Developing DISCO BÔCÔ

WP4 – Testing Social Innovation

Feasibility Study Final Report

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Summary

Overview of project

The DISCO BÔCÔ concept was developed on the basis of the success of Disco Soupe, which is a collaborative community of individuals in France committed to combating food waste by raising public awareness through organising community events to make soup in a fun, musical atmosphere. The ingredients are surplus fruits and vegetables collected from supermarkets, markets or directly from the fields, therefore diverting food that would be wasted into nutritional products.

DISCO BÔCÔ has very similar principles to Disco Soupe, but in DISCO BÔCÔ the participants prepare jams, chutneys, pickles or vegetable purees instead of soup. DISCO BÔCÔ raises awareness of food waste through positive messages, fosters social cohesion and promotes culinary skills through a learning-by-doing approach. The name “DISCO BÔCÔ” was adopted because “bôcô” sounds like the French word “bocaux”, which means jar. At the end of the sessions, participants take home their jars of food to eat within the home, but there is also potential for food surplus entrepreneurs to sell the jars.

DISCO BÔCÔ activities started in December 2013 under the EU FUSIONS programme. It is one of six feasibility studies to test social innovation projects. 20 sessions of DISCO BÔCÔ were organised during 2014 across nine cities in France.

The objectives of the DISCO BÔCÔ feasibility study are:

- To trial the approach of the DISCO BÔCÔ sessions.
- To provide recommendations on replication of the project (i.e. advice and guidance on rolling out similar projects in other cities / countries).

Results and impacts

The main result from the 20 organised DISCO BÔCÔ sessions carried out in the feasibility study was that 825kg of surplus fruits and vegetables were intercepted and diverted from becoming food waste.

In total, 1093 DISCO BÔCÔ (jars) were produced by 700 participants, working for 578 volunteer hours.

In total 27,593 euros have been spent thanks to FUSIONS support. This includes the leading of the feasibility study, the project management, subcontracting and buying cooking materials.

The feasibility study has demonstrated that there is major potential for replicating the DISCO BÔCÔ concept through similar projects in other cities and countries. Disco Soupe has also been implemented in several other countries.

1 FUSIONS is “Food Use for Social Innovation by Optimising waste prevention Strategies”. The EU Fusions programme started in August 2012 and runs for 4 years.
Key guidance points to setting up other similar projects

Based on the lessons identified during the DISCO BÔCÔ feasibility study, the key factors for setting up a similar project are:

- Effective project management.
- Building a multi-disciplinary network of partners.
- Creating a community via social networks and other tools.
- Raising awareness on food waste through educational material and communication.
- Providing guidance materials, such as recipes and preservation methods.
- Ensuring food safety and hygiene issues are addressed.
- Ensuring financial sustainability.

Guidance for setting up similar projects is provided in Section 4 of this report, including detailed examples and lessons learned from the DISCO BÔCÔ project that put the above key factors into context.

DISCO BÔCÔ project has been closely connected to the implementation of other business-oriented projects aiming at selling jars made from discarded fruits and vegetables. These projects are part of the Food Surplus Entrepreneurs Network. It is important to note that Disco Bócô jars could not be sold because the hygiene conditions they are made in did not match those required for commercialization.

Links for further information

Disco Soupe: http://discosoupe.org/

Fusions: http://www.eu-fusions.org/

Selection of feasibility projects:

Other feasibility studies under fusions and other existing social innovation projects, including a video presentation on DISCO BÔCÔ: http://www.eu-fusions.org/social-innovations#
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1 Introduction

This section covers the overall objectives of DISCO BÔCÔ feasibility study and of this present report that is a deliverable from the FUSIONS Work Package (WP) 4 that aims to test the impact of social innovation on reducing food waste.

1.1 Aims of the feasibility study

The aims of the feasibility are:
1. To trial social innovation projects
2. To provide recommendations on replication

Through this feasibility study, we aim to test and facilitate the improvement, analysis and expansion of a new form of festive events based on food preservation techniques (collaborative jar-making), DISCO BÔCÔ sessions. The goal of these events is to prevent food waste directly through intercepting surplus fruit and vegetables that is evident in the supply chain now, but the events also serve a wider purpose in that they provide an education to individuals. This is done through raising awareness on issues of food waste. Primarily the edibility of this food and the fact that although this food may be surplus and near its end of life, you can preserve the food thus it’s life span is increased. It also strengthens and creates social connections and interactions between the participants. DISCO BÔCÔ events were trialed using different types of venues, numbers of participants from different backgrounds in different places in France and was analysed and improved during this feasibility study.

We also aim to provide guidance on how the project can be replicated elsewhere. A person or organisation should be able to set up a similar initiative to Disco Boco using the report itself. This is why the final report is delivered with a toolkit with simple and precise recommendations for replication.

1.2 Context of the feasibility study

**Summary of the Fusions Project**

The overall objective of the FUSIONS project (Food Use for Social Innovation by Optimising waste prevention Strategies) is to achieve a Resource Efficient Europe by significantly reducing food waste. This will be accomplished by the harmonisation of food waste monitoring, showing the feasibility of socially innovative measures for optimised food use in the food supply chain and by giving policy recommendations for the development of an EU27 Common Food Waste Policy.

This report is a deliverable from the FUSIONS Work Package (WP) 4 which sets out to test the impact of social innovation on reducing food waste through a suite of feasibility
studies (FS) conducted within the duration of FUSIONS project. The feasibility studies are a key part of FUSIONS, delivering actual reductions in food waste alongside social benefits.

This DISCO BÔCÔ feasibility study was developed as an idea and submitted in November 2013 for consideration by a panel comprising WP4 core partners under the EU Fusions project. It was one of 39 ideas for social innovation projects, obtained via a stakeholder survey, assessed by the panel against a set of agreed selection criteria. Section 2.3 provides more details related to meeting the criteria. After the proposal was selected in the beginning of 2014 and the final budget confirmed, the work on the FS started in February 2014. The DISCO BÔCÔ feasibility study is one of seven projects implemented in 2014-2015.

The aims of this report are:

- To provide a description, analysis and outcome of the 20 sessions of DISCO BÔCÔ organised in 2014 in France carried out in this feasibility study under the Fusions project.
- To provide recommendations and guidance for the replication of similar projects in other countries. This includes a link to an open-source toolkit, which will support any individual or group in the organisation of a DISCO BÔCÔ session (see section 5.1).

The following links have more information related to the planning and implementation of the pilot project:

- [https://www.youtube.com/watch?v=H93pttH3554](https://www.youtube.com/watch?v=H93pttH3554)

The tool-kit can be found at:

- [http://discosoupe.org/disco-boco/](http://discosoupe.org/disco-boco/)
- Appendix 3

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2 Background and approach

This section covers the background concept and the key principles of DISCO BÔCÔ, details on meeting the criteria for social innovation, and a description of the approach for the feasibility study project.

2.1 Background on the DISCO BÔCÔ concept

DISCO BÔCÔ (“bôcô” sounds like the French word “bocaux” which means jars) is a concept of collaborative and festive events that bring people together to pick, cook and preserve into jars discarded fruits and vegetables.

During DISCO BÔCÔ sessions, participants prepare, to music, delicious jams, chutneys, pickles or vegetable purees from unwanted and unsold fruits and vegetables that are collected in supermarkets, markets or directly from the fields. At the end of the sessions, participants bring back home their DISCO BÔCÔ to enjoy.

DISCO BÔCÔ raises people’s awareness of food waste through non-moralising and positive messages, fosters social cohesion and promotes sharing of culinary skills through a learning-by-doing approach.

DISCO BÔCÔ was created in December 2013 in response to the FUSIONS call for projects. Its creators came from within the Disco Soupe community, a wide collaborative community of individuals committed to combating food waste by raising public awareness through festive soup-making. (Check out the FUSIONS short film on DISCO BÔCÔ and the Facebook fanpage!)

**DISCO SOUPE**

"Inspired by Slow Food Youth Movement’s "Schnippel Disko" in Germany, Disco Soupe is a non-profit based in France that addresses issues of food waste through festive community events. We set up collective gatherings for people to peel, cut and prepare discarded fruits and vegetables... to music! We turn the produce into soups and salads, then redistribute them for free. Since the beginning of 2012, we have organized Disco Soupe around a hundred of events independently and in cooperation with other organizations, in France and around the world!" Disco Bôcô has been created inside the Disco Soupe community: preservation is a very good way to fight against food waste and, this is why, the idea of the Disco Bôcô format came about naturally.

2.2 The main principles of DISCO BÔCÔ

The main underlying principles of the DISCO BÔCÔ project are:

1. Connect citizens and existing communities to local sources of food waste and raise people’s awareness of the need to prevent food waste.

   Identifying food waste sources within the city enables the creation of local virtuous waste upgrade circles “from bin to jar” in a more efficient way. Furthermore, a local approach helps to raise citizens’ awareness who will feel more concerned about the issue as they can connect better with a local issue.

2. Create conviviality and promote food craft skills to foster social cohesion (community links and inter-generational exchanges)

   The alliance of two deeply social activities - cooking and music - gathers people from every generation and social background around the pleasure of cooking and partying together and sustains social links in an area or community. Cooking is a great vehicle for sharing knowledge, skills and for relationship building.

3. Give to people the means to actively contribute to their individual food security and increase their well-being by gaining access to healthy culinary techniques and affordable, adequate, nutritious and safe “real” food.

   By learning how to craft food themselves, people regain control over their food supply and the power to choose healthy, safe food that the delocalised, industrialised food system has made inaccessible to many, especially those with the fewest resources.

How do we organise DISCO BÔCÔ?

