FOOD WASTE PROJECT

Smart Cities

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Bilbao

Bilbao

INTRODUCING IDEAS:

"This platform connects businesses that could provide food with food providing establishment where people suffering hunger could go and eat"

- It is based on a Social-Responsible project

- We could understand the business as a "Discovery", because came out of a real necessity

- The implementation of this idea will be supported by a digital application

- WIN/WIN situation

AREA OF ACTION:

		Total			Densidad de población (hab/km2)
		Total	**Hombres**	**Mujeres**	
C.A. de Euskadi		2.180.449	1.057.944	1.122.505	**301,4**
Territorios Históricos					
Araba / Álava		325.518	160.154	165.364	107,0
Bizkaia		1.140.662	548.872	591.790	515,0
Gipuzkoa		714.269	348.918	365.351	361,0
Bilbo Handia / Gran Bilbao		857.343	408.545	448.798	2.282,7
Bilbao		342.810	160.961	181.849	8.445,7

City of Klagenfurt:

Habitants	Dimension	Density of habitants (hab/Km^2)
99790	120 Km^2	831,58

We will work on Bilbao because of:

- Its surface - it is just 41,6 square kilometres

- The number of inhabitants - a big number of inhabitants can involve that the city will have lots of people suffering hunger, but also means a lot of businesses in food industry. This is good for the project in both sides

- The number of food offering businesses - we will differentiate between small partners and big partners

- Town Hall involucration on social works - same political party ruling the city since 1983. This gives stability and we know how they behave

- The city suggests positive results for the implementation of the project

"Small Establishments"
(bars, restaurants…)

"Big Establishment"

CURRENT SITUATION:

"DEMAND"

- In the city of Bilbao there are 25800 people approximately living real poverty situation

- The number of people living in the streets of Bilbao goes from 1200 to 1400 approximately

- 86,4% of homeless people use social services

- 75% out of the ones that use social services, have positive point of view about the services

Our Acting Role

- Interconnecting the suppliers and demanders

- Be the pioneers

- Involving several actors for the improvement of the major part of the society*

- Pushing for a social behavior change*

"SUPPLY"

- Hostelry business are so powerful in Bilbao: we can find 7431 establishment. Not all of them will be available for our project, but most of them yes

- 350.000 tons of food waste a year in Euskadi

How do we want to work it out:

