



Communauto: A Big Idea for a Big Market

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Benoit Robert was sitting in his office at Communauto headquarters looking through a paper close to his heart. After all, it was “Restructuring the Form of Car Ownership” that inspired him to establish the first North American car sharing organization.¹ It was an instant reminder of why he started Communauto in the first place. For Benoit, the CEO of Communauto, outperforming the competition and running a profitable organization were not enough. Since its founding in 1994, Communauto had evolved from a simple idea into the second largest car sharing organization in North America. It was early in the year 2012, and Benoit was looking over Communauto’s numbers for 2011, which revealed that Communauto had a fleet of over 1,100 vehicles and 27,000 members in four cities across Quebec.^{2, 3} Although Benoit was satisfied with Communauto’s financial situation he felt that his overarching goal, to use car sharing to lessen the environmental impact of private car ownership, had yet to be fulfilled. *Benoit had carefully developed and refined Communauto’s business model to provide a convenient, cost effective alternative to car ownership that simultaneously reduced the environmental impact of private travel.* For Benoit, both parts were necessary for success. Supporting the reduction of users’ transportation-related environmental impact involved persuading car sharing consumers not only to opt out of car ownership but also potentially away from car sharing itself at times; nudging them towards other modes of transportation such as walking, bicycling, and public transportation.

In fact, recently a new concern had begun nagging at Benoit. While he believed in car sharing as an important platform for reducing the environmental impacts of travel, he was worried that the rise in popularity of car sharing threatened the very rationale for which it was designed. Benoit was increasingly concerned with how car sharing was being defined and implemented by Communauto’s competitors. Firms such as Zipcar, a rapidly growing U.S.-based car sharing firm, developed more straightforward fee structures based solely on vehicle time, which Benoit felt hid the environmental costs of travel. Consequently, he perceived other car sharing organizations as fundamentally jeopardizing the potential opportunity for meaningful environmental impact through widespread car sharing. Thus, Benoit wondered how to profitably position

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Communauto in ways that would continue attracting more members while simultaneously leading its members towards less environmentally harmful travel choices?

CAR SHARING—A NEW PARADIGM FOR TRANSPORTATION

Car sharing involved the short term rental of automobiles for individual use, often for local travel for a few hours at a time. In other words, car sharing provided individuals private vehicle access on an as-needed basis without the burden of car ownership. Instead, these burdens were handled by the car sharing organization itself with consumers paying for membership and usage. Unlike traditional car rental, where customers could rent cars for days or weeks at a time through storefront locations, car sharing provided users greater flexibility. Car sharing customers could effectively use cars for much shorter periods of time. Moreover, rather than having to go through a lengthy rental process at a service counter, car sharing users could utilize an online reservation system to reserve access to one of many vehicles located throughout a city's core, with little to no advance notice, and no paperwork. After use, they could return the car to other designated locations within the city.

Car sharing typically appealed to users who shared a variety of similar characteristics. Most users lived in geographically dense locations, drove relatively infrequently, and regularly used public transportation. They tended to be in their 30s and 40s, often with few or no children; often more highly educated, environmentally conscious, and wealthier than the broader population.⁴ One main reason individuals chose car sharing was cost savings (see **Exhibit 1**). Other factors included the convenience of not having to maintain a vehicle and the desire to reduce their transportation-related environmental impacts by prioritizing other transportation options such as walking, biking, and public transit use. The cumulative effect of these choices led to a 44 percent average reduction in kilometers traveled by car per year for car sharing users, as compared to car owners.⁵

BENOIT ROBERT AND THE BIRTH OF COMMUNAUTO

The initial thoughts that led to the establishment of Communauto came to Benoit in 1990, when he began envisaging a car-usage model that would fit his own personal transportation needs. Like many entrepreneurs who become enamored with a revolutionary idea, at first Benoit invested considerable time in research. In scouring resources he unearthed in libraries, Benoit discovered that the idea of car sharing dated back to the 1940s, but he also learned that many previous attempts to create viable car sharing organizations, all of them in Europe, had failed. Over the next few years, as he pursued graduate studies in Urban Planning at Laval University in Quebec and worked for a short stint at the Quebec Ministry of Transportation, he continued pondering how to develop a viable car sharing service. Eventually, Benoit discovered that several small car sharing organizations were active and even thriving in Europe. In 1993, he visited the continent for six weeks to see these enterprises in person.