4 KEY RESPONSABILITIES:

**THE COOK**
Defining the recipes. Cooking, Picking.

**THE JAR KEEPER**
Sterilisation of jars, Pouring.

**THE ARTIST**
DIY workshop, decoration of labels and jars

**THE PRECOCIONOUS**
Hygiene standards

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1. COLLECT LOCALLY DISCARDED FRUITS AND VEGETABLES
2. COLLECT LOCALLY EMPTY GLASS JARS
3. COLLECT SECOND HAND CLOTH AND PRINT THE LABELS
4. WASH AND STERILISE THE JARS
   Jars are hand washed and then sterilised inside a sterilizer.
5. WASH THE COLLECTED FRUITS AND VEGETABLES
6. DECIDE ALL TOGETHER THE RECIPES YOU WANT TO COOK
   - The objective is to value the participant’s culinary know how, talents and creativity.
7. PICK IN A FESTIVE ATMOSPHERE AND WITH MUSIC
   - The picking is organised according to the recipes and meets good hygiene standards ensuring, for example a forward progression of products in successive production operations.
8. COOK AND SEASON
   - Picked fruits and vegetables are thrown into big cauldrons and seasoned according to the chosen recipe.
9. EMBELLISH YOUR JAR
   - During the cooking, a DIY creativity workshop is held for the participant to decorate the labels that will give some style to the pots.
10. POUR INTO POTS
    - Preparation are poured into pots.
    - Labels are stuck on the pots.
11. EVERY PARTICIPANT GOES BACK HOME WITH IT’S DISCO BÔCÔ’s
2.3 Meeting the social innovation criteria

The features of social innovation have been defined in the first task of FUSIONS Work Package 4\(^5\), and the analysis below shows that DISCO BÔCÔ sessions fully abide by the definition of social innovation, through meeting the following criteria:

- DISCO BÔCÔ has socially recognised goals (and also reduces food waste).
- DISCO BÔCÔ is people-focused, both in terms of delivery & beneficiaries.
- DISCO BÔCÔ is grounded in deep reflection on the problem & direct action from those involved in it.
- DISCO BÔCÔ is delivered through a multi-stakeholder approach.
- DISCO BÔCÔ is a combination of activities delivered into a new setting.

2.3.1 DISCO BÔCÔ has socially recognised goals (and also reduces food waste)

The DISCO BÔCÔ project has revealed that a food waste prevention project can **simultaneously have social benefits**: it also reduces social isolation and improves access to nutritious food for people in need.

**FOOD WASTE**: DISCO BÔCÔ tackles food waste by delivering information on this major issue with non-moralising and festive messages. The “bôcôs” (jars) are filled with preparations cooked exclusively with discarded fruits and vegetables. At the end of the session, participants can see how many jars of jams or chutneys were made from these unsold products and therefore realise that a lot of food that is being thrown away is always still delicious and edible. We didn’t ask participants to pay any money for “bôcôs” (for economic model, see part 4.7) : what we really wanted to highlight is that the quantity of food waste is so large that every participant can go back home with their bôcô to enjoy; and that there are many ways of transforming those discarded fruits and vegetables into new products.

**Tackling food waste is a way to tackle other social issues (and vice-versa: tackling social issues is a way to tackle food waste):**

- **SOCIAL ISOLATION**: DISCO BÔCÔ creates conviviality and promotes food craft skills to foster **SOCIAL COHESION** (community links and inter-generational/inter-cultural exchanges):
  - The urban lifestyle makes it sometimes difficult to meet new people in daily life and enjoy simple friendly moments. DISCO BÔCÔ aims to creating joyful moments for people **to meet face-to-face**, to share and experiment generosity and conviviality through the **co-creation** of a meal.

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The alliance of two deeply social activities - cooking and music - gathers people from **every generation and social background** around the pleasure of cooking and partying together and sustains social links in an area or community.

Cooking together can also be a means to **learn from one another**, to share cooking tips and recipes as well as a way to **enhance people’s know-how**. We’ve noticed that, in the social residences we work in, cooking is a way for women in need to feel valued, visible and good about themselves.

- **NUTRITIONAL DEFICIENCIES**: DISCO BÔCÔ gives people the means to actively contribute to their own **food security** and increase their well-being by gaining access to affordable, adequate, nutritious and safe “real food”:
  - When people learn how to do **food craft** they are able to **regain control over their food supply** and the power to chose healthy, safe food that the delocalized, industrialized food system has made inaccessible to many, especially those with the fewest resources.
  - DISCO BÔCÔ empowers people with simple, low-cost and healthy food preservation know-how they can reproduce back home and reintroduces the pleasure and the simplicity of cooking as well as the joy of preparing and **eating real food**.
  - The high cost of fruits and vegetables in urban environments makes it difficult for some citizens to eat healthily and, thus, may lead to food injustice. DISCO BÔCÔ promotes **food justice**.
  - DISCO BÔCÔ sessions are great moments for sharing tips on healthy nutrition and demonstrate how easy it is to cook balanced meals! DISCO BÔCÔ aims to **raise people’s awareness of healthy food**.

- **ECONOMIC INSECURITY**: DISCO BÔCÔ promotes **food justice** by giving access to low cost, saved-from-the-bin fruits and vegetables and healthy preservation skills to create products that can be consumed back home.

### 2.3.2 DISCO BÔCÔ is people-focused, both in terms of delivery & beneficiaries

DISCO BÔCÔ is **addressed to** any kind of people and aims to be widely adopted by different types of communities because we believe that creating social cohesion and promoting healthy food are primary objectives in any kind of environment.

Nonetheless, we’ve noticed that **people in need** scarcely come spontaneously to events we organise. Thus, in order to be able to reach out more easily to these individuals, we’ve decided to go and meet them in the places they live.

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Note: Food craft (“transformation of raw ingredients into foods with techniques that change and build flavour, make foods last longer and increase the impact of land and place on flavour”) in an urban setting is a source of individual, social and economic health that supports healthy bodies, healthy communities and healthy businesses (from: Eat Real Manifesto).
That is why DISCO BÔCÔ organises events inside social residences in order to target underprivileged residents. The pilot project has, therefore, been set up inside “Le Palais de la Femme”, a Salvation Army social residence hosting 350 women in need. Tackling food waste can be a way to tackle the food insecurity, social isolation and economic precariousness these people suffer the most from.

2.3.3 DISCO BÔCÔ is grounded in deep reflection on the problem & direct action from those involved in it

Because DISCO BÔCÔ contributes to addressing immediate and urgent social issues, it is action focused and actively involves its participants by a “Do It Yourself & Together” approach.

For example, in social residences, people in need participate actively in the organisation of the sessions: they go and collect discarded fruits and vegetables, decide on the recipes that are going to be cooked, plan the activities needed for cooking the jars, the timing, etc.

- DISCO BÔCÔ aims at empowering people through action, giving participants the possibility to take action very easily, to be responsible for different aspects of the organisation and to learn by doing. The sessions are, therefore, designed to be fun, very easy to deliver and to take part in.
- We also trained individuals to organise their own DISCO BÔCÔ sessions and to take more responsibility as ambassadors for food waste prevention or organisers of collective cooking sessions. We stimulated group action by promoting the fact that DISCO BÔCÔ sessions must be organised by a group of motivated individuals with complementary skills.

- DISCO BÔCÔ also believes that action is the best way to raise people awareness of the need to reduce food waste by giving them a sensorial interaction with food waste: picking, cooking and seasoning vegetables that have been thrown away but which are, nonetheless, still perfectly edible is a very striking activity. It is considerably more striking than an exclusively intellectual and informative approach.

DISCO BÔCÔ is grounded in deep reflection on the social issues it wants to tackle. When we work in social residences, we always prepare our interventions by meeting social workers and residents in order to understand the context of our action and tailoring our goals and energy for each event appropriately. Therefore, the DISCO BÔCÔ format is always dynamic and evolving according to the context:

- DISCO BÔCÔ is adaptive and reflexive. For example, in a social residence of immigrant workers where there were tensions between residents, the focus of the DISCO BÔCÔ we organised was put on creating social cohesion and conviviality even though in another social residence of woman in need, we agreed with the social workers that the main focus should be on informing people about food waste and how they could avoid it at home.
- DISCO BÔCÔ is also based on learning. All the events organised during the feasibility study have been well documented in order to build best practices as well as an open-source toolkit. Even after the end of the feasibility study, this approach will be maintained: we will invite people organising DISCO BÔCÔ sessions to nourish our DISCO BÔCÔ methodology and exchange best practices with other people.
- To be sure to understand profoundly the context in which we organise collaborative cooking sessions, we built partnerships with different stakeholders (see 4.2) that have particular points of view. Putting together these specific points of view helped us to
sharpen our vision of the problems we tackle. This is why DISCO BÔCÔ fosters co-creation.

2.3.4 DISCO BÔCÔ is delivered through a multi-stakeholder approach

Answering social issues is complex and challenging: to face them, it is essential to cut across organisational, sectoral or disciplinary boundaries and to work with many different actors who have specific points of view and skills in order to nourish the project.

- The complexity of the social issues confronted by DISCO BÔCÔ requires understanding them through various facets. That is why DISCO BÔCÔ works with a large spectrum of actors, such as big retailers, social workers, political institutions, people in need, food activist associations, household equipment firms, community supported agriculture networks, and creates new relationships (see 4.2).
- Putting together these different ways to tackle the same issue generates innovative and co-created approaches. Complexity requires innovation and a multi-stakeholder approach generates social innovation through new relationships and collaboration.
- This inclusive and co-created approach engenders impacts at different levels: global and individual. Indeed, this multi-stakeholder approach allows us to work at a micro level, on the field, with people in need but also with political institutions that are interested in spreading the format at a larger scale through toolkits. Both levels are complementary.
- By bringing together people who were not previously working together and giving life to new, creative relationships, DISCO BÔCÔ contributes to the dissemination and embedding of its format. The more pertinent actors included in the approach, the more embedded the format.
- This multi-stakeholder approach also fuels a cumulative dynamic that opens up the possibility of further innovations.
2.3.5 DISCO BÔCÔ is a combination of activities delivered into a new setting

“Social innovation aims, above all, to redefine social structures, in which those who make use of an asset or a service no longer play a passive role but actively participate in the process by which it is designed and delivered.”7

Examples of food surplus redistribution for people in need are very widespread in France: DISCO BÔCÔ aims at going beyond the original concept of unsold fruits and vegetables distribution to put people in action, tackle the link between food and conviviality as well as to promote taste education.

