

# VÉcoLO

## The current issue

We have identified multiple existing issues. The first one is that more and more people rely on bikes for their commutes. Secondly in Paris Velib is a key actor in the domain but the operator, Smovengo is unable to reach the optimum level of functioning Velib.

According to Fluctuo, a startup working in the field of mobilities and especially free floating services, on the previous RATP strike on September 13 2019 the number of rented bikes through Jump (Uber), Mobike and Oribiky increased by 129%. What this implies is that people can switch from car, buses or metro to biking. Furthermore the city of Paris has invested massively to create appropriate bike lanes on the most used streets of the city. It is now easier and safer to commute. Our point is that today there are more benefits to rely on a bike than before and so people should be more encouraged to do so. Bikes come to be highly useful when it comes to relatively small distances. Velib in that sense is a great complement to the existing public infrastructures. At the same time the pollution in Paris is fairly high, streets are full with vehicles and public transports are overcrowded.

In May 2019, *Le Parisien* (a french daily newspaper) was still describing the multiple flaws of the current Velib in Paris and *petite couronne*. The journalist Christine Henry and Stanislas de Livonnière were pointing out that many Velib stations were still empty or filled with broken bicycles. As the sunny days were starting to show up, and so the possibility to use this eco friendly mean of transport, it actually was not possible.

Velib was created in 2007 by JC Decaux, known for its street furnitures. In its greatest hours the service counted 300 000 subscribers and 100 000 daily commutes. In 2017, the contract passed with the city of Paris came to an end. It was not extended and instead the new comer, the young startup Smovengo, was granted with the task of replacing the existing Velib system. The change implied a complete destruction and complete rebuilding of the Velib stations. In May 2019 the replacement of the 1400 stations was still not over. Only 1281 (957 in Paris and 324 in the suburbs) had been completed meaning 119 were still under construction work as the one near Convention metro stop. In March 2019 there were 10 878 Velibs but Bertrand Lambert, journalist in charge of "Transportez-moi" on *France 3 Paris Île-*

*de-France* pointed out that the numbers fell to 7200 a month later. Today the numbers are more encouraging but often what the users notice are empty stations or broken bikes. Smovengo had indeed been accused of leaving broken bikes in the stations to artificially increase the number of bikes in circulation.

## **The Ecological issue**

Parisians are choking on fine particles coming from the vehicles. The city of Paris in the person of Anne Hidalgo the current mayor has declared a war on pollution. One set of measure is to ban diesel vehicles from the capital but this cannot be done without resorting to other means of transport. Air pollution is responsible for the death of 48 000 to 67 000 person every year in France. The European Commission considers it to be the number one health issue linked to the environment. One important element is that in ten years when the Velib contract with the city of Paris will be over there will be another one made with another firm. To avoid the ecological disaster that it was to throw away and replace all the stations our idea would consist in saving them. What we intend to do is to divide the existing company in two different ones. On one hand there would be one company in charge of exploiting the stations and on the other hand there would be several companies competing to provide different Velibs to Parisians. The main idea is to save what can be save from the existing infrastructures.

## **The Social issue**

Not everybody is affected in the same way by the pollution. People who live near the *Périphérique* suffer greater health issue than people living in *St Germain des Prés*. In addition to that the population the most at risk are children when they are in school playing in the playground. If we take a broader view France is faced with a tremendous level of unemployment. To tackle this lasting issue it is more than necessary to restore the french industry, especially in the northern part of France where deindustrialisation hit the most. This is why our goal is to produce in France french bikes at an affordable cost.

## **The Individual issue**

Parisians are the people spending the most time stuck in traffic jams on a daily basis. By encouraging them to use bikes we erase as many cars from the roads. People collectively would individually ear time. Furthermore the advantages of using a bike are multiple : better

health, more personal time, higher savings because not using a car and gasoline is not getting cheaper. One main challenge is to convince people from switching their behaviour, from taking their car or the buses or the metro and instead taking a bike. The december strikes has shown that people could use their bikes and with more bike lanes in the city of Paris it will be easier and easier to navigate it.

## Our idea

We want to start a new company of shared bikes, called "VÉcoLo". Our bikes must be 100% French-made, with recycled materials. Our goal is to create high quality bikes, built in solid and durable material (unlike most of the current shared bikes, which are often left broken on the street or on bike parkings), with a strong French brand identity.

The user's comfort and satisfaction are our priority. People are likely to choose our bikes for different reasons :

Firstly, to support French production and creation. Short supply chains of production and distribution will stand in sharp contrasts with the current competition : all Jump uber bikes, Mobikes or Lime scooters are made in China. Even if the newest velib is mostly French-made or assembled in France, we still believe that we could make a difference on the quality of the bikes, and on communication about French made.

