#### WHY "1CHI SOLUTION"?

As we were assigned group number 1, we chose to keep this number in our team name as we want to provide the number 1 solution (meaning the best one) to current issues. We translated "one" to Japanese: "ichi" and replaced the first "i" with a "1" in order to keep a strong visual identity.

# **1chi Solution** Note of Intent

# ACH SOUTION

The Great Transition Sciences Po Fall 2018

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# 1. Description of the Problem

It is no secret that plastic pollution has become a crucial issue today. In 2016, world plastic production totaled around 335 million metric tons. Today, 1 million plastic bottles are bought every minute around the world. The majority of plastic consumption comes from plastic packaging which represents 42% of all non-fiber plastic produced in 2015 and 52% of all plastics thrown away. France alone generates 104 kg of plastic every second, making it the third biggest European generator of plastic. Consumption of plastic affects all humans and biodiversity in general considering most plastic, bottles included, ends up in either the ocean or in a landfill. In fact, more than 8 million tons of plastic are dumped in our oceans every year. Moreover, it is estimated that by 2050 the ocean will contain more plastic by weight than fish. Currently, there are no signs of decreasing plastic consumption.

Out of all plastic items produced and consumed in the EU, plastic bottles represent the second largest share. In France, 5.5 billion water bottles are sold per year, meaning 175 every second, even though tap water is 120 times cheaper than bottled water.

If plastic consumption is increasing at a fast rate, recycling is not following. 91% of all plastic is not recycled in the world. France ranks 21st in Europe for recycling plastic waste with only 20% of plastic recycled, the rest being burnt. This is lower than in other European



countries, where around 30% of plastic waste is recycled on average. Government legislations have been implemented in France, with for instance, a penalty on the use of nonrecyclable packaging of 10% of the price of the good. This is to be implemented before 2025. Another law has been passed to ban all plastic cups, cutlery and plates by 2020. Lawmakers are also pushing for a ban on plastic water

bottles in school cafeterias from 2020. Yet, it is estimated that it would take between 20 and 40 years to get to 100% plastic recycled in France. The problem remains, there are still no cheaper alternatives right now and the government's efforts are still insufficient.

# 2. Concept

The objective of 1chi Solution is to contribute to the reduction of plastic consumption and to a higher recycling rate in France. First, we want to reduce the plastic consumption at Sciences Po with the clear vision to spread our idea to other Parisian universities in the future.

In order to reduce the amount of plastic consumption at Sciences Po, 1chi Solution will offer an incentive to the students to return the bottles to us and get them properly recycled. The students will be offered the opportunity to earn credit points: for every returned plastic bottle they get one point. When the returner has earned a certain number of points (35 in a first test run), they will get a customizable flask, that would also display the logo of our sponsors. The goal of the customization of the flask is to encourage them to refill the flask with water instead of buying a new plastic bottle each time. In the long-run we envision more water refill stations on the campuses and the city.

1chi Solution has an initial agreement with Sciences Po Environment, (a permanent association at Sciences Po with socially active students who care for environmental issues) in order to

facilitate the collection of the plastic bottles from the students. Sciences Po Environment will work as the initial point of collection where the students can return their used bottles and get their credit points. Our second key partner, "Les Joyeux Recycleurs", will pick up the bottles at the university and recycle them. In order to implement the point system in a more effective and fun way ("gamification"), a mobile application is being developed. In the short-term, this application does not only track the collected points, but



also communicates through an attractive design, the positive impacts of reducing our plastic consumption. In the long-term, it will show where to find refill stations in Paris, and create a network of environmentally aware people. Our sponsor's publicities will appear on the app as well.

# 3. Expected positive Impacts

The project has a quantitative and qualitative side to it. First of all, a general reduction in the consumption of plastic bottles has a very positive impact on the environment. Plastic waste pollutes the environment since plastic decomposes very slowly naturally (more than 450 years). Furthermore, recycled plastic products are low in demand. As of now, more plastic is recycled than actually demanded. Therefore it has to be burned, increasing CO2 emissions. When it is not recycled nor burned, it often ends up in nature and in the oceans, causing devastating effects on biodiversity and humans. As of now, we do not have an economic alternative to plastic, but there are certainly ways to reduce its negative effects be it only by reduced consumption.

Ichi Solution therefore tackles the problem from two sides. It might not be capable of stopping the consumption entirely, but at least it makes sure that the consumed plastic is recycled properly and therefore reduces environmental harm through the otherwise possible non-collection. Furthermore, the flask gives an incentive to reduce the consumption of plastic bottles. The non-consumption has by far the most positive impacts. Less plastic is consumed and the bigger the scale, companies get more incentives to research green alternatives. In the survey we conducted at Sciences Po, 0% of the students who were consuming plastic bottled - drinks, answered that they would not buy bottled drinks anymore if they had a flask. Therefore a positive impact is definitely to be expected and the purpose of this project will be fulfilled.

#### 4. Main Risks and Measures to be taken to reduce them

As underlined by our survey, many students, whether in Sciences Po or not, highlight the fact that the main reason why they don't use flasks in the first place is because they either forget it at home (thus they have to buy plastic-bottled water when in university), or because it is not convenient enough or most importantly are too lazy to buy one: you have to carry it, then you have to fill it (but when it comes to plastic-bottled water, you just buy them, drink it, and dispose of it). The main risk is that students dispose their plastic bottles at the right place, get their flask, but eventually forget it regularly or are too lazy to use it, and therefore still consume bottled-drinks.