1. We will use the App for knowing the current situation of each day. Every day will be different for the company because:
   a. We will need to visit different establishment. There is not waste of food everyday in all establishment. That's why it's important to have as many as possible collaborators.
   b. Depending on the available food, we will need to prepare a route for collecting it.
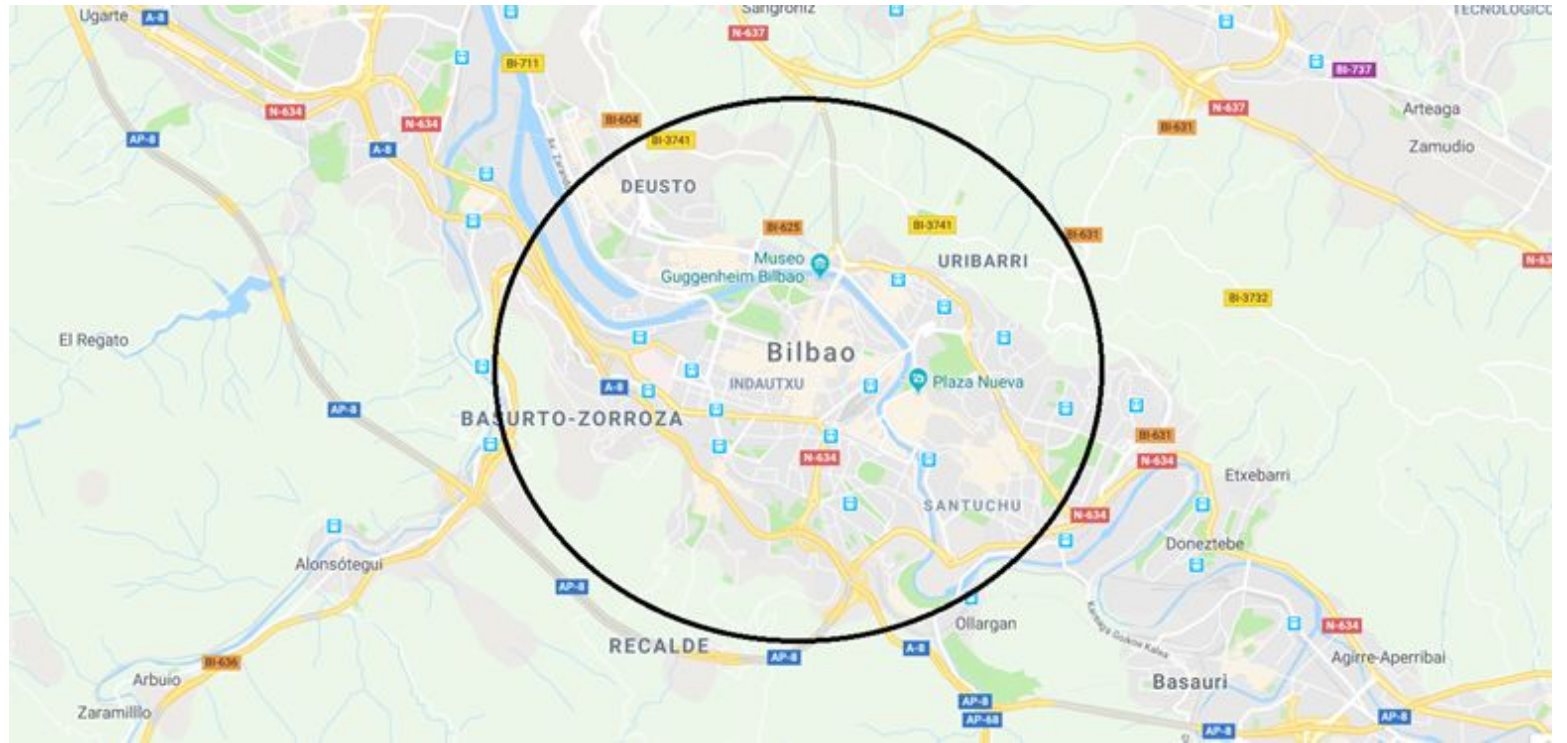
2. The company will work for **DINNER TIME**. This is because we will have the opportunity to collect more food. We will receive the lunch time food and the dinner time food. At night is also when establishments throw away the food for closing time.

3. **The planning and organization are enormously important in this project**. When the company has the necessary information, the collecting service will start working. Because of the surface of the city, we think that using bicycles and cars is the best way for taking the food.
   c. Bikes can be use for any type of establishment due to their flexibility for going around the city.
   d. Cars will be used for going to big establishments. Because they allow us to take big quantities of food.
   e. We also thought about using Public Buses for transporting. This idea comes up from a relationship with the city hall. Its an interesting way of supporting the project.

4. Finally we will need to communicate the social canteens when will they be ready for offering meals. So that they can attend people. This whole process will need a lot of effort from different sectors because of the importance of the time. But we think that in a medium or long term, the process will get efficient.

WaFoL App
Company Point of view

- Thanks to this app our company can locate the restaurant and the social canteens, this can help us to have a better transport logistics management. (Fig.1)

