

SHARED-USE VEHICLES: EUROPE AND NORTH AMERICA

Susan A. Shaheen, Ph.D.

Honda Distinguished Scholar

**Partners for Advanced Transit and Highways
& New Mobility Center**

University of California, Berkeley & Davis

Shared-Use Station Car SUMMIT

PRESENTATION

- **European Overview**
- **North American Overview**
- **Research Topics**

EARLY EUROPEAN EXPERIENCE

- **Sefage (1948) in Zurich, Switzerland**
- **Procotip (1971) in Montpellier, France**
- **Witkar (1973) in Amsterdam, Netherlands**
- **Villa bil (1983) in Orebro, Sweden**

RECENT DEVELOPMENTS

- **Developments Began in 1980s**
- **Approximately 200 CSOs are Active in 400 Cities**
- **Collectively Claim Over 125,000 Participants**
- **Oldest/Largest: Mobility (1987) and StadtAuto-Shareways (1990)**

MOBILITY CARSHARING SWITZERLAND: UPDATE

- **50,000 Members**
- **2,000 Vehicles**
- **900 Locations**
- **400 Communities**
- **25 to 30% Growth Rate**
- **Increase Utilization by 5%; Grow by 10%— Due to Attrition**

CHANGE IN MODAL SPLIT

Mode of Transport	Without Carsharing	With Carsharing
Private or borrowed car	605	134
Carsharing	—	249
Car rental	29	31
Taxi	.8	1.3
Public transportation	358	573

Source: *Baum and Pesch, 1994 from Harms and Truffer, 1998.*

THREE EUROPEAN PHASES

- **Pioneering Phase**
- **Growth and Volume Phase**
- **Standardization and Networking Phase**

U.S. CARSHARING EXPERIMENTS: 1980s

Mobility Enterprise, Indiana, 1983-1986

- **“Mini” Car Leasing for Local Trips;
Specialty Vehicles for Occasional Use**

Short-Term Auto Rental, 1983 - 1985

- **Deployed from 9,000 Resident Complex**
- **350 Members and 51 Vehicles**

U.S. STATION CAR OVERVIEW

- **Boston, 1994 - 1999: Testing 31 EVs from Suburban Station and 2 Park & Ride Lots**
- **Los Angeles, 1995: Year-Long Program with 3 EVs**
- **New York Suburbs, 1995 - Present: 6 EVs at Commuter Rail Station**
- **BART Station Car Program, 1995 - 1998: 40 EVs at 4 Stations**

STATION CAR OVERVIEW (CONT'D.)

- MacRides, NJ, 1997 - Present: 10 EVs and 20 Commuters & Day Use**
- Sacramento, 1998: 8-Month Project with 3 EVs at Air Force Base**
- BART-Hertz, 2000 - Present: 21 Vehicles and 12 Peak-Period Users**
- Anaheim, 2000 - Present: 7 RAV-4s and 26 Users at 2 Metrolink Stations**
- Anaheim, 2001 - Present: 8 NEVs and 2 Neighborhoods**

U.S. CARSHARING OVERVIEW

- **Dancing Rabbit Vehicle Cooperative, 1998: 3 Bio-Diesel vehicles, 15 Members**
- **CarSharing Portland, 1998: 28 Vehicles, 550 Members**
- **Flexcar, Seattle, 2000: 40 Vehicles, 1,500 Members**
- **Boulder CarShare Cooperative, 2001: 2 Cars, 12 Members**



U.S. CARSHARING OVERVIEW

- **Traverse, Michigan, 2000: 3 Vehicles, 25 Members**
- **ZipCar, Boston, 2000: 48 Vehicles, 960 Members**
- **San Francisco City CarShare, 2001: 24 Vehicles, 550 Members**
- **Carsharing Aspen, 2001: 1 Vehicle, 10 Members**
- **GoCar, Denver, 2001: 1 Vehicle with 2 More Planned**



RESEARCH PILOTS

IntelliShare, 1999 - Present:

- **UC Riverside and Honda; 25 EV Plus Honda Vehicles; Smart Technologies**



UC Irvine/E-Com, 2001 - Present:

- **UCI and Toyota; 15 E-Coms; 6 Employers; Smart Technologies**

CarLink II, 2001 - Present:



- **UC Davis, PATH, Honda, Caltrans, and Caltrain; 27 ULEVs; Multiple Employers; Smart Technologies**

U.S. SHARED-VEHICLE PROGRAM SUMMARY

- **9 Carsharing Programs; 5 Station Car Programs**
- **3 Research Pilots**
- **9 Planned Programs (2001 - 2002)**
- **Over 4,000 Users and 254 Vehicles**
- **Pioneering--->Growth & Volume Phase**
- **Commercial, Non-Profit, Public-Private Partnership, and Research Approaches**

CANADIAN SHARED-VEHICLE PROGRAM SUMMARY

- **Began Operations in 1994**
- **9 Carsharing Programs**
- **Over 3,500 Users**
- **267 Vehicles**
- **Commercial and Nonprofit Models**

RESEARCH QUESTIONS

CAN CARSHARING....?

- **Facilitate Transit Access and Encourage Use**
- **Reduce Parking Needs at Transit and Work**
- **Help Attract and Retain Employees**
- **Support Air Quality and Other Environmental Goals**
- **Encourage More Careful Tripmaking—Duration and Travel Distance**
- **Be Economically Sustainable**

RESEARCH AREAS

- **Travel Analysis**
- **Market Niche Testing**
- **Economic Analysis**
- **Environmental and Social Impacts**
- **Technologies and Services Needed from Operational & Customer Perspective**
- **Technology Standardization**
- **Institutional Issues (e.g., Organizational Structures and Policy Incentives)**

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