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urban compost

SciencesPo
SCHOOL OF MANAGEMENT
AND INNOVATION

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NOTE OF INTENT

PROBLEM

**What is the problem? What is at stake? What needs? What constraints?
Why is the problem important?**

The problem we are trying to tackle is food waste in France. With 10M ton of food wasted yearly in the country, France is way behind others in Europe. We aim at closing the loop with composting. By changing mentalities and raising awareness, we want to encourage and ease what could be a new habit to diminish our pollution. As the food we waste is mainly composed of water, it being sent to incinerators, in huge quantities, makes no sense and has no future. The pollution associated with the incineration and the money wasted by non-consumed products are important. Our project's goal is to allow the Parisian population to act and to reduce social disequilibrium for those not being able to compost due to logistical constraints.

PROPOSED CONCEPT

Name, detailed description, scope. Why is it effective, original and feasible? POC and tests.

- Transtopia

Wasting food means that (1) we are producing too much (2) we are not allocating food production appropriately while some countries lack food (3) we are failing to transform that waste.

We will see that our solution will be effective if we collect enough waste. We will have to define precisely how much is satisfactory when we will have a better idea on how much is wasted and how much is wasted by inhabitants or how much is collected by type of inhabitant. Another indicator would be the profit made by our startup.

How to recycle 10M tons of food waste in France every year in a way that would benefit biodiversity:

> We are not looking to curb food waste 'a priori' but 'a posteriori': we are not proposing a solution curbing food waste in itself, but a solution a transform that waste into compost, which will be used in agriculture.

We will define exactly our business model later: the idea is that we would collect waste, transform it into compost and sell it to farmers or public parks/gardens.

- Changing mentalities, valorising waste through a “second life” (effective: no pollution associated to composting), helping local community and farmers (OR public gardens/parks), answering the needs of many (people creating and people needing this waste)
- Composting outside the apartment -> some do not need compost thus do not have incentives to compost, modern take “ubercompost”
- There is waste, ecological mentality, logistically feasible, technology is already present, reinvesting profits made, cost-effective, people want to reduce their waste in order to pay less for bin/eboueur
- We would try our concept in the 11th arrondissement: young population, residential (not too touristic) not too big or little (population and size wise), dynamic, local politics (public help with the maire), values of environmental consciousness -> see if we can spread in other surrounding arrondissement (10e would be our next target)
- Communication used: social media (using facebook groups “environment” “11” etc), dynamic, mostly digital since less polluting, door to door, via associations, world clean up day, brocante and markets, word of mouth, talk to restaurants that might be interested in the initiative

EXPECTED POSITIVE IMPACTS

Quantitative and Qualitative sustainability of the solution

Quantitative sustainability: According to a survey conducted by IFOP¹, over one in two French sort their kitchen waste (leftover meals, vegetable peelings, etc.), either by giving them to animals or by composting. However, 44% declare that they put litter in the same bin as other household waste, which is mainly due to urban life in an apartment with limited space.

¹ Survey French Sensitivity to Waste Prevention, 2016 (IFOP for ADEME)

One in two people in France practices composting regularly. People who prefer buying organic co-operatives and direct sales are more likely to do so, as well as those living in rural areas or isolated homes.

Our goal is to democratize those habits to urban areas, with a focus on Paris.

Echoing the 2017 initiative of delivering mini-bins for food waste to inhabitants living in the 2nd and 12th arrondissements, we have decided to propose a door-to-door composting collection service, with the use of an application. Based on their experience, 7 to 8 litre bins and composting bags can be used by each potential household for collecting their food waste.

2015 INSEE statistics have shown that the 11th arrondissement holds 85 000 households for 150 000 inhabitants². As waste is only recycled up to 14.22% in the capital³, which is one of the 10 departments with the least progress in 10 years, our goal is to have as many people recycling than composting, hoping to reach 15% of the population.

Therefore, we estimate that of the 85 000 households of the 11th arrondissement, around 10 000 households would have an interest in our service.

Qualitative sustainability: Domestic composting is a simple and effective way to divert bio-waste from households. It is a process of natural degradation of organic matter resulting in a stabilized product that is compost. This product represents a natural fertilizer for plants and a rich soil amendment.

Our solution should change the behavior of French people, in order to respond to a growing need for citizens' actions for sustainability.

Eventually, our service should enhance the trend of adopting other ways to consume, and will contribute to slowly changing mentalities, making what used to be a constraint a habit.

MAJORS RISKS AND ACTIONS TO PREVENT THEM

The major risk identified for TransTopia would be the **lack of motivation** of our potential users.

Acts of consumption are largely related to social norms in force within groups of belonging (ritual gifts, fashion, means of communication, etc.). To consume is to participate in society - and as individuals, consumers do not always have a choice, contrary to popular belief that consumption is based on free will. Social norms therefore give an important role to media, celebrities or brands, among others. Surfing on the growing recycling trend our society is experimenting, we expect our project to change habits starting from a small population.

² <https://www.insee.fr/fr/statistiques/2011101?geo=COM-75111>

³

<http://www.lefigaro.fr/economie/le-scan-eco/dessous-chiffres/2017/05/10/29006-20170510ARTFIG00005-dechets-quels-sont-les-departements-champions-du-recyclage.php>

With a focus on online communication to reach potential users, our service should benefit from word of mouth and shares between local communities. We expect our service to spread rapidly through the small community we have targeted, in order to tackle its potential lack of motivation. Directly contacting influencers is also an option, allowing our service to gain attractivity.