DISCO BÔCÔ is not only about redistributing food to people in need, which gives recipients a largely passive role. It is about people participating actively in the preparation of their meal, learning cooking skills, expressing themselves through their culinary know-how and creating social links with other participants.

This is how DISCO BÔCÔ blends existing elements with innovations. DISCO BÔCÔ’s approach is complementary to these classic redistributions of food and does not aim at replacing them.

2.4 Approach of the feasibility study

After a call for ideas, FUSIONS WP4 selected DISCO BÔCÔ, along with 6 other projects in order to test the impact social innovation can have on food waste. The projects implemented their feasibility study in 2014 and 2015 supported by FUSIONS and WRAP. More information on the FUSIONS WP4 feasibility studies here: www.eu-fusions.org/social-innovations

Figure 1 - A logic map was created collectively with the FUSIONS partners to highlight the Feasibility Study’s rationale and strategic objectives.

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2.4.1 Prototyping

The DISCO BÔCÔ feasibility study has been based on learning by doing and an action focused approach. The actions were well documented in order to put emphasis on the best practices and to reflect deeply on the problems we tackled.

The feasibility study aimed at prototyping as many different DISCO BÔCÔ formats as possible in order to build best practices. The objective was to capitalise on the experiences to be able to develop a DISCO BÔCÔ open-source methodology aiming at creating a viral format and replicate widely the events.

That is why we organised various types of events (see Appendix 1):

- **In different types of locations:** eg. Immigrant jobless households, charity organisations, neighbourhoods’ parties, etc.
- **With different types of citizens:** eg. Homeless, children, wounded women, etc.
- **With different objectives:** eg. Focus on social cohesion, on building relationships between farmers and urban consumers, on valuing some participant’s recipes, etc.
- **With different sources of food waste:** eg. Local farmers’ product, 100% organic, etc.
To prototype these events, the approach included the following aspects:

**A. Build a Network of Local Sources of Food Waste**

Before the beginning of DISCO BÔCÔ’s feasibility study, Disco Soupe had already set up a network of groceries, supermarkets and wholesale markets (e.g. Rungis Market near Paris) to collect discarded fruits and vegetables. Indeed, in November 2013, a national partnership was signed with Monoprix in order to gain access to unsold products in every supermarket of the chain (145) all over France.

DISCO BÔCÔ benefited from this wide network but also created, in Paris, its own network of stores where unsold fruits and vegetables can be collected, with a focus on organic, local or high quality unsold fruits and vegetables (see 3.2).

**B. Gather Cooking Materials and Ingredients**

The feasibility study aimed at gathering cooking materials (thanks to FUSIONS budget) such as cans, sterilisers, cooking pots, electric hotplates, pressure canners, water bath canners, cutting boards, knives, funnels, peelers, wooden spoons, spatulas, salad bowls, trays. These materials are essential to organise festive and collective cooking sessions.

We also gathered dressings and spices to embellish our preparations, as well as cereals (rice, barley, buckwheat...) and legumes (beans, peas, lentils...) to cook balanced meals.

**C. Preserving Know-How and Techniques**

Throughout the world, many preservation techniques exist (lacto-fermented, preserved in vinegar, sugar free jams, etc.). The feasibility study aimed at exploring them to be able to acquire a good know-how and use the most adequate methods for the DISCO BÔCÔ sessions.

The feasibility study allowed us to develop skills in the preservation methods as well as to understand what sources of unsold products are the most adequate for this kind of practice, what techniques are best suited for festive and collaborative cooking sessions, etc.

To ensure the proper hygiene conditions of DISCO BÔCÔ sessions, the feasibility study focused on the respect of the hygiene standards, exploring the suitability of the various formats.

**D. Creating Educational Materials**

To meet the educational goals, the feasibility study aimed at producing educational material on food waste, on preservation techniques and on healthy food in order to raise awareness (see parts 4.5 and 4.6).

2.4.2 Measuring the Impact

One objective of the feasibility study was to measure the impact on a qualitative and
**quantitative level.** The impact was measured on food waste as well as on the other issues DISCO BÔCÔ was seeking to tackle, see 3.3.

### 2.4.3 Building an Open-source Methodology and Preparing the Dissemination

The feasibility study has been well documented in order to underline the best practice it has generated through experience. One of the main objectives of the feasibility study was to capitalise on the know-how gained through testing the activities and develop a **DISCO BÔCÔ open-source methodology** in order to create a viral format of events to be replicated widely (see part 4.1).

During the feasibility study, what was at stake was to understand how this one-year study could lead to a longer term project viable across France and in Europe and "how scalable or replicable social innovation is given it is grounded in its local context & the way participants understand their environment."\(^8\)

This question is consistent with the FUSIONS overall objectives: to optimise food use in the EU and to reduce food waste.

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3 Overview of DISCO BÔCÔ events

This section provides an overview of the DISCO BÔCÔ events and results. More details are provided in Appendix 1.

3.1 Main results

The main results from the 20 organised DISCO BÔCÔ sessions carried out during the feasibility study (over 1 year) were:

- 825kg transformed unsold fruits and vegetables
- 20 organised DISCO BÔCÔ sessions
- 1093 DISCO BÔCÔ produced
- 578 volunteer hours
- 700 participants
- 9 cities

3.1.1 Different Types of Citizens

The DISCO BÔCÔ format aims at tackling social issues such as social isolation and food vulnerability. These issues are predominant among underprivileged people: this is why the majority of DISCO BÔCÔ sessions have been organised with this group. Nonetheless, social cohesion and taste education are essential issues in any kind of environment. This is why DISCO BÔCÔ format doesn’t focus only on one kind of group and can be organised for anyone with some modification as needed to its dynamic and objectives.

Figure 2 - Number of DISCO BÔCÔ sessions organised per type of citizens (Total : 20 sessions)
3.1.2 Different Sources of Food Waste

One major priority of DISCO BÔCÔ is **taste education**. This is why it was essential to find **healthy sources of food waste** to be coherent with our messages.

- We collected the **majority of fruits and vegetables from organic** markets and supermarkets as well as from local farmers to be able to raise awareness on seasonality, pesticides, balanced meals, etc. These fruits and vegetables are always collected for free, from donations.
- During the feasibility study we collected **407 kg of organic unsold fruits and vegetables** (among the total 825kg collected).

**Figure 3 - Number of DISCO BÔCÔ sessions organised per source of food waste (Total: 20 sessions)**

3.1.3 Wider Objectives

- Even though it is hard to determine the main objective of every DISCO BÔCÔ session because most of the time DISCO BÔCÔ tackles many issues at the same time, it is interesting to show the main focus of the sessions we organised.
- In social residences, **social cohesion** is, in general, the primary objective. Nonetheless, this primary objective allows us to disseminate educational messages on food waste and on healthy nutrition and meets therefore our other objectives.
- In community supported agriculture networks, DISCO BÔCÔ aims to create convivial moments for consumers and farmers to meet.

**Figure 4 - Number of DISCO BÔCÔ sessions organised per objective (Total : 20 sessions)**
3.1.4 Replication in Other Cities

- Replication has already started in 8 cities other than Paris, where DISCO BÔCÔ was created, have organised DISCO BÔCÔ sessions (i.e. Marseille, Lyon, Tours, Reims, Montreuil, Toussus-le-Noble, Le Mans, Saint-Maur).
- In Marseille, Lyon, Tours and Reims the replication relied on the Disco Soupe community.
- In Tours, Le Mans, Saint-Maur, the DISCO BÔCÔ sessions were organised within a community supported agriculture network called The Food Assembly (La Ruche Qui Dit Oui!) that has a wide community all over France.

*Figure 5 - Number of DISCO BÔCÔ sessions organised per city (Total : 20 sessions)*
3.2 Overview of results

Since December 2013, 20 DISCO BÔCÔ sessions have been organised:

- 15th of December 2013 - Le Palais de la Femme social residence (Paris)
- 16th of February 2014 - Armée du Salut social residence (Paris)
- 2nd of March 2014 - Disco Campus in La Petite Rockette (Paris)
- 15th of March 2014 - Le Palais de la Femme Social residence (Paris)
- 18th of March 2014 - AURORE Social residence (Montreuil)
- 2nd of April 2014 - Nature et Découvertes (Toussus-le-Noble)
- 16th of April 2014 - Le Palais de la femme social residence (Paris)
- 7th of May 2014 - OuiShare Fest (Paris)
- 19th of June 2014 - Notre Dame des Sans Abris social residence (Lyon)
- 5th of July 2014 - Le Comptoir Général / La Ruche Qui Dit Oui! (Paris)
- 21st of September 2014 - La Grande Migration/La Ruche Qui Dit Oui ! (Le Mans)
- 30th of September 2014 – Disco Bôcô Loco (Paris)
- 18th of October - La Cantine du Midi (Marseille)
- 23rd of October - Notre Dame des Sans Abris social residence (Lyon)
- 28th of October - La Cantine (Reims)
- 1st of November - La Petite Rockette (Paris)
- 16th of November - La Ruche Qui Dit Oui ! (Tours)
- 30th of November - Equitable Café (Marseille)
- 10th of December - La Ruche Qui Dit Oui ! (Saint Maur)
- 6th of December - Dar La Mifa (Marseille)

During the Disco Bôcô sessions, we carefully collected various types of data that can be found in Appendix 1. For each event, you should find the details on:

- Type of public
- Source of food waste
- Main objective
- Location
3.3 Feedback and evaluation

3.3.1 The survey

A survey (through Survey Monkey software) was sent to the participants of 4 of the DISCO BÔCÔ sessions:
- 5th of July – Le Comptoir Général / La Ruche Qui Dit Oui! (Paris)
- 21st of September – La Grande Migration/ La Ruche Qui Dit Oui! (Le Mans)
- 30rd of September – Disco Bôcô Lôcô (Paris)
- 1st of November - La Petite Rockette (Paris)

This survey was created jointly by Sophie Eastel (WRAP), Graham Moates (IFR) and Marine Lafon (DISCO BÔCÔ).