Although Benoit originally intended to write up his findings for his academic degree, he eventually decided to put together a business plan and market study for car sharing in Quebec. Subsequently, using these documents as a starting point, in 1994 he established a co-op named Autocar in Quebec-City with a fleet of three used cars shared by fifteen members. In 1995 he started a similar service in Montreal, named

Communauto, but there chose a for-profit corporate model, having discovered that the co-op model did not fit his managerial style. Eventually, in 1997, Autocar was dismantled and its assets sold to Communauto. Although Communauto abandoned the organizing principles that characterized co-ops, the company did not abandon its social mission: to reduce the environmental impact of vehicle usage. Benoit also ensured that Communauto remained attuned to the ideals of Quebec's "social economy," which aspired to develop new and innovative ways to create wealth, produce goods, and deliver services, while integrating social and environmental goals into the very act of production.⁶

By 2012, the significant environmental impacts of the transportation sector had become increasingly apparent, not only to Benoit and members of Communauto, but to the public at large. Just two years prior, for the first time in history, the number of cars on the road worldwide exceeded one billion, with some industry observers predicting growth to 2.5 billion by 2050.⁷ As a sector, transportation accounted for about one-quarter of worldwide carbon dioxide (CO₂) emissions, thus contributing greatly to climate change.⁸ Each kilometer driven in a typical compact car released about 0.156 kg of CO₂ into the atmosphere.⁹ In fact, CO₂ was released before a car even tallied its first kilometer on the road, with estimates ranging from six tons of CO₂ emitted for the production of a compact car to seventeen tons for a mid-sized vehicle.¹⁰ One half of the world's oil was used for fuelling cars, and increasingly this oil was being extracted from more sensitive regions, such as the oil-sands of Alberta and the deep-sea wells of the Gulf of Mexico. Cars also emitted localized pollutants such as nitrous oxide and carbon monoxide, and particulate matter which were implicated in diseases such as asthma and lung cancer.

BARRIERS TO GROWTH

By 2012, although car sharing had been available for nearly two decades in North America, most people were still unfamiliar with the concept. Only about 0.1 percent of the Canadian and American population used a car sharing service—around 350,000 users combined.¹¹ Zipcar, established in 2000 with operations across the United States and Canada, was by far the largest car sharing organization in North America, with Communauto a distant second. Though ostensibly competitors, they did not directly compete in the same markets. Communauto's profits had grown over the past five years; while Zipcar had yet to break even. In 2011, Zipcar reported a loss of \$7.152 million.¹²

In order to understand why awareness and uptake in North America remained low, Benoit looked to the knowledge and experience accumulated in Europe. In the last twenty years, adoption rates of car sharing in the European Union (EU) increased significantly faster than in North America. Projections for 2020 estimated that membership in car sharing organizations in the EU would number in the millions.¹³ Research in the Netherlands, however, demonstrated that despite popularity among certain demographics, most people were ingrained with their current transportation habits.¹⁴ These habits were the cumulative result of decades of private car ownership. Although car sharing made it possible to substantially reduce individual transportation costs and distances driven, the possibility of shifting away from private car ownership was rarely a serious consideration for most car owners. Long-standing habits and usage

patterns prevented people from fully appreciating the actual costs and benefits of car sharing versus car ownership.