- Another important feature of this mobile application is the opportunity to check which restaurants give food availability. (Fig.2)
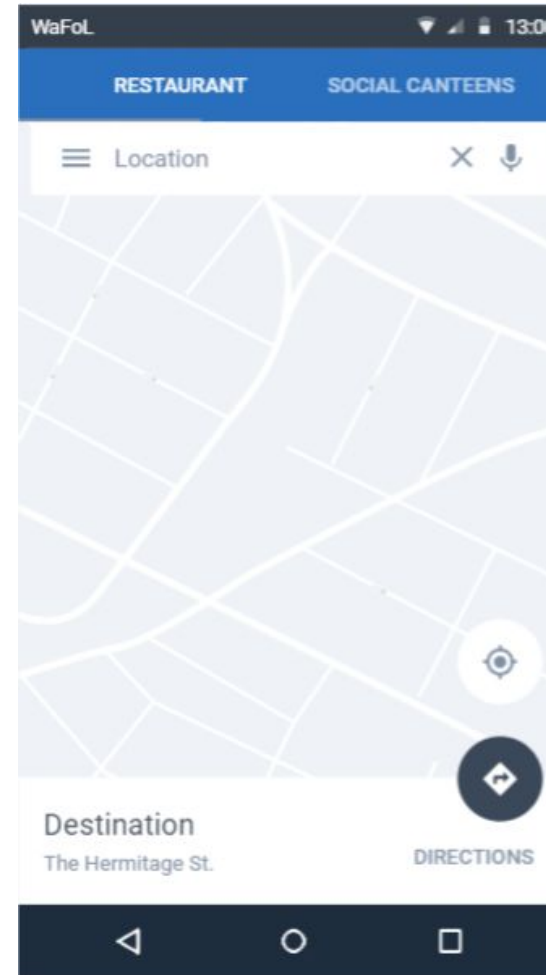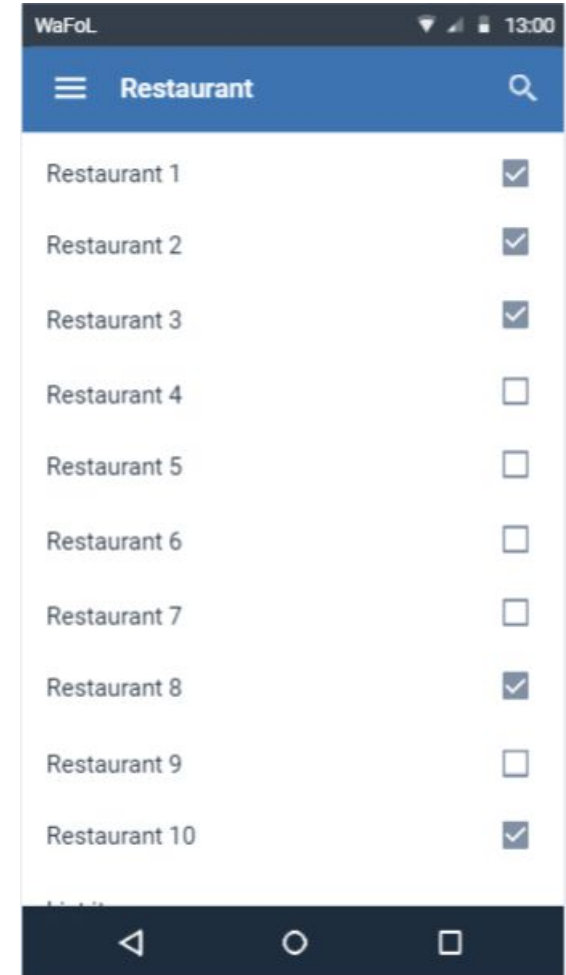

Fig.1

Fig.2

WaFoL App
Customer Point of view

- The App will be used by the customer (restaurant) too, they can log in with different kind of login using facebook twitter or just the email (Fig.3)

