

#### **Ridesharing / Transportation Network Companies (TNCs)**

Meeting Room: Mason I/II

This session features industry updates from key leaders in the major categories of ridesharing and transportation network companies including: real-time ridesharing, TNCs, shuttle services, and long-distance carpooling.

Moderator: Larry Filler, President, LF Consulting & Ridesharing Institute

Speakers: Odile Beniflah, Senior Product Manager, Carpooling.com

Richard Bryce, Executive Vice President, Carma

David King, Assistant Professor of Architecture, Planning, and Preservation, Columbia University

John Zimmer, Chief Operating Officer and Co-Founder, Lyft

Anna Walters, Transportation Specialist, Google

11:45 – 12:30

### **Lunch Talk**

Grand Ballroom

Introductory Remarks: Colin Hughes, Director of National Policy & Project Evaluation, Institute for Transportation and Development Policy

Speaker: Mia Birk, President, Alta Planning + Design

Portland native, author, and cycling/bikesharing “guru,” Mia Birk, will share her thoughts on bikesharing and the role that this innovative mode plays in cities and future mobility.

12:30 – 1:45 Parallel Sessions

### **Shared-Use Mobility Sector Breakouts**

The purpose of the sector breakout sessions is to encourage discussions among like operators and stakeholders, particularly around regulatory barriers, opportunities, and bikesharing technology.

Carsharing and Personal Vehicle Sharing: Encouraging Policy and Multi-Modal Collaboration

Meeting Room: Grand Ballroom

This breakout session features leaders from the major sectors of carsharing and personal vehicle sharing including: classic roundtrip carsharing, one-way carsharing, and peer-to-peer carsharing. Each speaker will share his/her views on the role of public policy and multi-modal collaboration in promoting vehicle sharing.

Moderator: Alan Woodland, Executive Director, The CarSharing Association

Speakers: Jennifer Dotson, Executive Director, Ithaca CarShare

Mark Norman, President, Zipcar

Rich Steinberg, CEO, DriveNow USA

Karen Worminghouse, Director, eGo CarShare

Sam Zaid, Founder & CEO, Getaround

### **Bikesharing Equipment and Technology: The Next Steps**

Meeting Room: Jackson

Finding the right tool for the job is integral to bikesharing program success. This panel examines the latest in bikesharing technology and what might be next in terms of fare integration, reciprocity among programs, and other issues and opportunities.

Moderator: Mitch Vars, I.T. Director, NiceRide Minnesota

Speakers: Gian-Carlo Crivello, Business Development Director, Public Bike System Company

Lee Jones, Director of Sales, B-cycle

Dedrick Roper, Electric Bikeshare Project Manager, City CarShare

Ryan Rzepecki, CEO, Social Bicycles

### **Ridesharing / Transportation Network Companies: Encouraging Policy and Multi-Modal Collaboration**

Meeting Room: Mason I/II

This session highlights the role of policy and multi-modal collaboration in ridesharing and for transportation network companies. Leaders in this sector will outline key issues. Sectors representatives include vanpools, long-distance ridesharing, private shuttles, and a transportation network company.

Moderator: Eric Schreffler, Founder and CEO, ESTC

Speakers: Nathalie Criou, CEO, RidePal

Ryan Johnson, Assistant Vice President, Zimride

Jon Martz, Vice President, V-Ride

Carli Paine, Transportation Demand Management (TDM) Project Manager, San Francisco Municipal Transportation Agency

Sunil Paul, Founder and CEO, Sidecar

1:45 – 1:55

Reconvene in Grand Ballroom

1:55 – 2:25 Plenary Session

### **Industry Breakout: Report Back**

Grand Ballroom

During this plenary session, thought leaders in carsharing, bikesharing, and ridesharing/transportation network companies report back on highlights from the breakout discussions.

Moderator: Dave Brook, Carsharing Consultant

Speakers: Michael Jones, CEO, Alta Planning + Design

Melissa McMahon, Transportation Demand Management (TDM) Field Coordinator, Arlington County Commuter Services

Jason Pavluchuk, President, Pavluchuk & Associates

2:25 – 2:35

Reconvene in Breakout Rooms

2:35 – 3:35 Parallel Sessions

Afternoon Pick-Your-Segment

### **Insuring Shared-Use Mobility Services**

Meeting Room: Grand Ballroom

This session examines past and present challenges to insuring shared-use mobility systems. It discusses the types of insurance recommended for shared-use services, shared-use actuarial data, and common methods for determining premiums. The discussion also includes recommended strategies for overcoming insurance obstacles.

Moderator: Guy Fraker, Co-Founder, get2kno

Speakers: Carol Csanda, Director of Strategic Resources, State Farm Insurance

Kevin McLaughlin, President, AutoShare

Scott Nelson, CEO, Mile Auto Insurance

Chris Shultz, Deputy Commissioner, California Department of Insurance

Jeffrey Ulmer, Sr. Vice President, RT Specialty

### **Education, Outreach, and Public Engagement**

Meeting Room: Mason I/II

This panel discusses mechanisms for improving education and outreach with stakeholders, governments, and the public. This session also features recommended communication and marketing strategies for shared-use mobility programs including social media strategies.

Moderator: John Williams, President – Founder, Scoville PR

Speakers: Wendy Duren, Program Director, Arlington Transportation Partners

Rick Hutchinson, CEO, City CarShare

Barbara Laurenson, Program Coordinator, Metropolitan Transportation Commission (MTC) for San Francisco Bay Area

Creighton Randall, Executive Director, Buffalo CarShare

Caroline Samponaro, Senior Director of Campaigns and Organizing, Transportation Alternatives

### **Bikesharing: Funding 2.0**

Meeting Room: Jackson

Funding mechanisms for bikesharing are evolving and becoming more numerous; however, funding acquisition is still a formidable task. This panel examines the different ways bikesharing programs are identifying funding for capital investment in equipment, operations, and expansion.

Moderator and speaker: Tyler Frisbee, Legislative Assistant, Office of Congressman Blumenauer

Speakers: Matt Sandstrom, Mobility Division Manager and Detroit Area Clean Cities Coordinator, Clean Energy Coalition

Karen Schkolnick, Air Quality Program Manager, Bay Area Air Quality Management District

Josh Squire, CEO, CycleHop

### **Ridesharing Institute Breakout Discussion**

Meeting Room: Sansome

This session will be a facilitated discussion to examine the opportunities and obstacles to doubling ridesharing within the decade.

Moderator: Larry Filler, President, LF Consulting & Ridesharing Institute

3:35 – 3:45

Reconvene in Grand Ballroom

3:45 – 5:00 Plenary Session

### **The Future of Shared-Use Mobility**

Grand Ballroom

This final plenary session includes highlights from the summit and considers the future of shared-use mobility, multi-modal integration, and potential impacts on transportation planning and policy, as well as brief closing summit remarks.

Moderator: Dan Sturges, Transport Designer & Visionary

Speakers: Ann Flemer, Deputy Executive Director, Metropolitan Transportation Commission (MTC) for San Francisco Bay Area

Craig Scott, Product Planning Manager, Toyota

Peter Torrella, Chief Technology Officer, Siemens

Geoff Wardle, Director of Advanced Mobility Research, Art Center College of Design

# SHARED-USE MOBILITY SUMMIT