According to Benoit, these misperceptions caused potential users to overestimate the costs and underestimate the benefits of car sharing and to do the reverse for car ownership. The real costs of owning a car extended beyond fuel and parking, commonly perceived by many people as the primary costs of car usage. When evaluating the cost of driving, many people overemphasized the variable costs of private car ownership and neglected the fixed costs. In actuality, fixed costs (i.e., maintenance, storage, and insurance) accounted for approximately 70 percent of the total costs of car ownership. In addition to these fixed costs, a full cost accounting of car ownership also needed to factor in depreciation. Given the complexity, it was perhaps no surprise that real costs of car ownership were so widely misunderstood.¹⁵

Using a holistic approach to assess the costs of car ownership in Canada yielded a total of roughly \$710/month for a budget to midsized car.¹⁶ Moreover, car sharing members took fewer spontaneous car trips and on average reduced personal vehicle driving by some 44 percent.¹⁷ As a result, car sharing users often increased their use of other transportation platforms. These could include subway and bus access (\$77/month or \$3/trip),¹⁸ increased use of taxis (\$50/month or more for occasional use), and bicycle travel costs (purchase and maintenance or \$100/year for bike sharing where available).¹⁹

Another concern among potential users was the belief that gaining access to cars in a car sharing fleet would be administratively difficult and geographically inconvenient. The rule of thumb in the industry, to which Benoit and Communauto also adhered, was that potential users were unwilling to walk more than 6–10 blocks to access a vehicle. Further, potential users were generally concerned about the reliability and trustworthiness of car sharing cars; they were worried vehicles would not be where they were needed and/or would be poorly maintained. Last, private car ownership connoted freedom and independence; a consistent theme in North American culture, amplified through popular music, film, and television.²⁰ Benoit, though, perceived a broader societal shift towards services and sharing oriented business models, and felt that car sharing might become a viable alternative for many car owners if presented attractively.

LIVING AND DRIVING IN QUEBEC

Canada was the largest country by area in the Americas and second only to Russia globally. Yet, with about 34.5 million inhabitants, Canada's population was just over one-tenth of that in the U.S.²¹ At 1.5 million km² and with about 8 million inhabitants, Quebec was Canada's largest province by area and second largest by population.²² Put into perspective, however, this French speaking province was about three times the geographic size of France, with only 11 percent of its population. Despite its vast size, roughly 90 percent of Canada's population lived within 160 kilometers (100 miles) of the U.S. border, and 51 percent lived within the corridor between Quebec City, Quebec and Windsor, Ontario²³ (see **Exhibit 2**). The four cities that Communauto served—Quebec City, Montreal, Gatineau, and Sherbrooke—were within the Quebec portion of the corridor and had a combined population of about 4.8 million.²⁴

The most recent available government data revealed that in 2009, Canadians owned an average of 1.47 vehicles per household, a slight increase from 1.43 vehicles

per household in 2000. Quebec had the second highest total number of vehicles in the country, yet the lowest ratio of vehicles per household: 1.35. From 2000 to 2009, average vehicle usage fell in Canada from 17,000 km/year to 15,400 km/year. Quebec's average vehicle usage also declined from 16,600 km/year in 2000 to 14,800 km/year in 2009 and was the second lowest province in the country, behind British Columbia.²⁵

THE COMMUNAUTO SYSTEM

Benoit realized early on that the key to car sharing success hinged on ease of use and high reliability. Consequently, Communauto established dense networks of stations throughout the cities in which it operated, with the goal that users would have to walk less than one kilometer to reach their vehicle. Montreal, for example, had over 300 stations, most located in the city's "core"²⁶ (see **Exhibit 3**). Communauto invested significant effort into attaining parking spaces from the city, from private companies, and even from other organizations such as places of worship and supermarkets. Benoit noted that finding suitable parking spots was surprisingly difficult, and often necessitated months or years of work. Yet without a sufficient number of spots in a neighborhood or borough, car sharing was not viable.

