



# International Conference on Demand Responsive Transportation: Paratransit from Dial-a-Ride to Technology Enabled Services

September 26-28, 2016 The Village at Breckenridge Breckenridge, CO

Organized by Transportation Research Board

**Sponsored by Standing Committee on Paratransit (AP060)** 

TRANSPORTATION RESEARCH BOARD

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The **Transportation Research Board** is one of seven major programs of the National Academies of Sciences, Engineering, and Medicine. The mission of the Transportation Research Board is to increase the benefits that transportation contributes to society by providing leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal. The Board's varied committees, task forces, and panels annually engage about 7,000 engineers, scientists, and other transportation researchers and practitioners from the public and private sectors and academia, all of whom contribute their expertise in the public interest. The program is supported by state transportation departments, federal agencies including the component administrations of the U.S. Department of Transportation, and other organizations and individuals interested in the development of transportation. www.TRB.org

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TRB sincerely appreciates and thanks the following organizations for their generous support of the DRT Conference





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# Sunday, September 25

3:00 p.m. - 6:00 p.m., *Atrium Lobby* Registration

5:00 p.m., *Hotel Lobby* Informal Gathering

# Monday, September 26

7:30 a.m. - 5:00 p.m., *Atrium Lobby* Registration

7:30 a.m. - 8:00 a.m., *Miners A/B*Continental Breakfast

8:00 a.m. - 8:15 a.m., *Ten Mile*Introduction to the Conference

8:15 a.m. - 10:00 a.m., *Ten Mile* 

**Plenary Session** 

New Paradigms, Part 1: Economics, Actors and Roles

Moderator: Roger Teal, DemandTrans Solutions, Inc.

Adapting the Best Elements of the Danish Approach to Combine Several Types of Transportation

Niels Tvilling Larsen, Flex Denmark

**Public Transport Agency Opportunities and Challenges in Adopting the New Paradigms** Jeff Becker, Regional Transportation District - Denver

**Shared Mobility and Transit: What's Moving Forward, What's Lagging and Why** Bruce Schaller, Schaller Consulting

A System in Flux: Who Are the Actors Who Can Understand the Opportunity and Manage the Change Process?

Arnd Bätzner, Mobility CarSharing, Switzerland

Navigating the Entrepreneurial Landscape of Shared-use and Public Transportation Aarjav Trivedi, RideCell

New Public-Private Partnerships with TNCs for Service Delivery Andrew Salzberg, Uber

10:00 a.m. - 10:30 a.m., *Miners A/B* Break

10:30 a.m. - 12:15 p.m., Ten Mile

**Plenary Session** 

Transit + Shared Mobility: Odd Couple or Happy Marriage?

Moderator: Buffy Ellis, KFH Group, Inc.

# Living in an App-enabled World: Implications for Transit Agency Leadership, Management and Service Delivery

Bruce Schaller, Schaller Consulting

# Transit and New Shared-Use Modes: Key Questions from the Transit Agency Perspective

Brendon Hemily, Hemily and Associates

# "Leading the Care Revolution"

Feda Adra, Comlink

# **Shared Mobility and Cultural Change in Public Transit Provision**

Ria Lo, Nelson\Nygaard Consulting Associates

12:15 p.m. - 1:15 p.m., *Elk* Lunch

1:30 p.m. - 3:15 p.m. **Concurrent Sessions** 

# Session 1A, Ten Mile

### Tailoring Service to Fit the Market, Part 1: Big, Small or In-Between

Moderator: Arnd Bätzner, Mobility CarSharing, Switzerland

# Zone Based Structured Scheduling: A Case Study in Lee County, North Carolina

Jeremy Scott, North Carolina State University

# Designing for People's Needs, in Real Time: On-Demand Transit

Sarah Rienhoff, Via Transportation, Inc.