- Thanks to this mobile application,restaurateurs can put which kind of foods they want to "donate" and they can put the expiration date so we know how many times we have to take it from restaurant. (Fig.4)
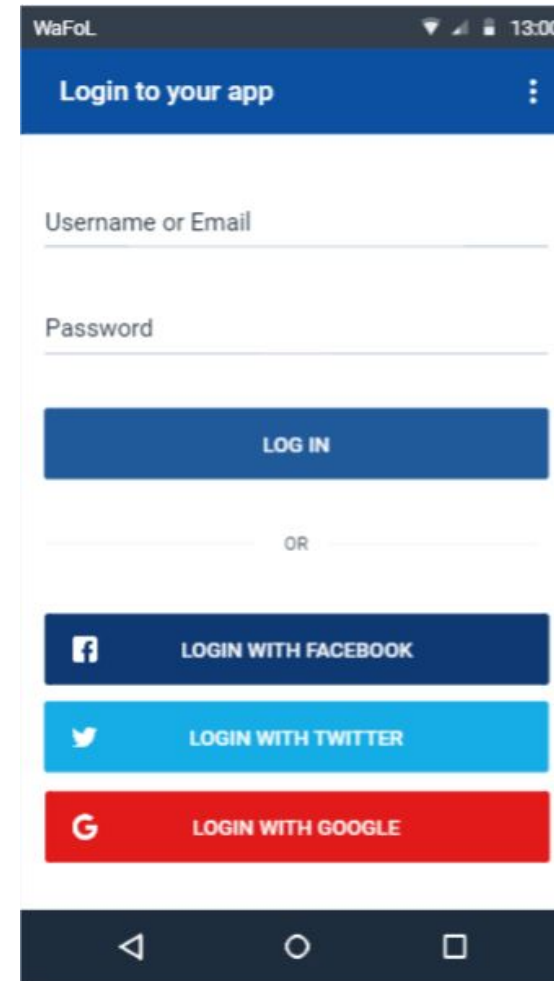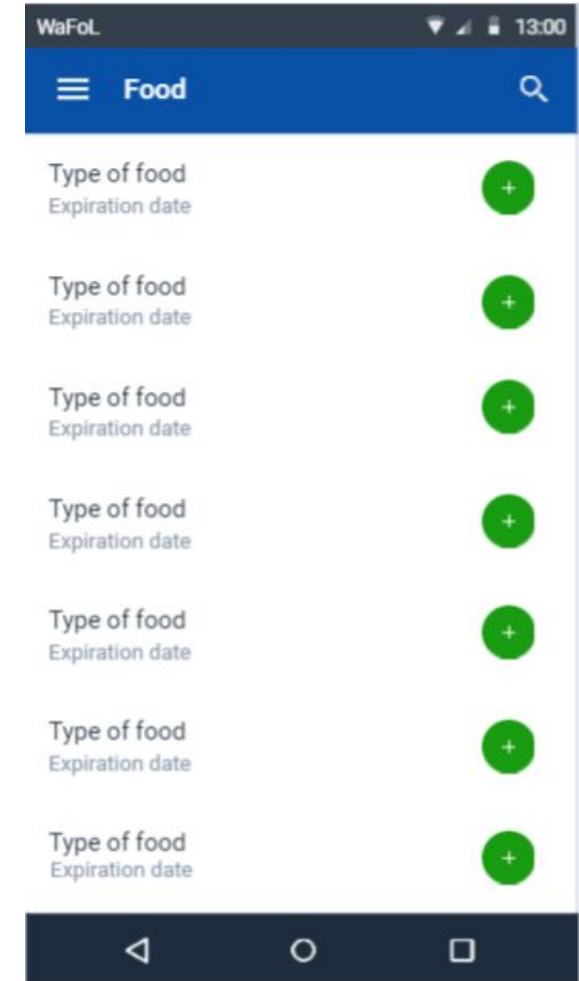
WaFoL 13:00

Login to your app

Username or Email

Password

LOG IN

OR

LOGIN WITH FACEBOOK

LOGIN WITH TWITTER

LOGIN WITH GOOGLE

WaFoL 13:00

Food

Type of food
Expiration date

Type of food
Expiration date

Type of food
Expiration date

Type of food
Expiration date

Type of food
Expiration date

Type of food
Expiration date

Type of food
Expiration date

Fig.3

Fig.4

BUSINESS PLAN

BMI – Business model canvas

Key partners

- City Hall of Bilbao
- Deputation de Bizkaia
- Deputation of the Basque Country
- Spanish Government
- European Union
- TripAdvisor
- JUST EAT
- HOTREC
- Banco de Alimentos
- FAO
- REFRESH Programme
- AECOC

Key activities

- Connecting food supplier and food demander.
- With a self-made APP. Which will tell us when to go to different places for food and also allows us to tell the receiving establishment when they will get their food.

Key resources

- Different type of vehicles for moving around the city efficiently.
- Great digital coordination between hostelry, our company and social centres. Coordination and time is primordial in this business

Value preposition

- We give a solution to the aliment waste of the city by reusing food from different establishment.
- This gives the opportunity to social centres for having more food to deliver.
- It makes a huge improvement on the social level of the city.
- The establishments ready to collaborate will be distinguished by a social-award.

Customer relationships

- We expect to collaborate with different parties all over the city.
- The relation with political parties and hostelry establishment must be powerful.

Channels

- Collaboration of local and national newspapers will have an important role on promoting.
- Working on digital media will be necessary for Start-Ups at these days.
- Our labour will be find in the social centres of the city.

Customer segments

- People with low basic resources, people in poverty condition
- Big and Small hostelry establishments
- We will try to involucrate people for contributing voluntary to different activities inside the labour.