Below is the structure of the survey:

**DISCO BÔCÔ Evaluation**

_Thank you for taking the time to answer our survey!_

DISCO BÔCÔ is fuelled by passionate individuals like you! To help us build on our success we would like your feedback. Perhaps you’ve just attended a DISCO BÔCÔ session, or maybe you’ve led one - your experience is important to us. Thank you.

1. How much did you enjoy the session? (1 - didn't enjoy, 5 - really enjoyed)
   Your comments (optional)

2. Has participating in DISCO BÔCÔ made you more aware of the need to reduce food waste? (1 - no more aware than before participating, 5 - much more aware)
   Your comments (optional)

3. Will you use the skills you’ve learned? (1 - won't use them, 5 - will definitely use them)
   Your comments (optional)

4. Will you teach these skills to others in your network? (1 - no, 5 - yes definitely)
   Your comments (optional)

5. How much of your DISCO BÔCÔ did you/your household eat? (1 - none of it, 5 - all of it)
   Your comments (optional)

6. Please tell us a bit about yourself
   What was the date of the DISCO BÔCÔ you attended?
   How many DISCO BÔCÔ events have you attended (including this one)?
40 participants answered the survey:
- **11 answers** for the 5th of July session (Le Comptoir Général in Paris)
- **2 answers** for the 21st of September session (La Grande Migration in Le Mans)
- **6 answers** for the 30rd of September session (DISCO BÔCÔ Lôcô in Paris)
- **21 answers** for the 1st of November session (La Petite Rockette in Paris)

1. **How much did you enjoy the session? (1 - didn't enjoy, 5 - really enjoyed)** - (40 answers - 4 DISCO BÔCÔ events)

- People are often very thrilled with the sessions and really appreciate the festive and joyful atmosphere.
- In the survey, people commented on the **good vibe**, the nice organisation, on how educational and fun the session was, and how meeting so many people while cooking is great and positive.

2. **Has participating in DISCO BÔCÔ made you more aware of the need to reduce food waste? (1 - no more aware than before participating, 5 - much more aware)** (40 answers - 4 DISCO BÔCÔ events)

- Many people commented that they were **already really aware of the issue of food waste**, sometimes because they participated before in other Disco Soupe/DISCO BÔCÔ sessions.
- Various people commented on the fact that the DISCO BÔCÔ sessions made them aware of the **quantity of waste**, saying they were already aware about the problem but didn’t think it was that much!

3. **Will you use the skills you’ve learned? (1 - won't use them, 5 - will definitely use them)** (40 answers - 4 DISCO BÔCÔ events)

- The majority of the people commented on the fact that they learnt **great recipes** and discovered **new preservation techniques** (pickles, kimchi, etc.) and that they are willing to reproduce them back home.
- Some participants said they didn’t cook a lot and the sessions gave them the motivation to cook back home. 
- Other people noted they really benefitted from the advice of an expert jam producer who attended one of the sessions (10).

4. Will you teach these skills to others in your network? (1 - no, 5 - yes definitely) (40 answers - 4 DISCO BÔCÔ events)

- Many participants commented that after the session they talked a lot about DISCO BÔCÔ in their network as well as about the recipes they learnt.
- Some participants answered that they didn’t feel confident enough to teach the skills to others and that they needed to train, to practice preservation methods and to participate to other DISCO BÔCÔ sessions before being able to transmit their skills.
- Some participants commented on the fact that the lack of time to teach the skills they learnt to their network.
- Others, working in sustainable development, said the organisation of the session inspired them for their work.

5. How much of your DISCO BÔCÔ did you/your household eat? (1 - none of it, 5 - all of it) (40 answers - 4 DISCO BÔCÔ events)

- All the people who answered that they didn’t eat any of the DISCO BÔCÔ commented that they will definitively do so but they’re waiting for the bôcô to be ready (For the pickles, for example, you need to wait several days before eating them).
- Various people who answered they didn’t eat the entire bôcô said that they want to eat it with parsimony to appreciate it for a longer period.
- Many people commented that the preparation were delicious!

3.3.2 What we should keep in mind...

- The festive, joyful and convivial dynamic of the session is a key dimension of DISCO BÔCÔ and the social cohesion objective is well achieved.
- Different kinds of messages (generally very precise) on food waste should be transmitted because some participants are already really aware of the issue. The quantity of waste is a striking aspect: we could consider presenting the weight of produce collected during the sessions. A major effort should be deployed on raising awareness of the need to reduce food waste, making the link to how preservation techniques support this (facts+skills=behaviour change).
- Participants really appreciated the opportunity to learn new culinary techniques and recipes and the **educational and taste education objective seems well achieved**.
- **Training sessions** should be organised because most of the participants don’t feel they are skilful enough to organise their own DISCO BÔCÔ session after attending just one session.
- The **good taste** of the preparations is essential for the consumption of the Bôcô back home. Working on the **recipes** is a key dimension of the project (to avoid subsequent food waste).
3.4 Qualitative Evaluation of the events

During DISCO BÔCÔ sessions various participants have been interviewed and their quotes transcribed.

3.4.1 Inside le Palais de la Femme social residence

...Escape loneliness
« I am raising my two kids alone and I arrived in France a few years ago so I don’t have many friends here. I never get the chance to spend such convivial and joyful moments » Marie, 42 years old

...Eat fruits and vegetables: « It makes me sick to see all these fruits and vegetables that are thrown away when we don’t have the money to buy them in our daily lives.» Thérèse, 55 years old

...Feel good about oneself
“We never really feel good about ourselves in our job, our daily lives... It’s always quite hard. But when we’re cooking, we are queens! We know what we’re doing, we have stories to tell about, advices to give, we have know-how and talent. During the DISCO BÔCÔ sessions we really feel empowered!” Jeanne, 36 years old

...Food waste is absurd! “It is so heart-breaking to see all these fruits and vegetables that have been thrown away. There are so many! Look at this carrot: it is perfect! I don’t even get why they wanted to throw it away! It is so unfair and absurd!” Anastasia, 11 years old

...Free food distribution “When I see the quantities of vegetables we collect, I think that we should go every day in supermarkets to collect these unsold products and distribute them for free to people like my mother who don’t have so much money. So that my mother could cook every day nice meals” Anouar, 8 years old
... Family time “My two girls are always asking me when will be the next DISCO BÔCÔ session! They enjoy it so much!! They really like the picking part and it is a nice way for me to share a joyful moment with my kids. Personally, I also really like to express my creativity through the recipes we cook during DISCO BÔCÔ. The fact that we never know before the sessions what fruits and vegetables we are going to collect obliges us to be very imaginative!” Nadija, 39 years old

... Care about the waste “Thanks to DISCO BÔCÔ, I really got to realise the quantity of food that is thrown away every day. Now I am trying to be even more careful at home. I must admit that sometimes I have to throw food away because I often cook very big quantities. Now, I am much more concerned about food waste, I am trying to change my behaviours” Farida, 46 years old

... Eat fruits and vegetables! “It is very important for our kids and us to eat more fruits and vegetables. Because we have limited budget we scarcely buy some. Thanks to DISCO BÔCÔ we can get our fill of vitamins!” Laishi, 43 years old
3.4.2 During DISCO BÔCÔ sessions...

... Delicious!! “This tomato and fennel chutney!!! A gastronomic marvel! Thank you very much Marine for your implication that allows us to fight against food waste with organic and non-polluted fruits and vegetables! ” Elsa, 29 years old

... A tasty second life! “It is so overwhelming to create together so nice recipes with unsold fruits and vegetables. We are saving them and giving them a magnificent second life!” Igor, 34 years old

... Easy! “‘Pickles’, ‘Kimchi’... I always thought this was way too difficult for me to do. Now I can see it is very easy!” Charlotte, 29 years old

... Restart to cook “I feel I still need a little more practice but it is a very good start for someone like me who doesn’t cook! DISCO BÔCÔ made me want to cook again at home. At the end cooking is so fun and easy!” Geraldine, 43 years old
... I prefer savoury preparations. “I love to preserve nice recipes during DISCO BÔCÔ sessions. Nonetheless, I never take Disco jams back home because I have difficulties eating them. I prefer savoury preparations such as this tomato chutney”, Asyha, 36 years old

... Learning culinary techniques and nutritional proprieties. “I never thought about preserving my fruits and vegetables in jars. I learnt so many techniques during the session! I also learnt the nutritional healthy proprieties of techniques such as lacto-fermentation. Now I want to experiment back home!” Matthieu, 29 years old

... Meet new people. “In Paris, it is sometimes so difficult to get to meet new people. This afternoon I met...my neighbours!! It is an incredible but true coincidence! Cooking together is the best way to get to meet people!” Loic, 57 years old

...Spice! “I loved to spice the preparations. Everybody entirely trusted me and there was a lot of spices available. I am very happy with the result!!” Geneviève, 48 years-old
4 Guidance on setting up a similar project

This section provides guidance on setting up similar projects in other cities, towns and countries. Based on the lessons from the DISCO BÔCÔ feasibility study, the key factors for setting up a similar project are provided in Section 4.1. The main steps in setting up a project are then described in Section 4.2. Then Section 4.3 provides more context of the lessons learned from the DISCO BÔCÔ project.

4.1 Key factors for setting up a similar project

Based on the lessons from the DISCO BÔCÔ feasibility study, the key factors for setting up a similar project are:

- Effective project management
- Building a multi-disciplinary network of partners
- Creating a community via social networks and other tools
- Raising awareness on food waste through educational material and communication
- Providing guidance materials, such as recipes and preservation methods
- Ensuring food safety and hygiene issues are addressed
- Ensuring financial sustainability

General guidance is provided below on each of these factors, and in Section 4.3 there are detailed examples and lessons learned from the DISCO BÔCÔ project that put these factors into context.