# Barriers to and Opportunities for the Implementation of Large-scale DRT Schemes - A Case Study: The United Kingdom

Barry Connor, Consultant, (retired) West Midlands Special Needs Transport (UK)

# First/Last Mile Partnership With TNC, Taxi and Van: Case Studies in Centennial, Colorado and St Peters-burg, Florida

Gabe Cohen, Lyft and Ross Silvers, PSTA

### Session 1B, Forest

### Organizational Change: A Look To The Future

Moderator: Steve Yaffe, Arlington County (ART & STAR)

# **Sustainable Demand Responsive Transit Services**

Steven Yaffe, Arlington County (ART & STAR)

# The Future of Mobility is Now: How Transit Agencies are Navigating Innovative Services and Technologies as Resources and Solutions

Will Rodman, Nelson\Nygaard Consulting Associates

# **Implementing Alternative Service Models: A Private Provider Perspective**

Dick Alexander, TransDev

# How Transit Agencies Use Taxis for DRT Service and Impacts from the Rise of TNCs

Buffy Ellis, KFH Group, Inc.

3:15 p.m. - 3:45 p.m., *Miners A/B*Break

3:45 p.m. - 5:30 p.m. **Concurrent Sessions** 

### Session 2A, Forest

Tailoring Service to Fit the Market, Part 2: What Makes Customer and Business Sense for You?

Moderator: Arnd Bätzner, Mobility CarSharing, Switzerland

One Size Does Not Fit All: Understanding When and Where to Use TNCs Compared to DRT Service Delivery Strategies to Serve Mobility Demand

Randall Farwell, Tindale-Oliver & Associates, Inc.

### DRT Services to Fill the Gap between Fixed Route and Paratransit

Kristen Mazur, San Francisco Municipal Transportation Agency (SFMTA)

Mobility Challenges in EU Low Density Areas, Trends and Solutions. Presentation of a Case Study in Delemont.

Anne Mordret, UITP Smart Platform

**Energy and Sustainability of Demand Responsive Transport** 

Stanley Young, National Renewable Energy Laboratory

Session 2B, Elk

Roundtable Discussions On Burning Topics You Select

# Roundtable A: Discovering Synergies in Health and Transportation Partnerships

- Heidi Guenin, GridWorks
- Mary Leary, US DOT FTA
- Steve Andrle, Transportation Research Board

### Roundtable B: How Do We Know What's Working? Reporting on Performance

- Yngve Westerlund, Mobistik, Sweden
- Linda Cherrington, Texas A&M Transportation Institute

# Roundtable C: Considering Open Source Software and Data Specifications - Benefits and Challenges for DRT

- Paul Sorensen, Cambridge Systematics
- Ryan Taylor, Utah Transit Authority

### Roundtable D: Mobility on Demand (MOD), Mobility as a Service (MaaS)

- Transit Partnerships with taxis and TNCs
- Automated vehicles and automated transit networks

6:00 p.m. - 7:30 p.m., *Ten Mile* **Posters & Sponsored Reception** 

Moderator: David Chia, The Collaborative, Inc.

**A Study on the Replacement of Private Cars with Shared Autonomous Electric Vehicles** Farhan Javed, University of Virginia

Paratransit Skills Assessment Reliability Study with Adults on the Autism Spectrum Cecilia Feeley, Rutgers University

**Keeping Up with Success: The Constant Refresh of Mobility Management in Marin County** Erin McAuliff, Marin Transit

**Practical Experience in the use of Technologies to Enhance Paratransit Service Delivery** Mark Mindorff, DARTS Transit

# Blythe Wellness Express: A Rides to Wellness Demonstration Project

Heather Menninger and Valerie Mackintosh, AMMA

# **Estimate of Fuel Consumption and GHG Emission Impact from an Automated Mobility District** Stanley Young, National Renewable Energy Laboratory

**GTFS-Flex Modeling of DRT Services: A Denver RTD Application** Nihit Jain, IBM Group

# The Collective DRT Services Model and Costs in Denmark's Municipalities and Health Regions Henrik Levin Høj Wiingreen, Deloitte

One Mobile Transit App for All Riders: First Mile, Last Mile Innovation Sharon Doyle, York Regional Transit and Rob Bryans, RouteMatch Software

# Tuesday, September 27

7:30 a.m. - 5:00 p.m., *Atrium Lobby* Registration

7:30 a.m. - 8:00 a.m., *Miners A/B*Continental Breakfast

8:00 a.m. - 9:45 a.m., Ten Mile

**Plenary Session** 

**Technology: The New Framework for DRT** *Moderator: Niels Tvilling, Flex Denmark* 

**Transit Redefined: Managing Public and Private Transportation with a Unified Operating System** Aarjav Trivedi, RideCell

### The "New" Economics of Demand Responsive Transit

Roger Teal, DemandTrans Solutions, Inc.