Another risk is the **potential competition** with other local initiatives and with already implemented waste collection structures. Indeed, more and more communities in the Paris region are engaging in actions to promote home composting. In 2014, there were nearly 162,880 individual composters⁴ distributed in the Île-de-France region. Communities work in partnership with donors to develop shared composting in front of buildings or even in schools. Most of these are local authorities involved in a local waste prevention program that deploy this type of action on their territory.

In Paris, lack of space prevents inhabitants from creating compost for gardens. Furthermore, our solution will be based on door to door collection, facilitating the life of our users who will need minimum effort to use our service.

DEPLOYMENT STRATEGY AND MAJOR MILESTONES

How is this project implemented, with what steps?

We will first focus on a small sample of the population before expanding our project. The 11th arrondissement of Paris is, in our opinion, a good place to start. We will communicate extensively on our initiative in this area, through the distribution of flyers as well as online, targeting Facebook groups gathering inhabitants of this area. For our offline communication, our goal is to target individual households. This will create a much more authentic relationship with our users as well as make them more accountable. Besides, we will be able to gather feedback and improve our solution according to the needs and remarks of our sample.

We have also contacted the city hall in order to gain public support and boost the realisation of our project. This partnership would facilitate the implementation of TransTopia as well as reinforce our credibility.

RETURN ON INVESTMENT ANALYSIS

Estimated costs and gains

⁴ http://www.ordif.com/sites/ordif/files/document/publication/ordif_tdb2016_web.pdf

The estimate costs would first be on our equipment, especially bicycles to collect and transport the compost. There would also be a labour cost for the pay of our employees, as well as communication costs. Although, the latter is mainly digital, we need to keep in mind the cost of printing flyers and potential Facebook adverts (2€ per ad). Creating the app and maintaining it is also included in our list of costs.

For the user, the costs are limited. They will only need a reusable bin to collect their compost as well as a smartphone to download the app.

- Non-profit -> selling the compost to farmers/mairie/cooperative to cover the cost of labour and equipment

We will estimate the number of employees required to collect and transport the compost from households, as well as the amount of compost gathered.

ORGANIZATION

Organization, resources and skills required. Partners, sponsors of the project.

Our team is diverse and complementary. All students at Sciences Po, we come from diverse backgrounds and hope to use this as a strength for the success of our project. While some of us have strong operational and financial skills, we also have team members with past experiences in design, marketing and communication.

Our goal is to create a partnership with the Paris city hall (Mairie de Paris), especially at first with the 11e arrondissement, which we have already contacted. Given that we aim to redistribute the compost to farmers so as to create organic fertiliser for their land, we are considering creating partnerships with several farming businesses in the countryside.

Our action does not stop at the level of the individual household. We will also get in touch with restaurants who might be interested in recycling their organic waste and collect their compost. Similarly, we are considering partnerships with local markets and organic supermarkets such as Biocoop, Naturalia or Bio c'bon, whose values match with ours. These partnerships and sponsorships will allow us to acquire a larger visibility and reinforce our image in order to globally fight food waste in France.

BUSINESS MODEL

KEY PARTNERS

Townhalls, Regional councils, Environmental activists, public investors (BPI France,...), private investors

KEY ACTIVITIES

Connect - connect people who have waste with people who want to use waste/compost in agriculture

Collect - collect food waste through our “deliveroo boys”

Transform - Transformation of food waste into compost

Sell - sell compost to organic farmers

KEY RESOURCES

Physical Assets

Food waste

Deliveroo Boys

Compost

Immaterial Assets

customer relationship

customer data

VALUE PROPOSITION

Mission

Thanks to natural food waste collected from people who didn't use it, transform and sell natural compost to farmers.

Value Creation

Thanks to a free resource, create a commercial good

CUSTOMER RELATIONSHIP

Creation of community based on two shared value: fighting against food waste and chemical-free/100% organic production. The relationship we build with users is as personal as possible, thanks to insights we get from their personal data.

CHANNELS

For people giving the resource: social media (Facebook), media

For the farmers: distribution of the organic compost to agricultural cooperatives where farmers can come and buy it (word of mouth)

CUSTOMER SEGMENTS

Bio/organic farmers near the Paris area

COST STRUCTURE

Fixed costs: internet infrastructure, App development,

Variable costs: Delivery men salaries & Equipment (bicycles), rent of lands for composting, advertising

REVENUE STREAM

- Farmers buy compost
 - Selling customer data (only to other environmental friendly companies)
 - Advertising for other products (organic only)
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SOCIAL & ENVIRONMENTAL COSTS

This business is meant to be social and environmental friendly.

SOCIAL & ENVIRONMENTAL BENEFITS

We hire delivery men with fixed employment contracts instead of doing like Deliveroo which only provides zero hour contracts (ultra flexible/precarious jobs).

Fixed salaries are a cost yet it can boost brand image and social wellbeing of employees.

Participation of urban actors to the fight against waste, involvement of the farmers in the fight against food waste.

Organic agriculture > healthier population (less cancer rate, less social health expenses, etc) , healthier planet

THANK YOU.

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