

Parisians turn to  
pedal power—  
changing how  
people commute  
and cleaning up the  
city in the  
process.

by Tom Sullivan

# Vive la Révolution



## The French clearly have a love of bicycles that ranks right up there with wine and cheese.

This is, after all, the home of the Tour de France, the world's largest cycling race. So the fact that citizens of the country's capital were hesitant to hit the city streets on their bikes came as a bit of a surprise.

Even after 400 kilometers (approximately 249 miles) of new bike lanes had been created in the previous five years, a 2005 study by the city revealed Parisians were still reluctant to cruise the capital on two wheels. Residents cited a lack of bike stands, problems with theft and vandalism, maintenance costs and the "animated" Parisian driving style.

Looking to curb pollution and ease traffic flow, municipal authorities gambled on a massive influx of easy-to-use and nearly free-to-rent cycles to give local biking a kick-start.

It worked.

Dubbed *Vélib*—from the French words for bicycle (*vélo*) and freedom

(*liberté*)—the program now attracts 100,000 to 150,000 users per day.

"There was a strong political will to make the project work—politicians wanted to bring the bicycle back to the city to reduce congestion and pollution and improve quality of life," says Céline Lepault, project manager in the transport department for the Ville de Paris. "Parisians were making a lot of unnecessary trips by car that could just as easily be made by bicycle."

That's not to say it was an entirely smooth ride.

### THINK GRANDE

In 2005, the city announced a public tender for a minimum of 10,648 rental bikes and 750 stations to be ready for the day after the country's independence day—and the city's biggest annual party—Bastille Day on 14 July, 2007. During the bidding, the number rose to 20,600 bikes and 1,450 stations, with the added equipment to be gradually phased in following the launch.

Funding for the project was to come from a private contractor. Under the deal, a company would set up the bike-rental scheme in exchange for exclusive rights to the French capital's 1,628 billboards for 10 years, a contract worth an estimated €60 million per year.

French outdoor advertising giant JCDecaux was declared the winner, but U.S. rival Clear Channel Outdoor launched a legal challenge charging anti-competitive practices.

The court eventually ruled in favor of JCDecaux, which is counting on the sale of advertising to cover its running costs and recoup the initial €90 million investment to launch the project.

By the time JCDecaux took over, the project was three months behind schedule—and the deadline wasn't budging. The city's politicians had staked their reputation on the project's success and elections were slated for the

next year. JCDecaux worked around the clock with a team from the city to complete the project in record time.

"It was 95 percent work and 5 percent luck," says Albert Asséraf, executive vice president of strategy, research and marketing, France at JCDecaux. "There was zero room for setbacks in the project because the deadlines were so tight."

"If a provider was not up to the job, we found another within hours. When rain slowed things down, we made up the time. The danger of the timetable slipping was with us all the time and if we'd been hit with a big problem we would never have succeeded."

### IN GEAR

The project team was comprised of eight to 10 members from the city's transport department and the senior management of JCDecaux. Ten groups addressed issues such as bicycle production, IT, subscriptions, station construction and electronic payments.

To avoid long queues, Vélib uses cards that release bicycles at the point where they are attached rather than at a terminal. A one-day pass for the program costs €1, a weekly pass €5 and an annual subscription €29. Users without a subscription swipe a credit card to rent a bike.

To keep bikes rotating among users, riders are charged a relatively high rate of one euro for each extra half hour. That decision was based on the city's research revealing the average utilitarian bicycle trip in Paris is about 20 minutes.

Riders also agree to a €150 security deposit.

Electronic payment information, along with bike-location data, is transmitted by GPRS (general packet radio service) cell phone technology to a central server. To guard against network disruptions, the city required JCDecaux to subcontract two telecom operators. The system was designed to

## Bike Path

### 2005

A government study reveals that despite a massive expansion of designated lanes, cycling is not increasing in Paris. Municipal authorities launch a "competitive dialogue" that attracts the interest of three companies.

### December 2006

Project awarded to JCDecaux but the decision is contested in court by Clear Channel Outdoor.

### February 2007

Once the court rules in favor of JCDecaux, the project is already three months behind.

### 30 May 2007

540 bicycle stations are built or under construction.

### 15 July 2007

Project launches with 10,648 bicycles and 750 stations.

### 3 September 2007

Capacity is increased to 14,197 bicycles and 1,000 stations.

### December 2007

Program grows to 15,000 bicycles and 1,200 stations.

### August 2008

Optimal capacity is reached: 20,650 bicycles and 1,450 stations.

handle double the expected number of users and can accommodate up to 40,000 bikes.

The technology also helped take some pressure off the time-pressed team.

"We chose GPRS because it shortened the construction time," says Mr. Asséraf. "Even if we had more time, laying down cables would have caused a lot of disruption to traffic. We wanted the construction work to have a 'light touch.'"

## Vacation Plans

The official Vélib project launch date of 15 July was chosen with great care. The day after Bastille Day, it also marks the unofficial exodus of Parisians headed off for their traditional month-long holiday. With less traffic, Vélib could get a more leisurely test ride.

"There were some road-safety issues, which concerned us. We expected a lot of inexperienced cyclists to use the bikes and we wanted them to find their place in the city gradually," says Céline Lepault, Ville de Paris. "And we wanted drivers to have to adapt to cyclists after the vacation and not the other way around."