After an initial sign up, a Communauto member simply reserved a car when needed. Reservations were usually handled online, and particularly through mobile phones. Communauto had invested nearly \$1 million to develop its mobile online reservation service. Communauto also allowed members to reserve a car through a telephone call to a live representative, but charged extra for this service as a way to nudge users towards the online reservation system, thereby reducing costs and errors in the reservation process. Through the online system users could cancel reservations any time before 9 a.m. or up to two hours before scheduled pickup. Annually, over 500,000 online reservations were made, accounting for 2.8 million vehicle hours and 20 million kilometers driven.²⁷

Communauto offered four different pricing options, all of which included insurance, maintenance, and gas. The intent was to provide packages attractive to multiple demographics, based on different price points for annual membership and usage costs. Recently, as part of its efforts to expand to a younger, more cost sensitive demographic, Communauto added the "Le Lièvre" package, which had a lower upfront cost. All packages calculated usage costs through both rate per kilometer and rate per hour charges.²⁸ These fees were not immediately easy to understand for members, but did provide transparency into how the costs of sharing varied with types of usage. For example, average driving speed in urban environments was 48 km/hr,²⁹ yet users often used car sharing cars for errands, shopping, and socializing, which meant that the car was often parked for at least half of the rental period. Perhaps surprisingly, Benoit asked users not to use Communauto for long periods or distant travel, and explicitly suggested they use standard car rental services for these types of trips. Supporting all car-usage options, from short-term to long-term, would, in Benoit's assessment, necessitate doubling the size of the fleet, in turn necessitating a hefty increase in membership fees, thereby hurting rather than benefiting his customers.

For Communauto members, fears regarding accessibility and reliability had not materialized. Communauto member satisfaction had been increasing since 2004 and currently 88 percent of members were satisfied with vehicle availability. Communauto's overall satisfaction rate was above 95 percent. Communauto was also highly

efficient in managing its fleet as 90 percent of its vehicles were in working order at all times.³⁰ Benoit believed this latter point was critical to success, as many car sharing fleets were plagued with reliability issues.

Car sharing clearly impacted Communauto's members. Communauto data revealed that 41 percent of members sold their car after joining the service and 80 percent said they would not buy a car in the future. Further, 70 percent stated that ability to access the service was a determining factor in choosing where to live; and 97 percent claimed it would influence where they might work or study. 98 percent of users referred others to Communauto. To additionally support its members, Communauto launched Communopolis in 2011. Communopolis was an online community for Communauto members to share ideas on car sharing, car-free living, collaborative consumption, and related topics around developing more sustainable cities and lifestyles.³¹

INCREASED AWARENESS AND GROWTH

The high capital expenditures necessary for purchasing and maintaining its car fleet and infrastructure weighed heavily in the company's operational cost structure, thereby limiting Communauto's marketing resources. As well, Communauto was self-funded and, unlike some other car sharing ventures, received no monetary government support in the form of grants, loans, or other types of partnerships. While these choices were intentional so as to keep autonomy in running the firm, they also limited its financial options. Accordingly, Communauto allocated only around 3 percent of revenue to marketing, which in 2011 was about \$441,000.³² In the same period, Zipcar spent \$7.4 million (USD) on marketing, a similar proportion of its \$241 million revenue.³³ Unsurprisingly, in most of North America, Zipcar enjoyed higher brand awareness than Communauto, and its name was virtually synonymous with the concept of car sharing.

According to Marco Viviani, Communauto's Director of Marketing, 60 percent of new customers were attracted to Communauto through word-of-mouth exposure.³⁴ Communauto also relied on media coverage to increase awareness. Benoit and Marco saw such exposure as invaluable because it increased awareness not only of Communauto but about the idea of car sharing more broadly. Press coverage had proven highly cost effective and Communauto actively sought out ways to stay in the news, even undertaking potentially risky new projects to do so. For example, with its purchase of fifty Nissan Leafs in 2010, Communauto garnered a lot of media attention as the first car sharing service to integrate electric vehicles (EV's) into its fleet.³⁵ Doing so, however, was more expensive: Leafs cost \$43,000 each, compared to roughly \$21,500 each for its existing fleet of Toyota Echo, Matrix, and Yaris models. Moreover, the Leafs added potential operational risk, because it was unclear how reliably they would operate in Quebec's harsh winters. Yet, because Communauto was self-funded and privately owned, Benoit had the freedom to undertake these actions, something he might not have been able to do if he had to answer to outside investors.