Then, because they will be more convenient to use. Velibs only work with subscriptions and daily (or weekly) passes, that requires to a complicated process (creating an account, giving a mail address, birth date or phone numbers). On our bikes, we will use a direct contactless system : this way, the process will be easy and convenient, especially for occasional users such as tourists. Long-term subscriptions will also be available for more usual clients, in order to build client loyalty and give more competitive prices. We also want to build lighter and balances bikes, in comparison to Velibs, which are heavy (more than 20kg) and unbalanced (way heavier on the front of the bike, partly because of the electronic system).

We also want our users to create a strong connection with environmental and ecological issues, especially carbon footprint. This is why we will show on our navigation app the user's carbon footprint savings (by comparing a car's footprint on the same itinerary, for instance) to gratify him and thus to encourage him to use more durable and responsible means of transport.

The other part of our project is the intention to use Velib parking slots, an idea that relies on the assumption that these parkings will be at some point open to competition. This is why we must consider two scenarios :

- **Assuming the split**

If Smovengo splits into two companies, one taking care of the bikes themselves, and the other bike parkings, the latter could be open to competition. Our company will be able to rent these parkings. The idea is to provide more bikes in convenient and determined spaces. This is mainly to avoid the current situation with Mobike, Jump or Limes being abandoned in the middle of the streets on sometimes even in roads, an issue that participates to creating chaos in the street of Paris, and can be dangerous both for car, bikes or walkers. Using parkings is also a good remedy against broken bikes, stolen bikes. It will also be more convenient for usual users : they will know where to find bikes when they need them.

- **Without assuming the split** (see “Major risks and actions to reduce them”, 1. *Smovengo does not accept to rent velib parking slot*)

## Expected positive impact

The expected positive impacts of our projects are multiple. First of all, by encouraging to use shared bikes as the main means of transport in the streets, we want to encourage reducing our carbon footprint, to limit greenhouse gas. This can have a certain impact on pollution in Paris, and at a wider range, on global warming.

The French made factor, which relies on short supply chains of production, also participates to the reduction of greenhouse gas and lowers the carbon footprint of our bikes. It is also a great way to dynamise French creation, and to create French jobs, with all the different processes of production that occur in the making of our bikes.

The construction of our bikes themselves is designed to have a positive impact. Using recycled materials is very important : steel, for instance, is the world’s most recycled material, and aluminium is also widely recycled. Because of that, we think we will be able to reduce our waste to a very low level, and we also consider working on repairing our own bikes or using operational parts of our broken bikes to make the recycling operant and effective.

Our philosophy is also to make the life of parisiens and tourists easier. Our bikes will be safer than velibs, with high luminosity front lights and red LEDs to make sure the bike is easy to see at night. We want to make lighter and more balanced bikes. This is why the technology must be simple but effective, to avoid technical problems and broken bikes.

## **Major risks and actions to reduce them**

### **1. Smovengo does not accept to rent velib parking slot**

If the split is not happening, or if Smovengo doesn't accept to rent velib parkings, our bikes will follow the same models of free deposit and dockless bikes that is used for Mobike, Jump or Lime scooters. But still, we want to be active in reducing broken bikes, stolen bikes, and busy streets. This is why we will highly encourage using bike parkings (not the Velib ones), by trying to provide bike lockers with each bike.

### **2. Technical issues with our bikes and the parking slots**

As seen before, finding a Velib can be difficult. However, even the customers who achieve to find a Velib can face technical difficulties. Thus, Thibault Déléaz, a reporter from Le Point denounced the technical problems with the velibs and especially the Velib parking slots after a polemic on twitter this summer. A lot of customers reported the fact that sometimes it is difficult to stop the ride and give the velib back in its parking slot. When it happens over night, the problem is not taken into account and all the night can be charged.

With our bikes, we want to ensure not only good quality but also an ideal customer service. We want to make sure the client is at the heart of our policy. This is why we want to develop a series of video tutorials in our application to make sure the client really understands and the process. Above all, we want to implement a 24/7 customer service. Thereby, if a client encounter technical issues during the night, we can assure he will have a solution as quick as possible.

### **3. Difficulties to find french manufacturer**

After during our research we found that finding an artisan that propose bikes that are 100% made in France is difficult. Thus, a huge majority of the french artisan who sell french made bike actually assemble them in France after buying the different components and pieces elsewhere (usually in Asia). Our main idea is to propose totally made in France bike in order to reduce the production circuit and foster employment in France. However, the few artisans that propose that can only produce bike in little quantity and at a very expensive price. If we can not achieve to find one which satisfies our requirements we will change our branding and propose bikes that are assembled in France but with components made in Europe. Italy, for example, have good bike manufacturers. If we install a warehouse in the south east of France and assemble our bikes there it can reduce the production circuit and still match our philosophy.

