

INNOVATIVE MOBILITY CARSHARING OUTLOOK

CARSHARING MARKET OVERVIEW, ANALYSIS, AND TRENDS ▪ Fall 2012

TRANSPORTATION SUSTAINABILITY RESEARCH CENTER - UNIVERSITY OF CALIFORNIA, BERKELEY

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Worldwide Carsharing Growth Continues

As of October 2012, carsharing was operating in 27 countries and five continents, with an estimated 1,788,000 members sharing over 43,550 vehicles. Carsharing was planned in seven additional countries worldwide.

North America remains the largest carsharing region in terms of membership, with 50.8% of worldwide members and 36% of all fleets deployed. Europe, which has lower member-vehicle ratios, accounts for 38.7% of members and 47.0% of fleets deployed.

In 2012, Israel maintained the highest member-vehicle ratios (72:1) followed by 64:1 in both the United States and Spain. (Note: One-way carsharing is included in the worldwide estimates below.)

By The Numbers

	<i>Members</i>	<i>Vehicles</i>	<i>Ratio</i>
Asia	160,500	6,155	26.1
Australia	25,500	1,080	23.6
Europe	691,943	20,464	33.8
N. America	908,584	15,795	57.5
S. America	1,500	60	25.0
Worldwide	1,788,027	43,554	41.1

ONE-WAY CARSHARING

One-way (or point-to-point) carsharing, which allows members to pick-up a vehicle at one location and drop it off at another, has witnessed a notable expansion in the past year. A few recent developments include the expansion of Canadian-based Communauto into one-way operations in Paris in September 2012, and Germany's BMW DriveNow, which launched a service in San Francisco in June 2012. Additionally, car2go, a subsidiary of Daimler AG, has continued to expand operations in Western Europe and North America throughout 2012.

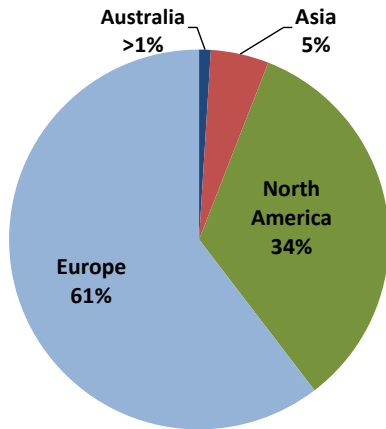
As of October 2012, one-way carsharing was operating in seven countries worldwide including (Austria, Canada, France, Germany, the Netherlands, the United Kingdom and the United States). In North America, car2go and DriveNow were collectively providing one-way carsharing in six American and three Canadian metropolitan areas.