**Effective project management**

Effective project management is highly important. It includes:

- Plan and co-ordinate the events
- Obtain cooking materials
- Find venues
- Communicate to ensure participation
- Manage the budget
- Build partnerships
- Build a community of motivated volunteers
- Assign clear roles and responsibilities need to helpers
- Insure that all stakeholders take into account the security and hygiene requirements
- Disseminate the best practices and train as many people as possible
Building a multi-disciplinary network of partners

It is very important to gather various partners with different kinds of skills:

- **Retailers, storekeepers, market sellers or farmers** that can provide discarded fruits and vegetables
- **Food activist networks** that can participate to the dissemination of Disco Bôcô and can be motivated to help
- **Preservation experts** who are eager to share their cooking know-how and who are vigilant about the hygiene issues
- **Small household equipment companies in order** to be able to benefit from specialised cooking materials.
- **Social workers** and specialists of the well being of marginalized individuals and communities (if the event has a social dimension)

Creating a community via social networks and other tools

Interact with other existing communities (food activists, inspiring organisations, initiatives tackling the same issues)

These communities already have wide networks and connecting with them is essential to develop and to disseminate the DISCO BÔCÔ project.

Communicate widely:

- **Animate fan page on social networks**
  - Animate regularly your fan page with concise, fun and festive messages and news on the upcoming events
- **Disseminate the open-source toolkit**
- **Contact journalists to have press release**

Create and sustain a community of motivated individuals

DISCO BÔCÔ’s dissemination depends on the commitment of people that organise cooking sessions and that participate in the sessions. In order to gain that commitment a number of key things need to be evident.

- **Organise fun and festive** as well as **educational** events and be sure to cook delicious recipes ... to win the loyalty of participants
- **Give the participants the feeling they can learn and grow some skills with DISCO BÔCÔ**: give them key responsibilities and diversify the cooking know-how that can be learnt during the sessions
- **Use best practices and face to face meetings** with people eager to be empowered with the possibility of organising their own session

Raising awareness on food waste through educational material and communication
Pin up **educational posters** in order to raise people awareness on various topics during the events:

- food waste
- nutritious and healthy food
- preservation techniques

Deliver various levels of information (general to more specific) for you might have very well informed as well as uninformed participants

Be creative and imaginative on the way to raise people awareness (e.g.: pin up the **weight** of the collected fruits and vegetables during each session)

**Providing guidance materials, such as recipes and preservation methods**

**Explore various preservation techniques**

- Many preservation techniques exist. For example: **Freezing, Dehydrating, Vacuum packaging, Sterilization, Salt, Alcohol, Vinegar or Sugar preservation, Smoking, Lacto-fermentation, Brine fermentation.**
  Each methods require specific techniques and know how as well as specific hygiene requirements and materials
- **Sterilization or sugar preservation are not the only methods to preserve, so be creative!**

**Propose FUN, EASY and EDUCATIONAL recipes:**

- **Create easy and educational recipes:** Many participants are not very confident about their cooking skills and DISCO BÔCÔ aims at teaching new and original preservation techniques.
- At the end of the sessions, you may send **recipe-cards of every recipe made during the sessions**

**Create DELICIOUS recipes!**

- The flavour of the final product is very important to avoid waste!
- You may use original spices
- Adapt recipes to local context and taste (see Appendix 2)

**Gather the most convenient cooking equipment**

For each steps (sterilisation of jars, picking, cooking, pouring the preparation into jars) some specific materials are required

**Ensuring food safety and hygiene issues are addressed**

- Preserving fruits and vegetables imply real food safety risks of not taking the right actions
- For each preservation technique, it is highly recommended to follow rigorously the specific hygiene requirements
- Be sure participants are well informed about safety issues
- Designate a person responsible for hygiene during each session
4.2 Main steps in setting up a similar project

4.2.1 Main steps in setting up a similar project

The main steps in setting up a similar project are illustrated in the figure below.

- Identify the need and opportunity.
- Engage with the community.
- Appoint roles and responsibilities.
- Plan the events.
- Manage safety / hygiene risks.
- Awareness materials.
- Guidance materials.
- Hold Disco Boco events.
- Feedback mechanism.
The tasks within the main steps are further described below:

1. **Identify the need and opportunity**
   - Spot a place where Disco Bôcô can meet people’s need: nutritional disorder, social isolation, malnutrition, economic insecurity, etc.
   - Identify the needs of the community you engage with
   - Understand the context in which the action will be taken

2. **Engage with the community**
   - Take the time to present Disco Bôcô initiative and how it aims to act along with people from the community
   - Make sure you understand well the needs and expectations of the community by interacting regularly with it

3. **Appoint roles and responsibilities**
   - Define the roles of various people within the community you engage with
   - Identify key skills within this community
   - Make sure everyone is comfortable with their responsibility

4. **Plan the events**
   - Spot a store or market where you can find discarded fruits and vegetables close to the place you will organize the Disco Bôcô
   - Plan the proceedings of the event and the timing
   - Be sure to have available cooking material and specific equipment for some preservation techniques
   - Collect locally empty glass jars

5. **Ensure food safety / hygiene risks are managed**
   - Be sure the organizing team is aware of the specific hygiene requirement
   - Prepare posters on safety issues and specific cooking techniques that requires precise know-how, if you can
   - Undertake a risk-assessment

6. **Develop and disseminate awareness materials**
   - Create or gather awareness materials on:
     - Food waste
     - Nutrition
     - Hygiene

6. **Provide guidance materials**
   - Create or gather materials on specific culinary techniques (lacto-fermentation, vinegar preservation, etc.)

7. **Hold the events**
   - Collect locally discarded fruits and vegetables
   - Wash and sterilize the jars
   - Wash the collected fruits and vegetables
   - Decide on the recipes you want to cook
   - Pick in a festive atmosphere and with music
   - Cook and season
   - Embellish your jar
   - Pour into pots
   - Let the participant go back home with their Disco Bôcô
8. Implement feedback mechanisms
- At the end of the event, establish a list of pros and cons, of the best practices and of what should be improved: you may add what you’ve learnt as comments on the Disco Bôcô fan page and the Disco Soupe website (they will be integrated in the toolkit if necessary).
- If possible send a survey to participants to be able to receive their feedback- It is important to identify lessons learnt and understand what is/or is not, working well, this can be achieved through conducting research.

See more details on organization in Toolkit (Appendix 3 and discosoupe.org/discoboco)

4.2.2 Local context versus International replication

One of the main objectives of FUSIONS’ feasibility study was to understand “how scaleable or replicable social innovation is given it’s grounded in its local context & the way participants understand their environment?"9.

“National context social innovation determines the extent to which social- and community-based change through social innovation will need to be sensitive to the national context, and hence where Member State policy rather than EU policy may play the more significant role”10.

Universal required key organizational elements

DISCO BÔCÔ has been implemented in France with the objective of replicating the format in different countries, like Disco Soupe’s format that is now set up in many countries (Spain, Greece, Sweden, Italy, United States, Korea, …) Similar to Disco Soupe, DISCO BÔCÔ can be adapted to many kinds of environments and is not specifically linked to the particularities of the French context, thus it requires:

- Sources of food waste. Nowadays, it is relatively easy to spot sources of food waste in cities, especially in the Western world. DISCO BÔCÔ is more adapted to urban contexts but can also be organised in the countryside along with gleaning activities.

- Participants eager to cook in a convivial atmosphere and to combat food waste. Again, this can be found in various countries!

- Cooking materials and jars.
This is universal!

- Musicians
This is universal too!

- **A place to organize the cooking sessions**

These 4 key essential elements to organise DISCO BÔCÔ sessions are easy to find in various places of the world.

- **A favourable local context**

  "The primary policy support for these kinds of social innovation activities may be through the provision of public services, for example, making public buildings accessible and available for low or no-cost to facilitate group meetings. Kitchens might be loaned out for cooking classes, for example."

DISCO BÔCÔ requires simple elements that can be found in various places. Nonetheless, it is true that the national French context was quite positive for the development of DISCO BÔCÔ. The fact that various public institutions and companies put food waste at the top of their agenda has offered a fertile ground.

- Since 2012, the [PLPD](#) (local programmes to prevent waste, that are now compulsory in local authorities) have the ambition to reduce waste and support many initiatives combatting food waste.

- Various public institutions encourage citizens to participate in social innovation initiatives fighting food waste and organise campaigns in order to raise people’s awareness (see images).

- Various firms in France included the objective of food waste prevention in their Corporate Social Responsibility (CSR). For example, Intermarché organised the ugly fruits campaign ("Les fruits et légumes moches")).

As a matter of fact, in Europe the situation is quite similar in various countries and the 2014 European Year against food waste created a favourable dynamic.
4.3 Context of the lessons learned from the DISCO BÔCÔ project.

4.3.1 Effective project management

Marine Lafon has led the project, with the Disco Soupe community and Feedback.

Feedback (Niki Charalampopoulou, Liora Wulf and Tristram Stuart) played a central role for it was leader of the DISCO BÔCÔ project and the employer of the project coordinator (Marine Lafon).

During the feasibility study, Disco Soupe had the following responsibilities:
- in charge of the concrete realizations of the project,
- responsible for the impacts of the project (insurance, etc.),
- providing the person in charge of the project (Marine Lafon),
- in charge, with Feedback, of the administrative management of the project.

BIO by Deloitte (Clementine O'Connor, Manuela Gheoldus and Hortense Montoux) supported DISCO BÔCÔ’s project management and various meetings were organised in Paris between BIO by Deloitte and DISCO BÔCÔ.

BIO by Deloitte supported occasionally the project with various tasks:
- Project management,
- Completion of delivery documents,
- Audit in accounting.

Feedback and BIO by Deloitte were responsible for the delivery of the project.

WRAP supported DISCO BÔCÔ to deliver, evaluate and communicate the outcomes of the feasibility study. Several project management Skype meetings were organised with Marine Lafon.