Since its founding, Communauto had grown steadily in revenues, cars, and members (see **Exhibit 4**). As the only car sharing service in Quebec, Communauto had surpassed 27,000 members by 2012.³⁶ With its branded cars frequently seen on city roads, Communauto had high brand awareness within Montreal, Quebec's largest city. Communauto research revealed that approximately 70 percent of Montrealers were familiar with either the Communauto name or logo. Even so, Benoit felt Communauto

had not yet lived up to its potential. His belief was that as much as 5 percent of Quebec's urban population could benefit from Communauto, much more than its current member base.

Even though Communauto was a distant second in size to Zipcar in North America, Benoit worried less about Communauto's future success than about the possibility that Zipcar's model for car sharing could become the de facto standard in North America. Zipcar's two membership plans were simple, and both only charged by the hour³⁷ (see **Exhibit 5**). In contrast, Benoit insisted that Communauto fees be based on a combination of time spent and distance traveled. Benoit's rationale for Communauto's approach was that explicitly charging for distance traveled would make more transparent the cost and underlying environmental impact of driving. Moreover, he believed that Communauto's pricing structure would ultimately have a greater impact on users' transportation choices.

In fact, car sharing did appear to be reducing the number of cars on the road. Each car in a car sharing fleet, according to Communauto, removed 4.6 to twenty personal cars from the road, as car sharing users sold their existing cars and avoided purchasing additional cars. Given that the average lifespan of a passenger vehicle was eleven years,³⁸ car sharing could create meaningful reductions in the total number of cars manufactured and sold. It was these environmental and health impacts that continued to motivate Benoit's quest to make car sharing even more popular.³⁹