WORLDWIDE CARSHARING THEN AND NOW: SIX YEARS OF GROWTH (2006-2012)*

2006

346,610 Worldwide Members
11,696 Worldwide Vehicles

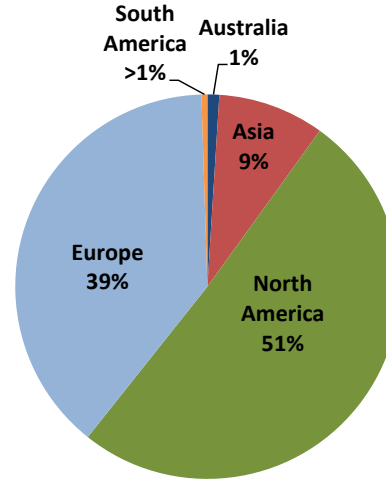
Percent of Worldwide Membership



2012

1,788,027 Worldwide Members
43,554 Worldwide Vehicles

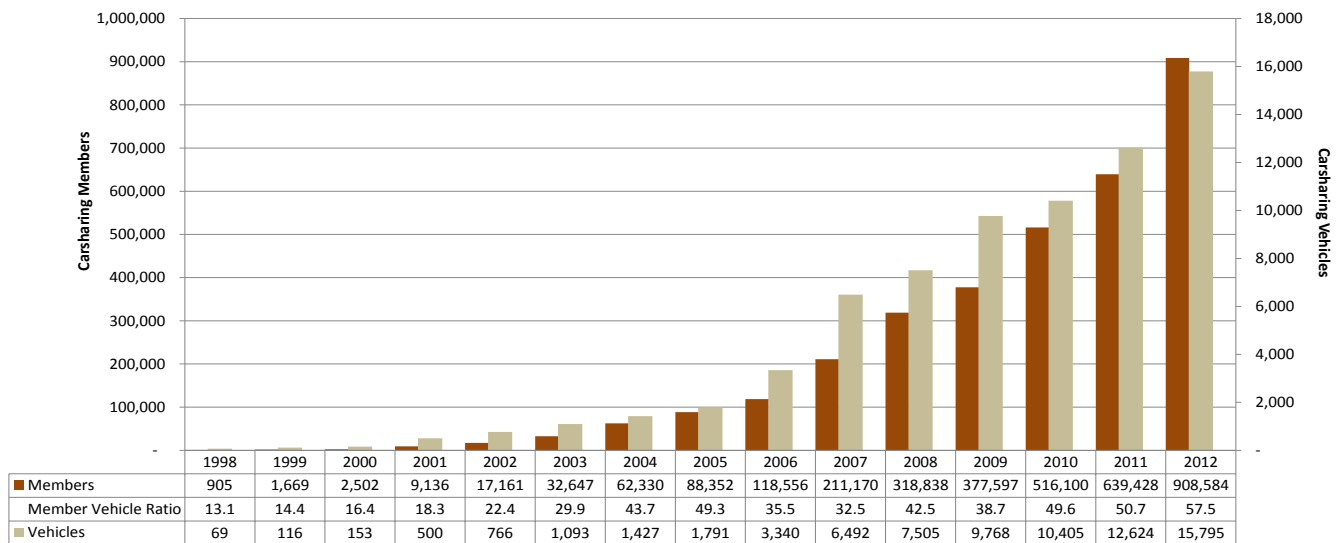
Percent of Worldwide Membership



REGION	AVERAGE ANNUALIZED GROWTH RATE	AVERAGE ANNUALIZED GROWTH RATE	AVERAGE ANNUALIZED GROWTH RATE
	2006-2008	2008-2010	2010-2012
ASIA	-11%	155%	40%
AUSTRALIA	115%	56%	41%
EUROPE	26%	29%	12%
NORTH AMERICA	64%	27%	33%
SOUTH AMERICA	LAUNCHED OPERATIONS IN 2009		269%
WORLDWIDE	39%	37%	20%

* Data reported as of October every other year.

NORTH AMERICAN CARSHARING GROWTH (1998-2012)**



**Data reported as of July each year.



PERSONAL VEHICLE SHARING

Shared-use vehicle services are entering a new phase of development characterized by short-term access to privately-owned vehicles, referred to as personal vehicle sharing. Broadly speaking, personal vehicle sharing companies broker transactions among car owners and renters by providing the organizational resources needed to make the exchange possible (i.e., online platform, customer support, auto insurance, and technology). As of October 2012, there were 33 personal vehicle sharing operators worldwide, with 10 active or in pilot phase, three planned, and four defunct in North America. Researchers identified four distinct models of personal vehicle sharing.

Fractional Ownership: Individuals sub-lease or subscribe to a vehicle owned by a third party. These individuals have “rights” to the shared-use vehicle service in exchange for taking on a portion of the expense. This could be facilitated through a dealership and a partnership with a carsharing operator, where the car is purchased and managed by the carsharing operator. This enables access to vehicles that individuals might otherwise be unable to afford (e.g., higher-end models) and results in income sharing when the vehicle is rented to non-owners.

Hybrid Peer-to-Peer (P2P)-Traditional Carsharing Model: Individuals access vehicles by joining an organization that maintains its own fleet of vehicles, but also includes private autos, throughout a network of locations. Insurance is provided by the carsharing organization during the access period for both carsharing and P2P vehicles. Members access vehicles through a direct key transfer from the vehicle owner or through operator installed in-vehicle technology enabling “unattended access.”

P2P Carsharing: Employs privately-owned vehicles made temporarily available for shared use by an individual or members of a P2P company. Insurance is generally provided by the P2P carsharing organization during the access period. In exchange for providing the service, operators keep a portion of the usage fee. Members can access vehicles through a direct key transfer from the vehicle owner or through operator installed in-vehicle technology that enables “unattended access.”

P2P Marketplace: P2P marketplace enables direct exchanges between individuals via the Internet. Terms are generally decided among parties of a transaction and disputes are subject to private resolution.

NORTH AMERICAN CARSHARING MARKET TRENDS

Since 1994, 74 carsharing programs have been deployed in North America—48 are operational and 26 defunct. As of July 1, 2012, there were 19 active programs in Canada and 26 in the United States (U.S.), with approximately 908,584 carsharing members sharing nearly 15,800 vehicles in North America. Another six programs plan to launch in North America by January 2013. The three largest providers in the U.S. and Canada support 87.5% and 73.8% of total membership, respectively.

As of July 1, 2012, 19 Canadian operators claimed 101,502 members and shared 3,143 vehicles. In the U.S., 806,332 members shared 12,634 vehicles among 26 operators. In Mexico, 750 members shared 18 vehicles among one operator. (Note: multi-national programs with operations in both the U.S. and Canada are counted as an individual operator in each country.) Between July 2011 and July 2012, carsharing membership grew 43.8% in the U.S. and 28.7% in Canada. Additionally, between July 2011 and July 2012, carsharing fleets grew 26.1% in the United States and 20.7% in Canada.