**All Components are in Place to Migrate Towards Mobility as a Service (MaaS) in Urban Areas** Johanna Taskinen, Tuup Oy

**Implementation of New Flexible Transport Solutions in the Province of Gelderland** Otto Cazemier, Mobycon, Neterlands

9:45 a.m. - 10:15 a.m., *Miners A/B*Break

10:15 a.m. - Noon **Concurrent Sessions** 

Session 3A, Ten Mile

Performance, Planning, and Service Innovation

Moderator: Linda Cherrington, Texas A&M Transportation Institute

Measuring Performance for DRT: the U.S. Experience

Buffy Ellis, KFH Group, Inc.

What We have Learned (and Continue to Learn) from the FTA Paratransit Reviews

David Chia, The Collaborative, Inc.

## Data Driven Planning: Using 1-Click Data to Assess Transportation Gaps

Paul Sorensen, Cambridge Systematics, Inc.

# **Maximizing Efficiency and Productivity of Agency Resources**

Jeff Zarr, Trapeze

### Relevant Key Performance Indicators for DRT: Scandinavian Experience

Yngve Westerlund, Mobistik, Sweden

Session 3B, Forest

### **Digital Solutions to Benefit Travelers and Service Providers**

Moderator: Chad Ballentine, Capital Metro

# Shared Mobility and the Transformation of Demand Responsive Transit: Opportunities and Complications

Colin Murphy, Shared-Use Mobility Center (SUMC)

# The Convergence of One-Click Systems, Paratransit Booking/Scheduling Software, and Mobile Technologies

Will Rodman, Nelson\Nygaard Consulting Associates

# Using Technology to Enhance the Coordination of Services for the Transportation-Disadvantaged in Multi-Provider Communities: Planning a Travel Management Coordination Center (TMCC)

Brendon Hemily, Hemily and Associates

# Mobility on Demand: Where Innovations Empower All Travelers

Gwo-Wei Torng, US DOT FTA

Noon - 1:00 p.m., *Elk* 

**Lunch with Keynote Speaker** 

Rediscover Mobility's Past, Change Mobility's Future

Peter Norton, University of Virginia Department of Engineering & Society

1:15 p.m. - 3:00 p.m., *Ten Mile* 

**Plenary Session** 

### **New Paradigms Part 2: Prospects for Implementation**

Moderator: Jeff Becker, Regional Transportation District - Denver

### **Panelists:**

# **Changing Role of Transportation Authorities and Taxi-operators in Dutch DRT-systems** Guy Hermans

# **FTA's Vision for Flexible and Connected Services and Facilitating their Adoption** Gwo-Wei Torng, US DOT FTA

# **A European Perspective on Incorporating DRT with Public Transportation** André Burri, UITP

# How the Taxicab Industry Is Adapting to Competition from Transportation Network Companies Hal Morgan, Taxicab Limousine & Paratransit Foundation

# **Opportunities and Barriers in Paratransit for Technology-enabled Cost-effectiveness Improvements** Sarah Boden

# **Developing Community Transport Services in Germany: Engaging Providers with Customers** Martin Schiefelbusch, NVBW - Nahverkehrsgesellschaft, Germany

3:00 p.m. - 3:30 p.m., *Miners A/B*Break

# 3:30 p.m. - 5:30 p.m. **Concurrent Sessions**

# Session 4A, Ten Mile

# **Open Source and Low Cost Technology**

Moderator: Niels Tvilling, Flex Denmark

# **RidePilot: Open Source Scheduling for Small Transportation Providers**

Paul Sorensen, Cambridge Systematics

# The RAMSES Platform: Empowering Rural Community Transport by Low-cost Digital Solutions

Tobia Kuttler; Technical University Berlin

# **Unlocking the Advantage of Open Source Products**

Eric Ziering, Cambridge Systematics

# **Automatic Transfer of Demand Response Trip Data between Providers**

Suzanne O'Neill, TransitPlus

# Session 4B, Forest

# **Introducing New Technology and New Concepts**

Moderator: Roger Teal, DemandTrans Solutions, Inc.