Cost structure

- The intangible asset of developing an APP, will be worked by the founders of the company. It will incur in some costs like Mobile Application, Web Servitor or Certificates of Security for example.
- The tangible assets needed for the circulation of the city will produce a cost also. That could be paid with a public or private grant, or even financed.
- We will also need to plan everyday costs.

Revenue Streams

- The main revenue for the company will be public or private funding.
- Channels like Sponsoring could be seen as potential revenues.

VALUE PROPOSITION

"We give a solution to the aliment waste of the city by reusing food from different establishment"

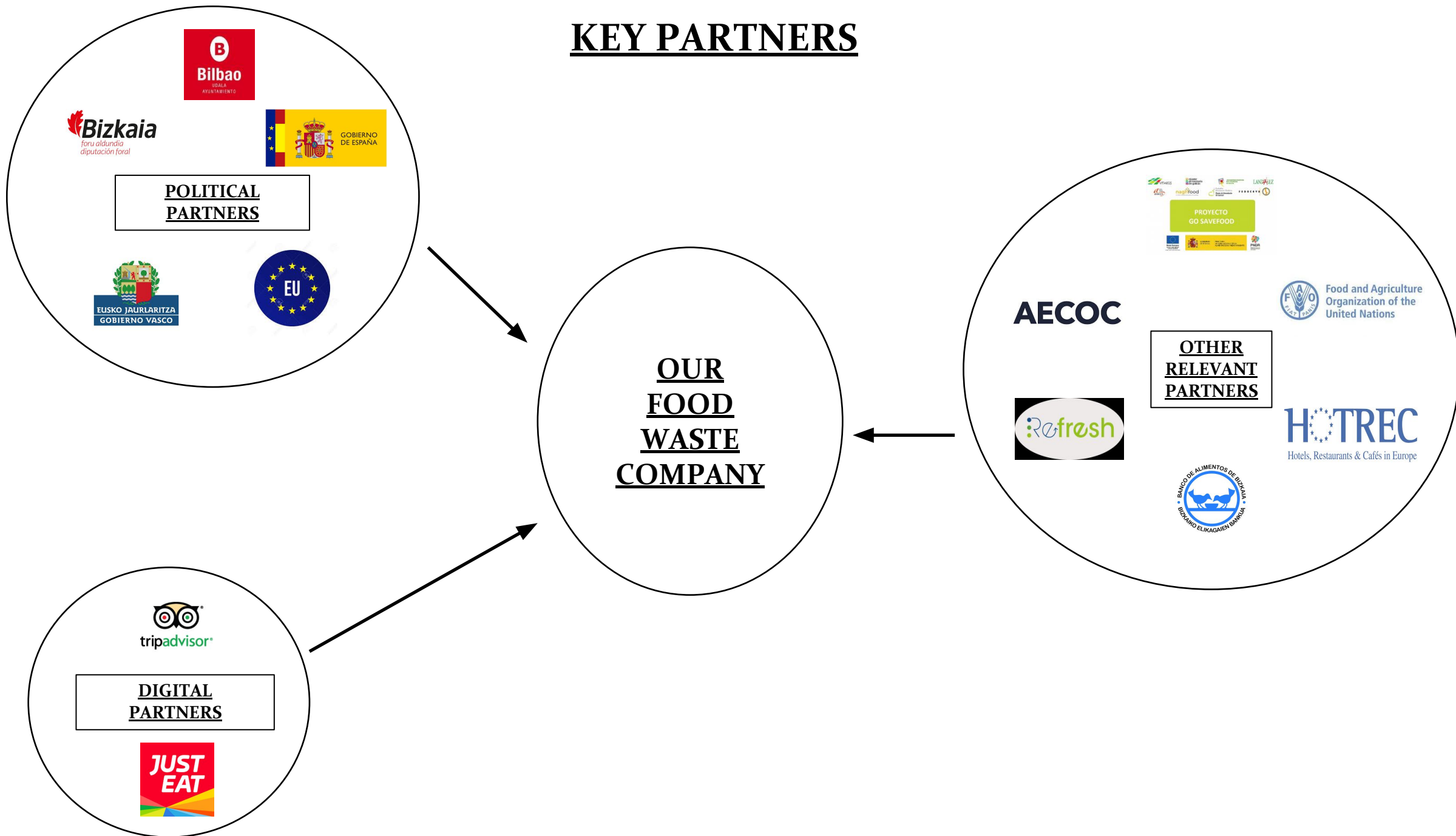*"It makes a huge improvement on the social level of the city"*