Member-vehicle ratios are an important metric, which can be used to assess how many customers are being served per vehicle and the relative usage level of carsharing members. As of July 2012, U.S. member-vehicle ratios were 64:1, representing a 13.9% increase over the previous year. In Canada, the ratio was 32:1 representing a 6.6% increase over the previous year. In Canada, member-vehicle ratios have risen for the preceding five consecutive years. During this period, North American member-vehicle ratios increased to 58:1, representing a 13.7% change from July 2011.

In July 2012, U.S. for-profit programs (13 of 26) represented 50% of the operators and accounted for 95.3% of the members and 93.2% of vehicles. In Canada, for-profit programs (7 of 19) represented 36.8% of the operators and accounted for 89.4% of the membership and 88.5% of the fleets deployed.

GROWTH OF AUTOMAKERS AND RENTAL CARS

In October 2012, ten automakers provided carsharing services or factory-equipped telematic vehicles for carsharing worldwide. In North America, two automaker programs represented 6.2% and 10.7% of the carsharing membership and fleets deployed, respectively, in July 2012. In June 2012, BMW’s DriveNow carsharing program launched operations, joining Daimler AG’s car2go program. As of October 2012, these programs operated in six American markets in the U.S. and three metropolitan markets in Canada.

Worldwide, five rental car companies provide carsharing services. In North America, rental car programs represented 17.4% and 13.5% of the carsharing membership and fleets deployed, respectively, in July 2012. This represents an increase from 6.5% of membership and 6.0% of fleets from July 2011.



ABOUT TSRC

The Transportation Sustainability Research Center (TSRC) was formed in 2006. TSRC is managed by the Institute of Transportation Studies of the University of California, Berkeley; it is headquartered at the University's Richmond Field Station.

TSRC uses a wide range of analysis and evaluation tools, including questionnaires, interviews, focus groups, automated data collection systems, and simulation models to collect data and perform analysis and interpretation of the data. The center develops impartial findings and recommendations for key issues of interest to industry and policy makers to aid in decision making. TSRC has assisted in developing and implementing major California and federal regulations and initiatives regarding sustainable transportation, including zero emission vehicle credits for carsharing vehicles as part of the Zero Emission Vehicle (ZEV) Mandate in California. Others include the California Global Warming Solutions Act (AB 32), the Low Emission Vehicle Program, the Pavley Law, Low Carbon Fuel Standards policies, California SB 375 (anti-sprawl legislation), and the federal Energy Independence and Security Act of 2007.

INNOVATIVE MOBILITY CARSHARING OUTLOOK

Fall 2012

Upcoming Events

92nd Annual Transportation Research Board Meeting

January 13-17, 2013: The TRB Annual Meeting program covers all transportation modes, with more than 4,000 presentations in nearly 650 sessions and workshops addressing topics of interest to all attendees—policy makers, administrators, practitioners, researchers, and representatives of government, industry, and academic institutions. A number of sessions and workshops will address the spotlight theme for 2013: **Deploying Transportation Research - Doing Things Smarter, Better, Faster**. There will be carsharing presentations, posters, and committee meetings at this event. For more information, see www.trb.org.

Recent Publications

Shaheen, Susan A, and Adam P Cohen. "Carsharing and Personal Vehicle Services: Worldwide Market Developments and Emerging Trends." *International Journal of Sustainable Transportation* 7, No. 1, p. 5-34 (2013). Pre-print available on-line at: <http://www.tandfonline.com/doi/abs/10.1080/15568318.2012.660103#preview>.

Shaheen, Susan A, Elliot W Martin, Adam P Cohen, and Rachel S Finson. *Public Bikes in North America: Early Operator and User Understanding*. Research Report 11-26. San Jose: Mineta Transportation Institute, 2012.

Shaheen, Susan A, Mark A Mallery, and Karla J Kingsley. "Personal Vehicle Sharing Services in North America." *Research in Transportation Business & Management*, 2012: Pages 71-81.

TSRC Methodology

Data include one-way carsharing unless otherwise stated; 'classic or traditional carsharing' data exclude personal vehicle sharing numbers except for hybrid P2P carsharing. Classic carsharing members and vehicles from hybrid P2P operational models are included in classic carsharing data.

North American member/vehicle numbers are collected biannually, January and July of every year. Data are collected from each carsharing operator.

Worldwide member-vehicle numbers are collected through expert estimates and industry benchmarking through national and regional carsharing associations. In select circumstances, the authors augment data provided by national associations with data from large, non-member operators to obtain a more accurate estimate. In North America and in smaller markets with a limited number of operators, the authors collect member/vehicle data from each organization. Note, there may be inconsistencies with a few data points compared to prior publications due to updated numbers provided by experts after a publication was published.

Please note TSRC never releases disaggregated data without the express permission of the respective operator(s). The authors would like to thank all of the North American and worldwide operators, experts, and associations who provide member-vehicle numbers and other data.

Data from this outlook should be attributed to TSRC, UC Berkeley. For more detailed market analyses (e.g., longitudinal U.S. and Canadian growth numbers), please see www.imr.berkeley.edu.

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