DISCO BÔCÔ also attended 3 FUSIONS events:
- On the 28th of May 2014 in London, during the second FUSIONS North West European Regional Platform event in London (Love Food Hate Waste), Marine Lafon attended and was speaker in a roundtable (‘Working in partnership, collaboratively’).
- On the 30th October 2014, Marine Lafon attended the FUSIONS European Platform Meeting (EPM) in Brussels, an annual event arranged by the FUSIONS partners to involve a wider range of stakeholders in the project activities and strategic planning. During this meeting, she met the other persons leading the projects supported by FUSIONS.
- On the 26th of May 2015 in Paris, Marine Lafon attended the Fusions North West European Regional Platform event in Paris and presented the DISCO BÔCÔ project to all participants.
4.3.2 Building a multidisciplinary network of partners

DISCO BÔCÔ addresses complex social issues. In order to face this complexity, DISCO BÔCÔ adopted a multi-stakeholder and multidisciplinary approach (see 1.3.4).

**Armée du Salut (Salvation Army) – Le Palais de la Femme Social Residence**

The pilot project has been led with the Salvation Army, a charitable organisation created 130 years ago that set up 421 social residences in France and in other countries, inside a social residence called Le Palais de la Femme that hosts 350 women in need.

This partnership has been a key element to work on the social dimension of DISCO BÔCÔ, both on social isolation and food vulnerability.

DISCO BÔCÔ worked closely with social workers who helped us a lot with their advice on how to work with underprivileged public. They also worked with us on the impact of our actions and helped us properly address some issues.

It has been really important to match the new objectives of the social workers with those of DISCO BÔCÔ. This is why, during one year, we have been working on various aspects the social workers wanted to focus on:

- Raising awareness on food waste at home, especially on cooking the right quantities (because of cultural aspects, residents often cook way more than necessary: the rest is often thrown away);
- Opening up the social residence to the neighbourhood and to people coming from outside;
- Creating social cohesion between residents who have often difficult relationships with one another (many cases of violence have been reported);
- Creating parents and kids moments of exchange;
- Disseminating healthy advices on food.

After each session, a report has been made (description, pros/cons, suggested improvements) with DISCO BÔCÔ organisers, social workers and some residents. These reports have been synthesised throughout the report. It has been really important to include the residents in the whole process and to interact a lot with them in order to adapt the DISCO BÔCÔ format to their needs and to understand better the impact of our actions.

This partnership has been successful and at the end of the year (December 2014) the social workers said they wanted to continue working with us.

We also worked with other social residences and charitable organisations.
At the beginning of the feasibility study, 2 specialists agronomists worked volunteer hours on the hygiene and technical aspects of DISCO BÔCÔ. The president of the Food Science and Technology Department and a lecturer, a researcher specialist of hygiene practices, had kindly accepted to help us on the respect of hygiene procedures during the DISCO BÔCÔ sessions as well as on the textures and tastes of the products we created.

Then, because they appreciated the DISCO BÔCÔ project, they offered us to propose this subject to 2 MSc students. As a result, since September 2 students, Béatrice Najem and Alexandra Colmant have been working with us. It is a very thrilling collaboration because they provide valuable advice on hygiene but also on particular recipes and culinary techniques, interesting both in terms of nutritional proprieties and flavours (see 4.5 and 4.6)

We meet on Skype every 3 weeks and they also assisted 2 DISCO BÔCÔ sessions.

We also met Barbara Redlingshofer from INRA\textsuperscript{11} who gave us some advice on our work.

\textbf{The Food Assembly} (La Ruche qui dit Oui !)

The Food Assembly is an online service for a more efficient local food distribution. The online sales platform facilitates direct exchanges between local producers and a community of customers that meet regularly at pop-up markets, also known as Food Assemblies.

The first Assembly was created in France three years ago. Today, there are more than 600 in France, Belgium, Spain and Germany.

During the feasibility study, various Food Assemblies organised DISCO BÔCÔ sessions: it is indeed a great way to federate a group of people and get them to know one another, especially for consumers and producers. DISCO BÔCÔ seems perfectly adapted for this kind of initiative.

On the 5\textsuperscript{th} of July 2014, the first DISCO BÔCÔ event with high quality unsold fruits and vegetables coming from the Food Assembly farmers’ fields was organised in the biggest Food Assembly in Paris. The idea seduced the headquarters and a DISCO BÔCÔ was then organised during the Food Assembly annual national meeting in September. After that, 3 Food Assemblies organised their own independent DISCO BÔCÔ session:

Working with The Food Assembly allows DISCO BÔCÔ to:

- **Spread the format at a national level**: The Food Assembly is a large community and 600 pop-up markets exist.
- **Work on the question of unsold fruits and vegetables on farmers’ fields and collect high quality, local and seasonal products\textsuperscript{12}**.
- **Work on the question of social links between urban consumers and producers**.
- **Create more ambitious projects**: Following the first Food Assembly where a DISCO BÔCÔ session was organised, thanks to the preliminary work we did with the producers on their unsold fruits and vegetable, a more ambitious project is emerging: it consists in transforming the unsold products into soups to sell them inside the pop-up market.

\textsuperscript{11} INRA is a French public research institute dedicated to scientific studies concerning agriculture.

\textsuperscript{12} Some meetings with the Gleaning Network (Feedback) have been organised on Skype (see 4.3.1) to help us imagine and organise gleaning and cooking sessions.
The partnership is very constructive because of the complementarity of both projects. Today, Marine Lafon is working on a project of a pop-up Food Assembly market in an Armée du Salut social residence where she will regularly organise DISCO BÔCÔ sessions to animate the community.

**SEB**

*World leader in small household equipment*

DISCO BÔCÔ answered a call for projects of Seb and was selected by the foundation. It allowed us to equip 3 Disco Soupe groups in *Nantes, Marseille and Lyon* with small household equipment (blenders, weighing scales, pressure cookers, strainers, etc.). This has been a key element to launch DISCO BÔCÔ dynamic in other cities. A report will be written in order to inform the foundation on how these cooking materials are being used.

**Monoprix**

*Large retailer, Monoprix has more than 500 supermarkets in France*

Two years ago, Disco Soupe built a partnership with Monoprix and DISCO BÔCÔ took advantage of this partnership. A meeting took place in November 2014 and Monoprix was very happy with the Disco Soupe and DISCO BÔCÔ partnership. They also let us know that some supermarkets would be eager to give us their unsold product *every day*. It seems that a more regular collection of unsold fruits and vegetables would help them to make their processes more fluid.

Nonetheless, today, DISCO BÔCÔ aims at collecting quality, local and seasonal fruits and vegetables. That is why, even though at the beginning of the feasibility study we collected a lot of discarded products in the Monoprix supermarkets, today we collect most of them in organic supermarkets or markets or directly from farmers’ (Food Assembly).

**Région Île-de-France (Ile-de-France Region)**

*Governmental institution*

After answering a call for projects from Île-de-France Region DISCO BÔCÔ was selected and received 20,000 euros to develop the project, specifically inside social residence. This money will also allow us to build a special toolkit for social workers.

**Le Parfait**

*Le Parfait sells jars to preserve food preparations. With its symbolic orange rubber seal, Le Parfait has been iconic for many generations.*

The partnership with Le Parfait started in June 2015: they delivered 200 jars to Disco Bôcô in order to organise events as well as two sterilisers. This partnership also allows us to get in touch with their community of preservation experts and in September 2015, 3 events will be organised with Le Parfait and one of their preservation expert inside a social residence.

For other partners, see part 4.3.1

### 4.3.3 Creating a community via social networks and other tools

DISCO BÔCÔ’s diffusion and replication depends widely on it’s capacity of building and leading a collaborative community of individuals committed to combating food waste by preserving discarded fruits and vegetables inside bôcôs.

**Interacting with other existing communities**
DISCO BÔCÔ started to build its community on already existing wide communities it was linked to. These communities already had important networks and connecting with them has been essential to develop and to disseminate the DISCO BÔCÔ project.

> **DISCO SOUPE** is the “mother” of DISCO BÔCÔ, the initiative being born inside the Disco Soupe community. Inspired by Slow Food Youth Movement's "Schnippel Disko" in Germany, Disco Soupe is a non-profit organisation based in France that addresses food waste issues through festive community events. Disco Soupe sets up collective gatherings for people to peel, cut and prepare discarded fruits and vegetables. The products are turned into soups and salads, and then redistributed for free. The development of DISCO BÔCÔ initiative has greatly relied on the Disco dynamic and people-led community.

> **FEEDBACK** is an environmental organisation that campaigns to end food waste at every level of the food system. It catalyses action to eliminate food waste globally, working with governments, international institutions, businesses, NGOs, grassroots organisations and the public to change society’s attitude toward wasting food. Feedback was the FUSIONS’ project leader of DISCO BÔCÔ and the employer of the project coordinator (Marine Lafon).

> **SLOW FOOD** is a global grassroots organization with supporters in 150 countries around the world who are linking the pleasure of good food with a commitment to their community and environment. The link with Slow Food is very important in terms of taste education. Slow Food has made a very inspiring work on that topic.

> **MAKESENSE** connects Social Entrepreneurs with individuals ready to take up their challenges. MakeSense is an open project built by a community of people passionate about Social Entrepreneurship, Innovation and the web.

> **OUISHARE** is a global network empowering citizens, public institutions, and companies to build a society in which every person has access to the resources and opportunities they need to thrive. OuiShare believes that an economy based on sharing, collaboration and openness can solve many of the complex challenges the world faces.

**Building DISCO BÔCÔ’s own community**

Social innovation is people-led (see part 1.3): being action-focused, DISCO BÔCÔ’s dissemination depends on the commitment of people that organise cooking sessions and that participate in them. This characteristic helps create and sustain a community of motivated individuals.

During the feasibility study, DISCO BÔCÔ built its own community and, therefore, its own identity. Even if it is intrinsically linked to Disco Soupe, its objectives - that go beyond raising awareness on food waste (fight against social isolation and food vulnerability) - builds its own identity. The community of DISCO BÔCÔ tends to differ from Disco Soupe’s with participants interested by the taste education aspect as well as by the social...
dimension. Disco Soupe rarely works with people in need and social residences whereas this dimension is really part of DISCO BÔCÔ’s DNA.