"This gives the opportunity to social centres for having more food to deliver"

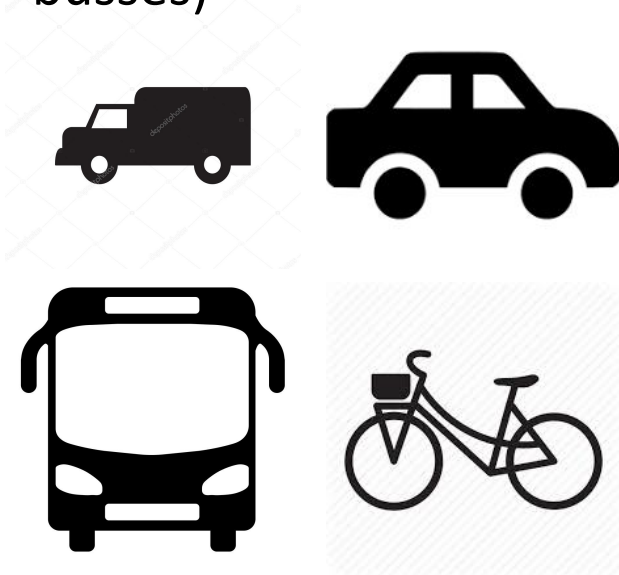*"The establishments ready to collaborate will be distinguished by a social-award"*

KEY PARTNERS

KEY RESOURCES

Different types of vehicles for moving around the city efficiently, and why not, for not waste other resources (e.g. busses)

A Mobile-Application that will allow us to create a great coordination between suppliers and demanders in an easy way - in real time and so without wasting of time

Since we know that coordination is fundamental for succeed the app will be open also for volunteers - they may help us giving their food or helping us with transportations
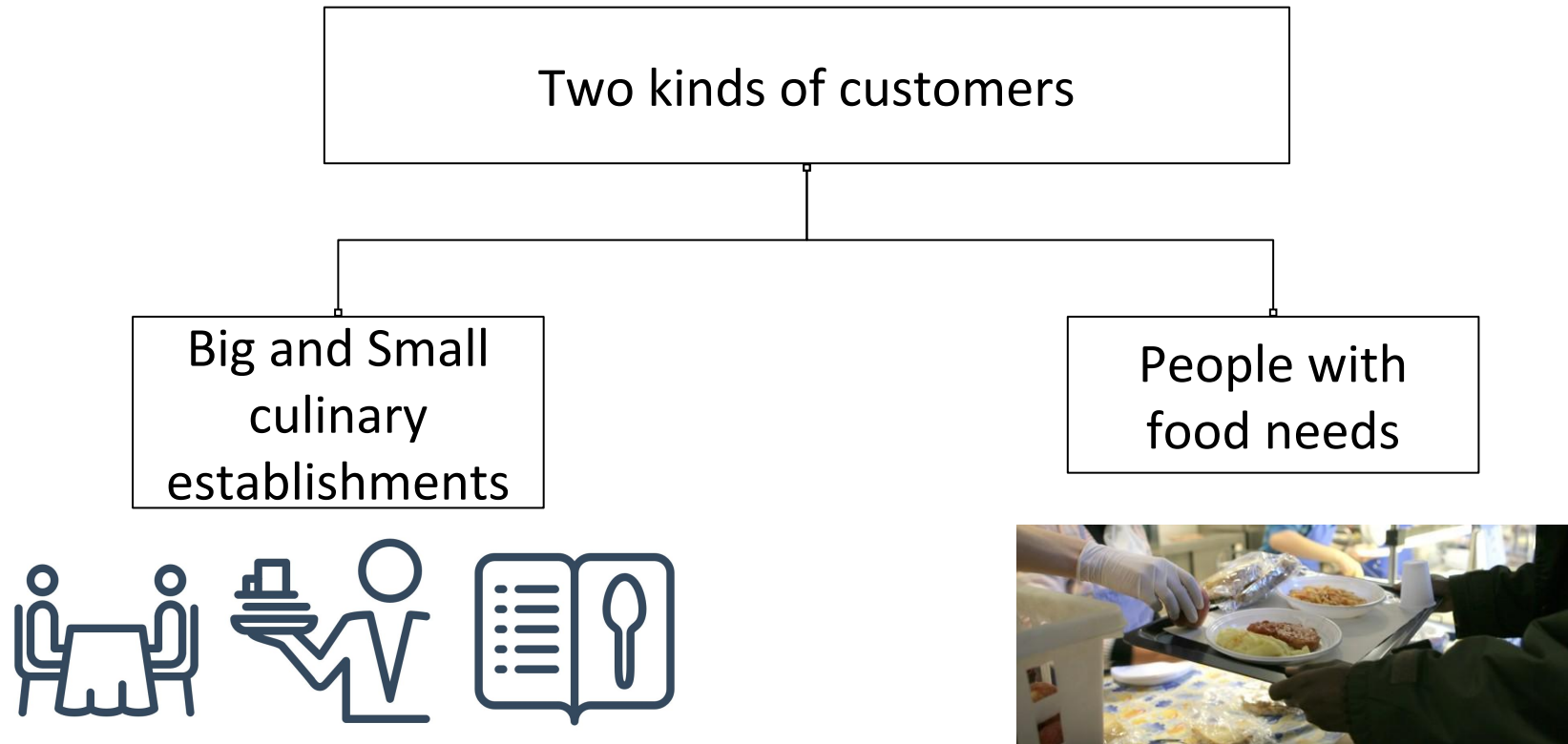
KEY ACTIVITIES