### **4. High prices**

Without subscription, taking a Velib cost 1€ for 30 to 60 mn for normal bikes and 2€ for electric bikes.

The subscription cost 3€ per month to have access to rides at 1€ per hours (if the ride takes more than an hour) 30 minutes free rides.

Thus, Velib are accessible because of the cheap prices. If we create a french made high quality bike, it can make the prices rise. One of our main challenge is that our bike have to be cheaper than Velib and other free deposit bikes (such as jump, mobike, Ofo, etc.) or at least at the same price as the Velib. Indeed, if we offer more expensive bikes than Velib and use the same parking slots as them, customer will choose the velib bike over ours. Therefore, we need to find a solution to build a resistant, high quality and french made bike and at the same time offer competitive price. Since we want to use the contacts technology with can be used with a QR code, we want to develop a smartphone application for our bikes. The application can provide an advertising platform and allow us to gain money to compensate for the cheap price of our bikes. We will also find french sponsors willing to help us finance our project.

# Deployment strategy and major milestones

## 1. Strong lobbying at the city council

This project will require an important work of lobbying at the city council to ask for the split of the Smovengo company. We will expose our arguments in favor of this emphasizing that this will be in the best interest of both Parisians and the city. Indeed if the city had to replace all the bike stations it would mean that there would once again be plenty of construction works in the capital. However Paris would not bear once again this scenario. And it would have delays to the deployment of the bikes in the city. In this time frame the Parisians could turn their back on this biking system and it is crucial for us to prevent that.

## 2. Launch of the factory

Our plant would be located in the northern part of France and we would start producing before getting the approval of the city of Paris because in any case we want to have our bikes in the street available to Parisians. The plant should be eco friendly, employ qualified workers that we would train on site.

## 3. First bike in the streets

As soon as we have enough bikes we start deploying them into the streets of Paris and the Parisian suburbs. We want to emphasize the Parisian suburbs first and the streets that are far from the center of Paris because our research revealed that there is usually more velib available in the center of Paris and at highly touristic places.

## 4. Deployment in other French cities

If our business is as successful as we hope it can be we will be in the capacity of exporting it. The possibilities are vast. Our ambition is to propose our bike in every city of France in order to allow everyone to lower their carbon footprint. Our model will be easy to implement in cities where the municipality already implemented bikes services (such as Lyon with the "VéloV" ) and also in cities where there is not such as Reims because we also want to create dockless and free deposit bikes.

On the European level, we could reach out cities like Berlin or Madrid. The Danes are not as famous as the Dutch for using bikes and yet they are almost all using it. This proves that Paris

is not alone in the race and that other places are also experimenting new mobilities. Our model is absolutely in line with the COP21 Paris agreement.

## Return on investment analysis

Subsidies attributed by the city of Paris 16,000,000 euros in 2013 when there were less than 12000 velib so the price given to the operating company was of 1333 euros per bikes.

If we assume we get half of the market we could have 8000 bikes in the streets because today there are 16000 parking spaces. Should there be more cities in the suburbs to wish to have velib stations then we could increase the number to 20000 parking slots and so 10000 velibs. We are assuming that we have to renew half of the fleet every year due to damages.

Cost of a Velib based on the deposit paid	300 EUR
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	Situation when entering the market	Our Share
Number of velibs	20 000	10 000
Number of commutes in a month	2 000 000	1 000 000
Number of subscribers	300 000	150 000
Hours rent in a month	500 000	250 000
Percentage of commutes made by one time users	93 %	$2\,000\,000 \times 0,07 = 140\,000$

So 93% of 2 million commutes are made by one time users. That makes 140 000 rides.

$140\,000 \times 1 \text{ EUR to unlock the bike} + 26 \text{ minutes} \times 0,15 \text{ EUR for using the bikes} = 749\,375 \text{ EUR a month.}$

If we manage to get 100 000 subscribers paying 80 EUR for a year that's 8 000 000 EUR of revenues.



	Year 1	Year 2	Year 3	Year 4	Year 5
Revenues from subscribers	8000000	8000000	8000000	8000000	8000000
Revenues from one time users for a year	8992500	8992500	8992500	8992500	8992500
Revenues from ads displayed on the bikes	200000	200000	200000	200000	200000
Total revenues	17192500	17192500	17192500	17192500	17192500
Cost of a Velib	300	300	300	300	300
Number of Velibs	10000	5000	5000	5000	5000
Investment in the fleet	3000000	1500000	1500000	1500000	1500000
Cost of renting a spot for the fleet	750000	750000	750000	750000	750000
Total Cost	3750000	2250000	2250000	2250000	2250000
Operating income	13442500	14942500	14942500	14942500	14942500