Our measure to tackle this issue is to resolve the lack of distribution of flasks through our project. The second barrier is overcoming the laziness. Our measure is to show people the importance of not using plastic bottles in general. By advertising, giving figures on the impact it has on the environment (e.g. 1 plastic bottle not bought = x-liter ocean water not polluted by this additional bottle), we want people to get more and more concerned about environment, and to act the right way. In addition, a detailed smartphone application, will help people to find spots to refill the flasks. If the students are more informed about environmental issues, and if they know where to fill up their bottle, we expect the consumption of plastic-bottled water to decrease. In the same vein, we need to advertise our solution, so that people are aware of it.

Our solution is dependant on the cooperation of numerous different actors. It is going to be our challenge, to find viable partners and sponsorships to coordinate the process. The quality of the relationship between our partners and us will be the main factor in the success of 1chi Solution. We have to build a legal basis with the key partners in order to have a formal obligations that ensure the viability of the project in the long-run and a successful expansion.

# 5. Deployment Strategy and Key Milestones

The first step of implementing the project will be to implement the collection point at Sciences Po and to launch an advertising campaign to create awareness for the project. We would use a social media strategy that includes advertising the project on various platforms used by Sciences Po students such as Instagram, Facebook, Youtube and Twitter. For this step we are going to work with some of the influencers and our own networks.

We are going to promote the project and the app in addition to the social media campaign through word of mouth and personal engagement. By focusing on why recycling, the non-consumption of plastic and reusable flasks are having a positive impact on the environment. Furthermore, we want to encourage students to use the app, recycle and achieve a change of attitude in their daily life.



Our first big milestone, thus, is going to be the actual implementation of the collection point and creation of the point system itself. The second one is going to be creating awareness for the project and the problematic of excessive plastic bottle consumption. The third milestone is going to be handing out the first flask to the first person who successfully submitted 35 plastic bottles. The next milestones include the launch of the

smartphone application that should track the points in the future, build a community of

environmentally aware people in Parisian universities and the city and the further development and upscaling of the project.

# 6. Financial functioning

# Cost Structure:

The costs of collecting and recycling the bottles will be very low since we will work with volunteers from Sciences Po Environment, a permanent association at Sciences Po. They will firstly manage the point system manually and after the launch of the application, will provide a QR code to each person who returns plastic bottles. This help is free and the only cost factor per month will be the containers that our partner "Les Joyeux Recycleurs" would provide and collect twice a month. This service will be billed 40 euros each month (20 euros for two boxes plus 20 euros for their collection). Depending on the demand and use of this offer, it is easily extendable.

We estimated the development cost of the app to be around 4,000 euros based on different professional estimates. The cost varies vastly on the refinement of the application and its capabilities. This investment may seem high but this app would be used by a large majority of Sciences Po students and is easily expandable to other universities and might be able to create revenue in the long-term through advertisement.

Concerning the flasks, the best option we have found is the Gobi bottle. Indeed, Gobi bottles are among the cheapest on the market and they allow us to reduce the personalization costs since they are easily customizable, through a paper card display inside the bottles, as well as through the six available colors. With Gobi as a supplier, it is possible to purchase six Gobi flasks for 99 euros, and we expect a reduction of about 15% of the overall price due to the amounts bought. To start, we would purchase about 198 bottles, which would result in an expenditure of 2,805 euros.

# Revenue Stream:

We would ask our partners (Banks, NGOs) to sponsor us initially with  $7,500 \in$  to start the project and keep it viable for the first year (this amount would allow us to keep flexibility in case we need to re-order more flasks). The sponsors in return will largely benefit from the exposure that our project provides, through having their name on the flask and the application and being associated with non-profit projects. After that we hope to create enough advertisement revenue through the application in order to cover the fixed and variable costs.





Cost/Revenue structure summary:

- Investment:
  - App: 4,000 €
- Fixed costs
  - Les Joyeux Recycleurs fees: 360€ annually (9 months Sciences Po year)
  - Advertisement Budget: 200€ annually
  - App maintenance: 100€ annually
- Variable costs
  - Flasks: 85€ per pack of 6 flasks

Year 1 Costs (198 flasks): 360€ + 2,805€ + 200€ + 100€ = **3,465** € + initial investment 4000€ = **7,465**€ Year 1 Revenue: **7,500**€ Sponsors Year 2 Costs (396 flasks): 360€ + 5,610€ + 200€ + 100€ = **6,270**€

Year 2 Revenue: 10,000€ Advertisement

# 7. Organisation

1chi Solution is a non-profit organisation that aims to encourage environmental activism and create awareness for the overconsumption and unsustainability of consuming plastic extensively. It is organised and managed by students. The main activities are implementing collection points for plastic bottles, in Parisian universities and in the city, and finding viable partners that collect and recycle the bottles. It is mainly financed through sponsorships and advertising revenues.

The main skills required are negotiation and organisation. Partners have to be convinced of the viability of the project and see the positive impacts of it. Furthermore, we need advertisement skills to promote the project.

Our first key partners are the environmental association at Sciences Po and "Les Joyeux Recycleurs" for the collection and the recycling of the plastic bottles, plus the distribution of the flasks, which are made out of the eco-friendly material Tritan. Later on we need to find partners for creating the application as well as methods of extending our reach and bringing the project to other university campuses and the city as a whole.

Our key sponsors will be ideally companies that want to have a positive impact on the environment and are known for their sustainability and integrity. We have identified following companies as potential key partners: BNP Paribas and its WAI (We Are Innovation) initiative. We hope to pitch our project to get an initial funding. BNP wants to strengthen its profile as a sustainable company and invests in various projects. Other key sponsors could be NGOs such as WWF (World Wild Fund) who are seeking opportunities to support social projects that are aiming at having a positive environmental impact. In addition, their know-how could help us in finding key partners for logistical challenges, once the project works on a bigger scale.





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#### Survey:

Dates: between 16/10/2018 and the 22/10/2018 Sample: 147 students, Sciences Po

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