1) Connecting restaurants, events or every other kind of place in which we will have an excess of food and the solidary canteens

2) After that we have to transport the food from a place to another one, paying attention to not ruin the food integrity

3) Promote our activity and the activity of the places that will agree with the social help giving the awards (e.g. on tripadvisor) like that more organization will want to join and help

CUSTOMER SEGMENTS

Two kinds of customers

Big and Small culinary establishments

People with food needs

CUSTOMER RELATIONSHIPS

What we have:

We will connect suppliers and demanders with an app.

Social Networks pages will be our way to communicate with people about our work

We will be able to sponsorize our activities, we will be able to sponsorize the restaurants that will join our organization, we will be able to reply to the problems and questions that the first bot will not be able to reply.

How to improve:

The app will be completed with one or two bots (could be a telegram one). The first one will have the job to reply to simple questions, the second one will have the job to track the order for help to not waste the time.

For measured the degree of satisfaction we could use instagram questionnaires for suppliers and small interview during lunches and dinners in the solidary canteens - the interview could be posted on the main social networks.

CHANNELS
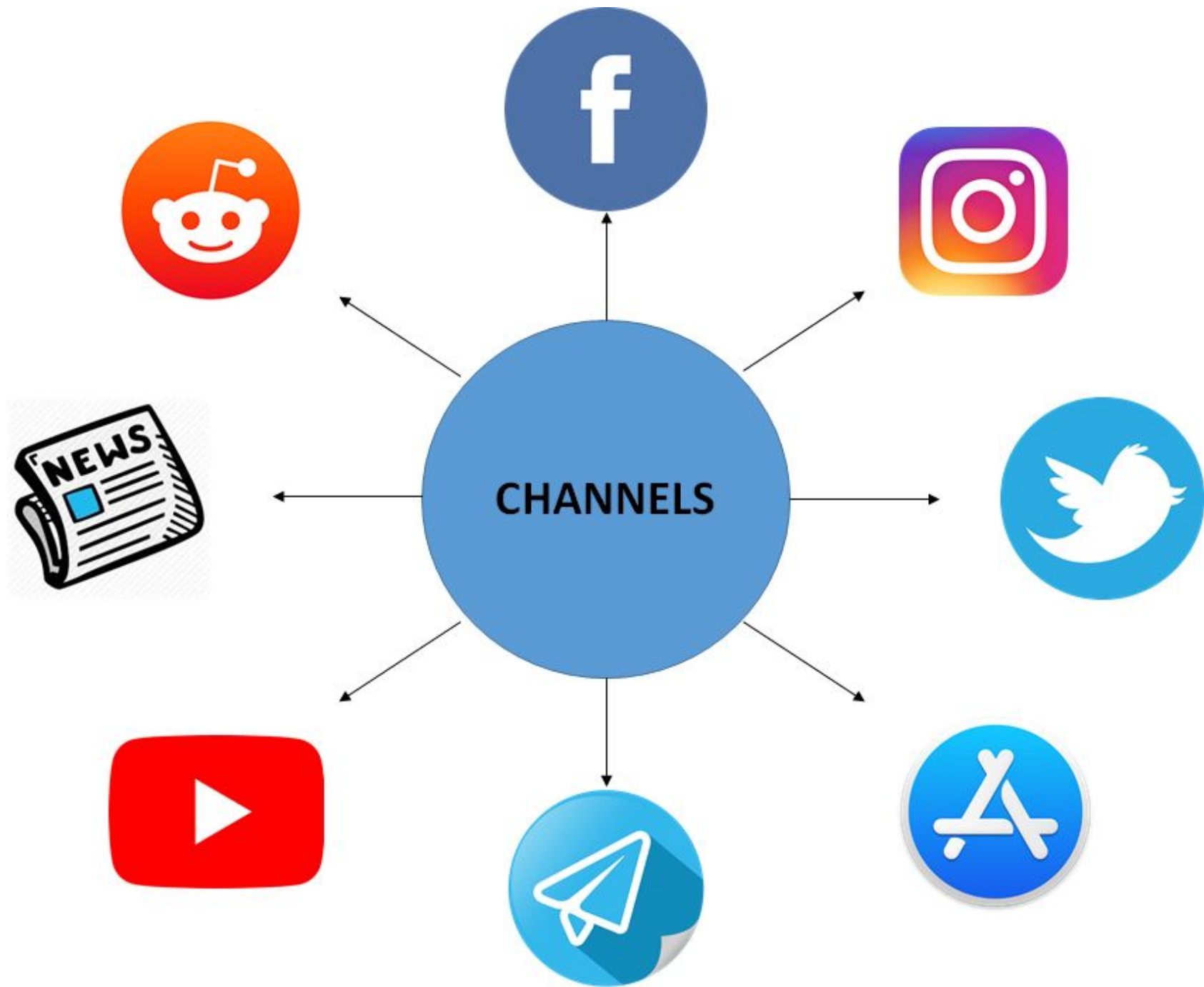
COST STRUCTURE

1) App development ([estimated cost](#))

2) Vehicles and fuel

3) Driving licenses and insurances

4) Workers (could be substituted by volunteers)

5) Maintenance (App and vehicles)

It is essential to ensure that the value of helping others becomes viral, so that "not helping" and wasting food will be seen as a "bad" thing.

In this way all the costs could be funded by public/private fundings or sponsorships.

REVENUE STREAMS

IMPORTANT FACTS ABOUT THE IMPLEMENTATION OF THE BUSINESS

LEGAL ISSUES

- This type of social work was carried in Bilbao a time ago. Some establishments used to donate the food that could not be used to different social canteens. Everything changed on the 2011, due to an Spanish National Law.