**Disco Bôcô Design**

At the beginning of the feasibility study, DISCO BÔCÔ worked with a design school (CFA des Métiers et de la communication visuelle) on the visual identity of DISCO BÔCÔ. 60 students of this school worked on it and it was a very interesting exercise for us to decide what was our identity and what we wanted to communicate.

In the end, we decided that DISCO BÔCÔ visual identity should be linked to Disco Soupe’s and we chose to change the Disco Soupe cauldron into a “bôcô” (jar) using a fun baseline with play on words and specific warm colours. The graphic designer (Floriane le Roux) also created special images for DISCO BÔCÔ and a festive graphic world mixing vegetables and music instruments that seem to be dancing.

We use this graphic world a lot for our labels:

2 different colours labels to distinguish products with different expiration dates (see 4.6)
Communicate on social networks
DISCO BÔCÔ has its own Facebook fanpage animated about 3 times a week by Marine Lafon.
On the fanpage, the posts concern:
- upcoming events,
- pictures of organised events, comments about them and details of the recipes cooked during the sessions,
- recipes that can be poured into jars,
- information about food waste: figures, press release, inspiring initiatives,
- initiatives on: food waste, how cooking can combat vulnerability, gleaning initiatives, sustainable agriculture, etc.
- fun pictures of unsold fruits and vegetables.

Posts are always concise, fun e.g. a play on words, and illustrated by nice images.

This fan page is an essential tool to build DISCO BÔCÔ’s identity and community.

Facebook is the main way to communicate on the upcoming events. Most of the time, a special event page is created in order to communicate on a specific event. After the event, information (recipe-cards, ideas on ways of eating the “bôcôs” – on bread with cheese, with couscous, etc.) is directly posted on these pages.

Facebook also allows us to connect with other networks and to let them know about our initiative. Thanks to Facebook we connected with international networks such as Foodsharing or Slow Food Youth Network: we let them know about the advances of DISCO BÔCÔ.

Build a wide community of participants
To build a community, it is important to win the loyalty of the participants.
To do so, the sessions must be fun and festive as well as educational (on food waste and taste education), and the recipes delicious!

Participants also have to feel they play an active role in the whole session and it is essential to give to various participants key responsibilities (hygiene, spicing, jars, etc. See toolkit). This will empower them and also help to make the organisation of the session more fluid.

Besides, participants can write down their email address during DISCO BÔCÔ sessions to directly receive recipe-cards, culinary advice and information about forthcoming sessions. Emails are more personal than Facebook.

It is also important to build a community of people who participate regularly in DISCO BÔCÔ sessions. The survey (see part 3.3) indicated that most of the participants came for the first or second time to a DISCO BÔCÔ session. That is perfectly normal due to the relative novelty of the project. Nonetheless, to build a community, it is essential to have, in every city where DISCO BÔCÔ sessions are organised a little
community of very committed participants. It is a key factor for the success of the project. Besides, when people come regularly, the organisation of sessions is much more fluid thanks to these people who already know the process.

To win their loyalty, they must have the feeling they can learn and grow some skills with DISCO BÔCÔ. This is why, it is important to give them responsibilities and to train them on several dimensions they are interested in (recipes, preservation techniques, animation, food waste prevention, etc.)

° Training sessions
The analysis of the survey (see part 2.3) showed us that the organisation of training sessions for small groups of individuals could be effective. Within the Disco Soupe community we started to organise training sessions to teach participants to organise their Disco Soupe. We could do the same for DISCO BÔCÔ.

° Disseminating the open-source toolkit will also be a way of increasing the community giving participants the means to organise their own DISCO BÔCÔ sessions. The dissemination of this concrete and detailed document is going to be essential for the disseminatin of DISCO BÔCÔ community. The open-source toolkit is a live document that will continually take on board feedback and new ways of running DISCO BÔCÔ sessions.

° Nationwide organisations
Working with well implemented organisations such as Armée du Salut (Salvation Army), is also a way to widen DISCO BÔCÔ’s community. Indeed, when a pilot project in one residence succeeds, then it can be easily replicated in others.

DISCO BÔCÔ also works with the Fédération des centres sociaux et socioculturels de Paris (36 social centres in Paris).

° Communicating via newspapers
Several press articles talked about DISCO BÔCÔ. Press release is essential to communicate on DISCO BÔCÔ and increase the community.

- In Elle à table, the most read cooking magazine in France (1,143,695 readers) a famous foodista blogger, Clotilde Dussolier, wrote about DISCO BÔCÔ.

Look at her posing with a DISCO BÔCÔ!

- In the weekly newspaper, La vie (110 750 copies sold per year) Marine Lafon has been interviewed in a special article on food waste.

- The daily newspaper 20 minutes Lyon (70 971 copies distributed each day in Lyon) and Metronews (2nd most read daily newspaper in France) announced a DISCO BÔCÔ in Lyon and wrote an article about the initiative.

Other blogs and website also wrote about DISCO BÔCÔ.
Building “Les empoteurs” community

DISCO BÔCÔ built a community on Facebook called “Les empoteurs” (literally: those who pour things into jars) that gathers different people in France who are working on projects linked to the preservation of unsold fruits and vegetables. There are many interesting interactions in this community where we exchange best practices.

The objective is to create a small movement of food waste entrepreneurs dedicated to the preservation (in jars) of discarded products. It is a small community gathering of 32 individuals, among which various project initiators in different regions of France. This network aims at linking project initiators to one another and creating synergies between similar projects all around France.

Exchanging good practices and documents can be very helpful for many food waste entrepreneurs and can save precious time. It is also a way for entrepreneurs to feel part of a wider community and can prevent them from being discouraged by their loneliness. Besides, it can increase the impact of the projects.

- 3 Skype calls were organised for people to meet and talk about their initiatives and imagine synergies.
- 1 face-to-face meeting was organised in Marseille on the 25th of June 2014.

Here are 2 examples of project initiators belonging to the empoteurs community:

- **Colette Rapp** has created Re-belles: she is making jams from unsold fruits and vegetables and selling them.

- **Baptiste Bourdeau** has created “La Conserverie solidaire” (The solidarity cannery), a project based in Chambéry (Savoie, France), which strives to fight food waste by creating sustainable jobs for people who have trouble in finding work and support to local farmers. The project is supported by a Cocagne garden\(^\text{13}\), Les Triandines.

Besides, another objective of this network was to spot inspiring projects aiming at preserving discarded fruits and vegetables. Members of the community practiced a sort of monitoring on this kind of initiative and disseminated information about them.

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\(^\text{13}\) The Cocagne Network unites the Jardins de Cocagne (the Cocagne Gardens), organic market gardens designed to help people reintegrate into the social and professional world.  
http://www.reseaucocagne.asso.fr/
During the summer, a nice emulation among the members allowed various “empoteurs” to go and meet these initiatives:

- **2 empoteurs** from Paris and Chambéry spent 3 days with **Le Bateleur** (Ardèche) that preserves unsold fruits and vegetables from farmers in the Ardèche region.

- **2 empoteurs** from Marseille got to meet the **Boucau** team (Bouches du Rhône): they travel in their mobile cannery to preserve unsold fruits and vegetables from farmers in the Bouche du Rhône region.

- **2 empoteurs** from Paris spent time with Dominique from **Les confitures de Dominique** (see picture) in Bordeaux who transforms undistributed fruits and vegetables from the food bank.

- **2 empoteurs** from Paris and Chambéry spent 2 weeks with **Longo Mai** (Bouches du Rhône): they have a huge cannery to preserve fruits and vegetables from farmers in the region.

- **2 empoteurs** from Lyon and Paris met **l’Autofabrique** (Rhône) that organises training sessions for people to learn how to preserve fruits and vegetables avoiding the sterilization method. The main objective is to fight against food waste by preserving huge amounts of unsold fruits and vegetables left on farmers’ field especially during spring.

- **1 empoteur** from Chambéry spent 3 days with **La Poule aux Fruits d’Or** (Isère): they are elaborating and selling tasty jars in order to preserve the unsold fruits they grow on their farm.

- **1 empoteur** from Paris had a phone call with **Fruimalin** (Bourgogne): they preserve fruits and vegetables gleaned on fields.

- **2 empoteurs** from Paris gleaned with **Cueillette Solidaire** (Alpes Maritimes): they glean fruits and vegetables from the field and sometimes preserve them in jars.

- **2 empoteurs** from Paris organised a DISCO BÔCÔ with **Boco Loco** (Paris): a community café project aiming at serving food preserved into jars.

- **2 empoteurs** from Paris met **Légum’andises** (Champagne-Ardenne): they preserve unsold fruits and vegetables from farmers and sell the preparations.

- **1 empoteur** met **Le Bocal Local** (Aquitaine): a project that transforms gleaned fruits and vegetables and preserves the preparation into jars.

- **2 empoteurs** from Paris met **Le Potager de Marianne** close to Paris (Rungis): they preserve unsold fruits and vegetables on the biggest wholesale trading centre in Europe (Marché d’Intérêt national –Rungis). They employ underprivileged people.

- **2 empoteurs** from Paris and Chambéry met **La Conserverie de Marcoussis** close to Paris (Marcoussis). They preserve fruits and vegetables coming from local farmer’s fields. They employ underprivileged people.