## La Révolution, Part Deux

Looking to build on the mass success of its Vélib bike-sharing program, the city of Paris is set to roll out a similar scheme for electric cars. Dubbed Autolib, the new program will include 700 stations where users can check out cars for brief trips anywhere in the city and its nearest suburbs.

The program is designed to provide “a completely clean system of travel for users in the city of Paris,” says the city’s mayor Bertrand Delanoë.

Autolib will work similarly to Vélib, where drivers can purchase an annual subscription or just go directly to a station and rent immediately by paying a one-time fee or using their public transport pass.

“This could revolutionize transport,” Mr. Delanoë told French radio.

Users can recharge the cars at various locations across the city. A computer system will also allow drivers to select their destination so a parking spot will be ready upon arrival.

Slated for completion by late 2009, the project will put 4,000 electric cars on the streets. It’s believed to mark the first time a major city has launched a program of this type on such a grand scale.

But Autolib is not without its critics, who argue it might encourage users of bikes or public transit to opt for cars instead, adding to already heavy congestion in the city.

City officials took on the tasks of fast-tracking building permits and communicating with stakeholders.

Ms. Lepault says the small team and clear project scope helped keep the project moving. “As there were so few of us on the project, communications were not a problem. We met weekly and passed on information quickly. We focused on the biggest risks from the start—getting all the stations built on time and getting public support.”

The team knew the key to winning over stakeholders was to have enough bikes on hand.

“When we looked at other examples of city bike schemes, we found many didn’t work because they were too small. Cyclists like to travel door-to-door, so they need pick-up and drop-off locations nearby,” explains Ms. Lepault. “We wanted to cover the entire city, so that no matter where people live they would have the right to use a bicycle. Vélib is a form of public transport, so it needs to be accessible to everyone.”

To figure out the likely demand for bicycles, the team divided the city into 200-square-meter (2,153-square-foot) boxes and studied the density of population, commerce and transport infrastructure, Ms. Lepault says.

“Then we did a lot of awareness-raising and persuasion to get the local mayors on board,” she says. “Some were reluctant at first to give up space allocated for car parks and other projects.”

And the team didn’t forget the residents.

People were skeptical at first, admits Ms. Lepault. Five communications officers targeted the media, but also charmed the local citizenry in conversations at cafés, bakeries and town squares. Bicycle stations were set up outside district municipal buildings in every district two months ahead of the launch date to demonstrate how the system would work.



€90  
million  
The initial  
project  
investment  
by  
JCDecaux



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—Albert Asséraf, JCDecaux, Paris, France

The team's efforts paid off.

Even before anyone saw an actual bike in operation, the scheme had snared 10,000 subscribers. And the highly public profile of Vélib motivated the 400 construction workers, mechanics, engineers and administrative staff to work even harder, says Mr. Asséraf.

"We are used to putting up hundreds of bus shelters in cities within just a few days, but the public is not usually aware of what we are doing," he says. "This time we were in the spotlight. The press and TV were talking constantly about the project. People were asking our teams at the building sites how it would work."

### BUMPS IN THE ROAD

Even under the tight deadline, the project officially launched on schedule. But within days, the team spotted some snags—including the high number of people renting the bikes for three- and four-hour periods. It turned out an IT glitch meant the system wasn't always locking in and registering returned bikes. "We fixed the problem right away and cancelled all charges to customers," Ms. Lepault says.

A similar problem also contributed to a high level of theft—3,000 cycles were stolen in the program's first year. "Many of the bikes were badly attached to the stations. The thieves realized this and pulled them until they came loose," she explains. "Now we've added an alarm that rings until they are properly attached. And if people lose a bike more than three times, they are blacklisted."

Just as bikes get stolen, bikes get broken, so the team had to figure out an effective process for managing damaged bikes. So, along with more than a hundred mechanics who fix bikes on site, a barge on the River Seine was converted into a repair workshop that picks up badly damaged bikes at points throughout the city.

The team also had to readjust its distribution plan, as well as convince the French Department of Labor to authorize work outside of the country's normal hours.

"We have up to 150,000 rentals per day and more than 15 percent of them are between 10 p.m. and 6 a.m.," explains Mr. Asséraf. "Until we got permission for night work, our staff had to put down tools at 10 p.m. and then fight their way through rush-hour traffic every morning at 6 a.m. to get the bikes to where they were needed."

### A CHANGED CITY

Since Vélib launched, it has attracted 100,000 to 150,000 users per day. And the total number of rentals passed 28.5 million in late July.

Ms. Lepault says one of the reasons the project worked was because the team took time to fully understand what end-users wanted.

"We purposely staggered the rollout to gauge the flow of the bikes around the city. At the end of 2007, we had 15,000 bikes and the final 5,000 were added in the past few months," she says. "If we had built all the stations in the first year we wouldn't have had the flexibility to respond to demand."

These days, Mr. Asséraf claims that no matter where you are in the city, a Vélib bike will pass you within 60 seconds.

The project has been a major boon for his company, which has been inundated with visits from city mayors scattered around the world—from Chicago, Illinois, USA to Tokyo, Japan—looking to launch their own versions of Vélib.

"There are two ways to do a city bike scheme," Mr. Asséraf says. "You can put a few bikes here and there for the novelty, as a kind of city gadget. Or you can do a real project that transforms the entire city. Paris will never be the same again." PM