- The Law is "**Ley 17/2011, de 5 de julio, de seguridad alimentaria y nutrición**"

- This law changed all the food sector. Security and health came to a higher importance, but it also made the establishments to waste more food. The social canteens also were damaged because of this change.

- We talked with a lawyer and told us that its difficult to "skip" this national law, but he told us to talk with the city hall. Because the Basque Country has some specific competences comparing to Spain.

- We called the city hall and they told us that there is a real opportunity to introduce this project, but it would be mandatory to have a person responsible for food security. It would be a biological doctor brought by the city hall, and he or she would have to text the quality of the food in the social canteens.
  This would be mandatory if there exist a real implementation of the project in the city.

BOE
BOLETÍN OFICIAL DEL ESTADO

Too Good To Go

- The original project has its origin in Denmark in the 2016.
- It was founded with the intention of reducing food waste.
- It also has a eco-friendly character due to the reduction of CO2 emissions.
- They have more than 6 million users and more than 12.000 establishment cooperating with them.
- In the city of Bilbao there are just 10 establishment working with this App.

Too Good To Go

Waste Warriors

- The company was found on the 2009
- The idea was developed by Jodie Underhill. An English tourist that visited many places in India and decided to do something about waste and garbage.
- The project of this group its more focused on cleaning and reducing the existing waste, but the have collaborated with some other types of projects like food waste.
- The power of this social companies could help us to grow in different ways due to their experience. Such us planning and organization, the search of partners or relation with public groups like city hall for example.

Thank you for listening.

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