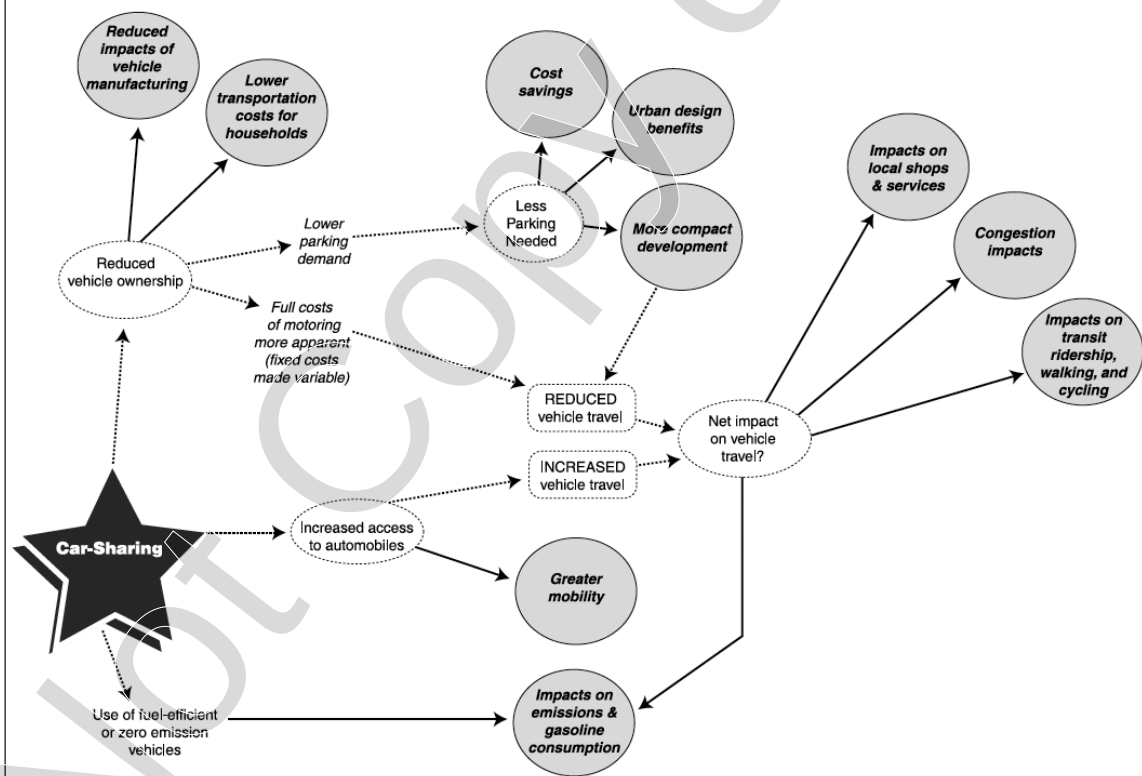
THE CHALLENGE: CREATING GREATER IMPACT

Communauto was unchallenged in the Quebec car sharing market and Benoit felt it was doing well from a financial perspective. It had grown rapidly since its founding, developing an indisputable cachet and extreme loyalty among its members. Yet, Benoit was increasingly concerned that the rapid growth of car sharing firms with simpler time-based rental models would water down the potential positive environmental impact of car sharing. He wanted Communauto and car sharing more broadly to be a catalyst for moving people away from driving vehicles and towards other forms of transportation whenever possible. Therefore, Communauto actively positioned itself as a key component in a city's transportation ecosystem; complementing rather than substituting other modes of urban transportation, such as walking, bicycle riding, and utilizing taxis and public transit (see **Exhibit 6**). Indeed, Communauto sought out partnerships with other transportation organizations such as Société de Transport de Montréal (STM) which managed Montreal's bus and subway services, Montreal's bicycle sharing program BIXI, Canada's train service VIA Rail, and even car sharing services in neighboring provinces.⁴⁰ It also distributed leaflets and advertised in public transport venues such as bus stops, subway stations, and on city buses (see **Exhibit 7**).

Communauto also began to pilot peer-to-peer car sharing. This service, called P2P, allowed car owners to rent their own cars to Communauto which, in turn, offered them to Communauto members. Benoit had wanted to develop this service since he had founded Communauto, yet the mobile communication technology required to coordinate such a complex service had only recently become available. P2P introduced an attractive cost structure to both sides of the arrangement by fairly compensating car owners and remaining cost effective for members. Benoit hoped P2P would be a car sharing game changer by essentially eliminating or dramatically reducing Communauto's proprietary fleet, thereby further reducing the number of vehicles on the road.

Obviously, many significant challenges lay ahead, including continuing to grow Communauto in ways that would encourage ever larger numbers of people to transition away from car ownership. In particular, Benoit pondered whether he should follow in the footsteps of Zipcar and simplify Communauto's pricing structure, to make his service more attractive, or whether to continue providing more complex plans more closely aligned to the environmental costs of driving. Another trade-off that preoccupied Benoit was where to invest the most efforts on reducing environmental impact. Should Communauto focus more on attracting new members, thereby reducing the number of cars on the road, or was it better to invest resources into reducing the environmental impacts of its fleet through purchasing more fuel efficient and electric cars? At the most fundamental level, Benoit asked himself what activities his company should now pursue to create ever greater positive impact.

Exhibit 1: Potential Benefits of Car Sharing



Source: Millard-Ball, A., Murray, G., Ter Schure, J., and Fox, C. (2005). "Car-Sharing: Where and How It Succeeds." Reprinted with permission.

Exhibit 2: The Quebec-City – Windsor Corridor



Source: Wikimedia Commons. http://en.wikipedia.org/wiki/File:Quebec-Windsor_Corridor.svg, accessed May 21, 2013.

Exhibit 3: Communauto Stations in Montreal



Source: Communauto.

Exhibit 4: Total Number of Communauto Users (green bars) and Vehicles (blue line) 1995–2012