# Introduction of e-Hail in the SF Paratransit Taxi Program

Annette Williams, San Francisco Municipal Transportation Agency (SFMTA)

# **DRT: Bridging the Gap between Public & Private Options**

Pepper Harward, RouteMatch

# Installing Taxicards in Subsidized Taxi Programs: What Role Should New Technology Play in the Context of the Ailing Taxi Industry?

Terra Curtis, Neslon\Nygaard Consulting Associates

# DRT as a Part of Integrated Public Transport Network: An Integrated, Combined and Technology Based System

Odette Buntinx, De Lijn (Public Transport Company)

# Wednesday, September 28

7:30 a.m. - 10:00 a.m., *Atrium Lobby* Registration

7:30 a.m. - 8:00 a.m., *Miners A/B* Continental Breakfast

8:00 a.m. - 10:00 a.m., **Concurrent Sessions** 

Session 5A, Ten Mile

It Isn't Easy Getting to the Doctor, But It's Worth It

Moderator: Mary Leary, US DOT FTA

**Overview of FTA Health and Transportation Project Results** 

Mary Leary, US DOT FTA

### Health Tran, an Innovative Healthcare Access Solution

Suzanne Alewine, Missouri Rural Health Association

**Creating a Reliable Transportation Program for Outpatient Dialysis Treatment** 

Julie Wilcke, Ride Connection

**Building Healthcare DRT in Denmark Over the Last 20 Years** 

Niels Tvilling Larsen, Flex Denmark

Roles of the Federal and Local Government in Improving Local Programs for Healthcare-related Trans-portation

Lynn Filla Clark, GAO

Exploring Data at the Intersection of Health and Transportation Case Study: Family Health Center, Worcester, MA

Sarah Anderson; Amherst College

# **Partnering with Insurers**

Perry Meadows, Geisinger Health

Session 5B, Forest

Technology Forum: A Look Inside The Crystal Ball

Moderator: Sarah Boden

### **Panelists:**

- Matthew Mohebbi, IT Curves
- Jeff Zarr, Trapeze
- Alaina Macia, MTM
- Kevin Chambers, Ride Connection
- Valerie Lefler, Liberty Mobility Now Inc.
- Roger Teal, DemansTrans Solutions
- Ryan Larsen, Ecolane
- Joel Bush, TransLoc

10:00 a.m. - 10:30 a.m., *Miners A/B* 

**Break** 

## 10:30 a.m. - Noon, *Ten Mile*

# **Closing Plenary Session**

# What did We Learn? What's Ahead for Us to Discover?

Moderator: David Chia, The Collaborative, Inc.

# **Service Concepts & Markets**

Arnd Bätzner, Mobility CarSharing, Switzerland

# **Organizational Development for Service Delivery**

Otto Cazemier, Mobycon, Netherlands

# **Planning and Performance**

Lind Cherrington, Texas A&M Transportation Institute

# **Health-care Related Transportation**

Mary Leary, US DOT FTA

# **Technology-enabled Innovations**

Niels Tvilling Larsen, Flex Denmark

2:00 p.m.

**Sponsored Shuttle to Denver Workshop Hotel** 

# **Demand-Response Transportation Initiatives at FTA**

Here's what's happening at the Federal Transit Administration to advance innovative approaches to mobility on demand. Visit our website and join us at our presentations this week to learn more about our newest initiatives that provide resources to improve healthcare access and address new models of mobility.

### **Rides to Wellness**

- Fostering partnerships between health & transportation providers to increase access to care, reduce health care costs & improve health outcomes
- See transit.dot.gov/ccam/about/initiatives

# **Mobility on Demand**

- Evaluating models for sustainable, integrated mobility, using traveler-oriented strategies that deliver innovative solutions across all modes: transit, bicycling, and shared-use mobility services
- Improving efficiency by promoting responsive, accessible multimodal service through technologies and partnerships
- Increasing effectiveness by ensuring that transit is fully integrated and a vital element of a regional transportation network that provides consistent, reliable and accessible service
- See transit.dot.gov/about/research-innovation





FTA staff will present about these initiatives throughout the conference. To learn more about these initiatives, review funding opportunities, and access guidance, see transit.dot.gov



"The on-demand economy and new transportation services provide people with more choices, resulting in an environment that empowers travelers to make smart travel decisions that best serve their needs. As we work to develop an equitable mobility on demand system, we can ensure it also pays dividends for disadvantaged groups."

-- Vince Valdes Associate Administrator, FTA Office of Research, Demonstration, & Innovation





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# From soup to nuts.

Since joining the National Express family in May, Ecolane and National Express Transit have been working to bring truly innovative solutions as well as affordable pricing models to transit agencies of all sizes. Both companies recognize the value of an integrated solution, and we look forward to introducing this value to the participants at the 2016 International Conference on Demand Responsive Transportation in Breckenridge, Colorado.





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# TRB International Conference

On Demand Responsive Transportation:
Paratransit from Dial-a-Ride to
Technology Enabled Services













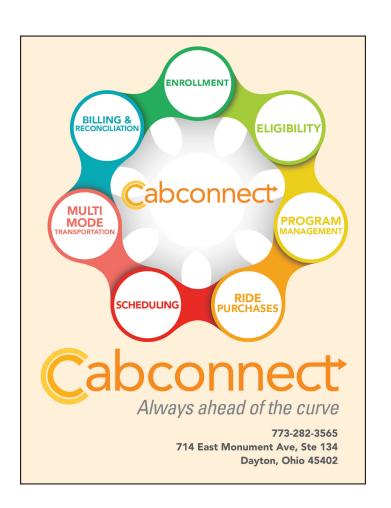
# Innovating mobility solutions. Raising the quality of life for our passengers.

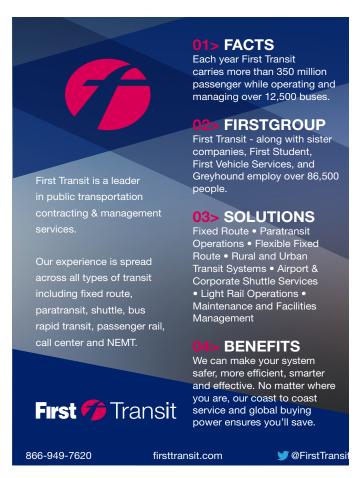
We're leveraging technology to connect paratransit passengers with rides, helping them go when they want to go. With nimble dispatch software, a sophisticated operations center, and caring drivers, our customers gain greater autonomy and the ability to live a normal life, to go to school, work, shop and play.

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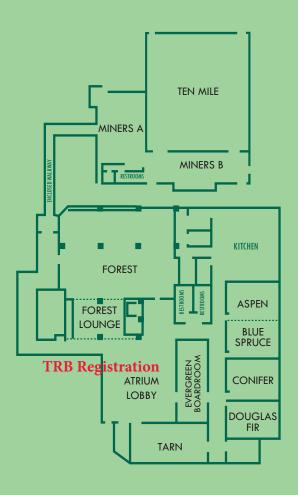
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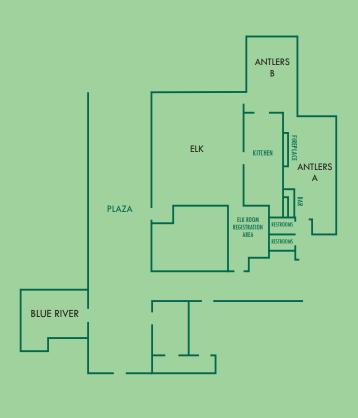
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Notes		

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