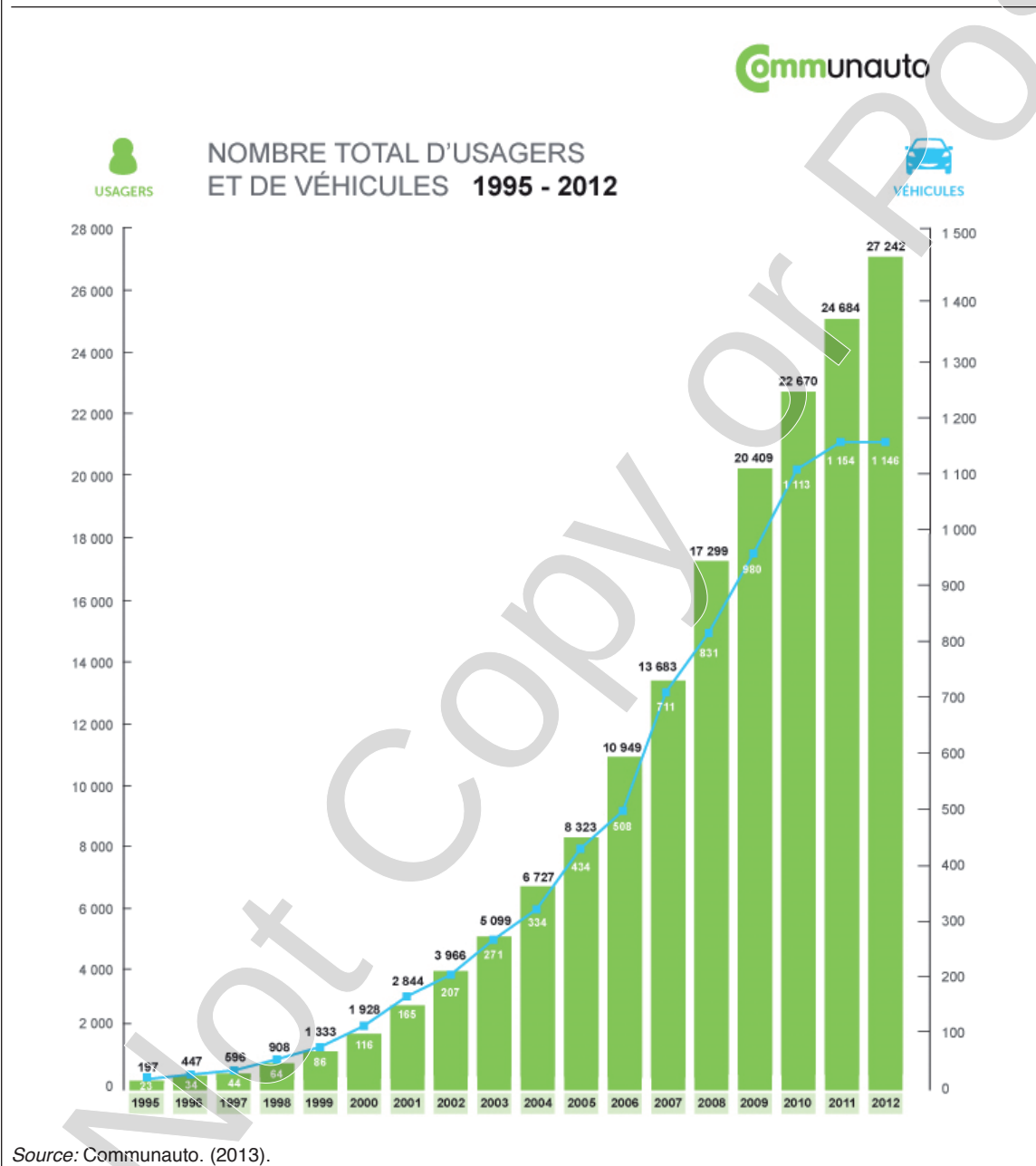


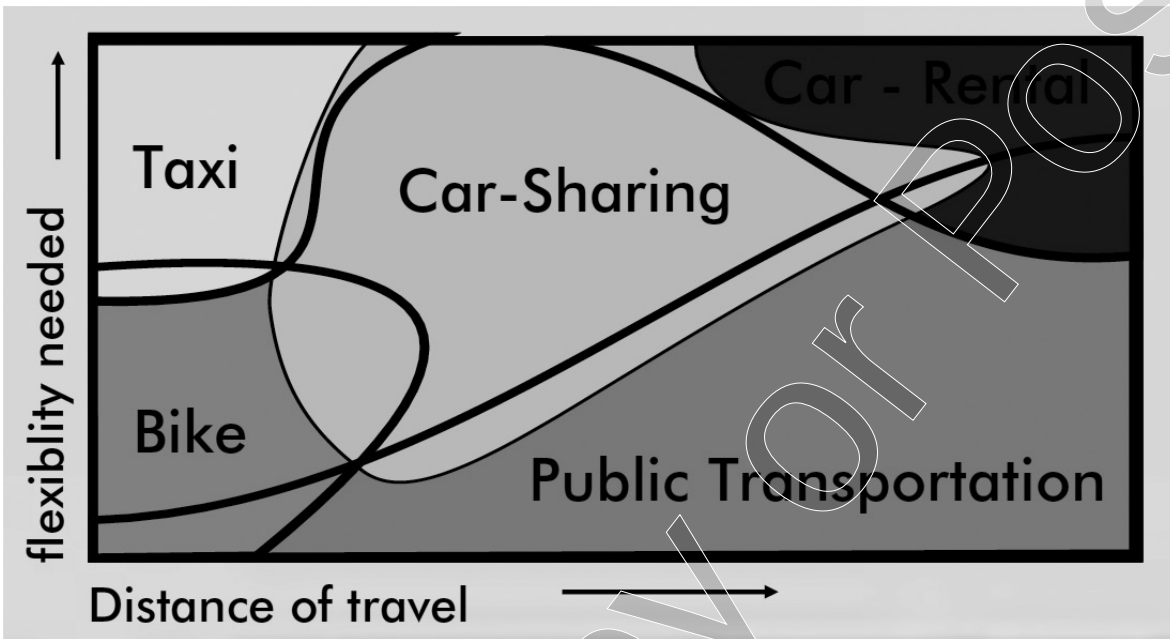
Exhibit 5: Communauto/Zipcar Pricing Comparison

Communauto Pricing Structure				
	Package A	Package B	Package C	Package <i>Le Lièvre</i>
Annual Dues	\$360	\$145	\$37	\$37
Rate per Kilometer	22¢	30¢ (22¢)*	37¢ (26¢)*	13¢
Monday to Wednesday *Off Peak	\$1.76/hr or \$19.36/day (Monday to Wednesday)			\$4.95/hr or \$49.50/day (Monday to Friday)
Thursday to Sunday *Peak	\$2.34/hr or \$25.74/day (Thursday to Sunday)			\$5.95/hr or \$59.50/day (Saturday and Sunday)
Access to Long Distance Rates (Communauto cars)	Yes	Yes	Yes	No
Aces to Network Reservations (participating rental companies)	Yes	Yes	Yes	Yes
Access to the Workweek Rate	Yes	No	No	No
*Package B and C's lower rate per kilometer are for pre-planned/reserved long distance driving of +100km in/during rental period.				

Zipcar Pricing Structure			
Occasional Driving Plan		*Extra Value Plans	
When you join			
Annual fee	\$65	Annual fee	none
Monthly commitment	none	Monthly commitment	\$50 minimum
Application fee	\$30	Application fee	\$30
Driving discount	none	Driving discount	10%
When you drive: Monday–Thursday			
Hourly rates from	\$8.75	Hourly rates from	\$7.88
Daily rates from	\$77	Daily rates from	\$69.30
When you drive: Friday–Sunday			
Hourly rates from	\$12	Hourly rates from	\$10.80
Daily rates from	\$83	Daily rates from	\$74.70
What's included			
Gas	✓	Gas	✓
Insurance	✓	Insurance	✓
200 free kilometers	✓	200 free kilometers	✓
Intended for first time car sharers. Benefits those who plan on using Zipcar a couple of times per month.		Four monthly commitment options: \$50, \$75, \$125, and \$250.	
		*Rates are based on the \$50 commitment option.	

Note: The Canadian and U.S. dollar had been roughly at parity for several years.

Exhibit 6: Car Sharing Positioning Map



Source: Schwarz, Joachim (1999). Presentation at Car-Free Cities Working Group Seminar, London, England. Reprinted with permission.

Exhibit 7: Advertisements in Public Transit Spaces



Source: Communauto. (2010).

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