**Informal reports** on each initiative have been written and circulated among the community.

**Building a wide network of inspiring initiatives**
As mentioned in part 4.3.3, during the feasibility study we got in touch with various inspiring initiatives **in France and in other countries**. Here are the projects we got in touch with and that inspired us:

> **Projects that aims at preserving unsold fruits and vegetables into jars:**
(See details of the project above in 4.3.3)
<table>
<thead>
<tr>
<th>Name of the project</th>
<th>Country</th>
<th>Origin of waste</th>
<th>Existing economic model?</th>
<th>Dedicated exclusively to food waste?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-belles ★</td>
<td>France (Paris)</td>
<td>Supermarkets</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Le Bateleur</td>
<td>France (Ardèche)</td>
<td>Farmers’ fields (gleaning)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Boucau</td>
<td>France (Bouches du Rhône)</td>
<td>Farmers’ fields (gleaning)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Les confitures de Dominique ★</td>
<td>France (Bordeaux)</td>
<td>Food bank</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>L’Autofabrique</td>
<td>France (Lyon)</td>
<td>Farmers’ fields (gleaning)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cueillette Solidaire</td>
<td>France (Alpes Maritimes)</td>
<td>Farmers’ fields (gleaning)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Le Bocal Local</td>
<td>France (Aquitaine)</td>
<td>Farmers’ fields (gleaning)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Légum’andises</td>
<td>France (Champagne-Ardenne)</td>
<td>Farmers’ fields (gleaning)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Fruimalin ★</td>
<td>France (Bourgogne)</td>
<td>Farmers’ fields (gleaning)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>La Poule aux Fruits d’Or</td>
<td>France (Isère)</td>
<td>Farmers’ fruits and vegetables</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Longo Mai</td>
<td>France (Bouches du Rhône)</td>
<td>Farmers’ fruits and vegetables</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>La Conserverie solidaire ★</td>
<td>France (Chambéry)</td>
<td>Food bank</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Le Potager de Marianne (ANDES)★</td>
<td>France (Paris)</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>La Conserverie de Marcoussis ★</td>
<td>France (Ile-de-France)</td>
<td>Farmers’ fruits and vegetables</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Zero Waste Jam</td>
<td>Austria</td>
<td>Private and public gardens, community gardens, forest</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Rubbies and the Rubble ★</td>
<td>UK</td>
<td>Farmers’ fruits and vegetables &amp; supermarkets</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Marmelade fuer alle</td>
<td>Germany</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

* The projects that are not entirely dedicated to transforming wasted fruits and vegetables also transform not necessarily discarded fruits and vegetables

*Projects with a social dimension*
° No existing economic model means that the project doesn’t have sufficient sources of income yet to be profitable.

> **Gleaning networks:** DISCO BÔCÔ worked with the French Gleaning Team, Re-bon on a project of gleaning & preserving sessions. In this dynamic, various Skype meetings have been organised between The Gleaning Network UK (Dan Wooley and Niki Charalampopoulou). DISCO BÔCÔ also met Les fruits du Voisin, a French initiative dedicated to gleaning fruits in private gardens to imagine possible future collaborations (no common actions have been led yet).

> DISCO BÔCÔ got in touch with other inspiring initiatives in terms of raising public awareness (Comida Basura – Spain; Disco Soupe international network), mobilising civil society (Partage ton frigo – France, SuperMarmite – France, Future of Waste - France), mobilising large retailers (Zéro Gachis - France, Phenix – France, Food Cowboy) building an economic model (Simone Lemon – France), transforming discarded products (Snact – UK ; Rejuice – UK), collecting unsold products from little supermarkets (Optimiam – France)

4.3.4 Raising awareness on food waste via educational material and communication

° During DISCO BÔCÔ sessions we found it important to pin up educational posters in order to raise people’s awareness on food waste. Here are some examples of the posters that have been created during the feasibility study by Floriane le Roux, a graphic designer working inside the Disco Soupe community.
° The online survey made us aware that **various levels of information** (general to more precise) about food waste should be delivered depending on the global awareness of participants.

° Thanks to the online survey (see part 3.3), we realised that the **quantity** of collected unsold fruits and vegetables was very striking for participants: we should try to pin up the **weight** of the collected fruits and vegetables during each sessions.

° On the DISCO BÔCÔ fanpage we communicated a lot on food waste, posting inspiring initiatives as well as press articles in order to raise public awareness (see image).

° DISCO BÔCÔ fanpage has about **1,000 fans** (June 2015).
4.3.5 Providing guidance materials

Exploring the Preservation Techniques

Many preservation techniques exist. Here are those we worked on: Freezing, Dehydrating, Vacuum packaging, Sterilization, Salt, Alcohol, Vinegar or Sugar preservation, Smoking, Lacto-fermentation, Brine fermentation. The objective was to understand whether and how these methods could be used during the DISCO BÔCÔ sessions and to decide on the most convenient methods to use depending on:

- The hygiene and safety issues,
- The required timing for the realisation of the recipes,
- The easiness of the recipes,
- The final product quality in terms of nutriment,
- The final product quality in terms of texture and colour,
- The required equipment.

Classic DISCO BÔCÔ events last 4 hours and are open to anyone. Nonetheless, it is important to notice that DISCO BÔCÔ sessions can be adapted: our work on specific preservation techniques that are much more difficult to realise but very interesting in terms of conservation of nutriments and flavour made us realise that special formats of workshop on specific techniques could be imagined.

All these techniques are very interesting to fight against food waste and give a beautiful second life to unsold fruits and vegetables.

The open source toolkit presents in detail each of these methods and illustrates them with recipes.
<table>
<thead>
<tr>
<th>Preservation technique</th>
<th>General Specificities</th>
<th>Example of recipes</th>
<th>Pros and cons for DISCO BÔCÔ sessions</th>
</tr>
</thead>
</table>
| **FREEZING**           | - Defrosted food should be consumed very quickly (48 hours)  
                         - Most of the vegetables should be scalded before freezing (to block micro-organism proliferation)  
                         - Fruits shouldn’t be scalded before freezing  
                         - Place the fruits or vegetable on a plate, freeze them during a few hours at a very low temperature and then pour them quickly into an hermetic receptical and freeze them again  
                         - Freezing preserves most of the nutriments | Frozen  
                         - Broccoli,  
                         - pear,  
                         - chard stalk,  
                         - soup or compots,  
                         - orange slices, etc. | - The bôcôs, glass jars can explode: use plastic bags or plastic jars  
                         - At the end of the session we often have left over already picked fruits and vegetables. Putting them in congelaion bags and giving them to participants with specific advices can be a way to be sure they will be eaten.  
                         - Safety issues: we cannot control the temperature of the freezer of the participants. |
| **DEHYDRATING**        | - One of the most natural way of preservation  
                         - Deshydratation can be made under sunlight (approx. 10 days), in an oven (50°C) (2x12h) or in a deshydrator (15h) | - Raisin,  
                         - crip kale chips,  
                         - crip apple chips,  
                         - deshydrated turnip,  
                         - deshydrated orange slices | - Dehydrating is very long and not adapted to classic formats of events.  
                         - Some leaf vegetables such as spinach or kale or sliced fruits are quicker to dehydrate: a DISCO BÔCÔ containing kale chips can perfectly be prepared  
                         - Dehydrating is interesting in sunny and dry places  
                         - Dehydrating requires special equipment: oven or dehydrator.  
                         - People can practice it at home: like freezing, some picked and unused fruits and vegetable can be distributed at the end of the session with detailed advices for people to dehydrate them |
| **VACUUM PACKAGING**   | - Food is placed in special boxes or bags and air is vaccumed thanks to a special equipment  
                         - Allows a very good preservation of the flavour of the food | Nearly any kinds of fruits and vegetables can placed under vacuum | - Need special equipment : a specific air vacuum machine as well as specific bags that have to be bought every time : too expensive for DISCO BÔCÔ |
### Sterilization
- Place your fruits and vegetables in adapted jars and sterilise them in a steriliser. Sterilizing time depends on the nature of the sterilised product.
- Risk of contamination: botulism (the contamination of the product isn’t perceptible neither by the appearance, the taste nor the smell).
- After sterilizing, practice a little test: if bubbles appear when the preparation is in contact with the lid the product is unsafe.
- To be sure to kill all the bacteria: sterilise it twice: a second time (half the time of the first time) 48h after the first time.
- Time of sterilisation depends on the nature of the product.

### Salt Conservation
- One of the most ancient technique of preservation.
- Different techniques exists (dry salt or brine).
- Use natural and dry salt.
- Little pieces (little fruits, grated vegetables, mushrooms, aromatic herbs) are piled up in a jar alternating with layers of salt.
- Brine: boiled salted water.
- Time of maceration and conservation are specific to the food.
- To be consumed, the salted food needs to be desalinated under water.

### Oil Conservation
- Use quality olive oil.
- Vegetables are scalded during few minutes, dried in a cloth and then placed in a jar with aromatic herbs, spices and/or shallots and garlic. They are covered generously with olive oil.

### Difficulties
- Difficulties in terms of hygiene issue (problem of botulism): the entire process should be perfectly safe and during festive and convivial sessions it is sometimes hard to check.
- Specific equipment is required: sterilizers but also rubber lids and jars that have to be bought every time.
- It is not safe to use second hand glass jars because any defects on the jars can undermine good and safe sterilisation: huge additional cost for DISCO BÔCÔ sessions.
- Sterilisation can be practiced with very small groups of participants when "everything is under control"!
- Sterilisation kills the majority of the nutrients inside the food.

### Advantages
- Very easy and fun method.
- Salt is unexpensive.
- Doesn’t require any specific material.
- Some methods require to weight the preparation during a week: participants could do it back home.
- Safety issues: Brine: be careful to cover entirely the products.
- Beware of where you keep the salt: it should be dry!

### Sanitation
- Good quality olive oil is expensive.
- Fun, easy and safe method.
- Safety issues: beware of the expiration date of the oil!
Vegetables have to be entirely covered with...
<table>
<thead>
<tr>
<th>FUSIONS</th>
<th>Reducing food waste through social innovation</th>
</tr>
</thead>
</table>

| **ALCOHOL CONSERVATION** | All fruits can be preserved in alcohol (small fruits don’t require any treatment but big fruits have to be pricked)  
- Use 45°C max. alcohol  
- Maceration last about 2 months  
- The products can be consumed during 1 year |

| **Fruits preserved in alcohol:**  
Brandy Quince, Rum figs, orange in cognac, red wine pears |  
- Alcohol is quite expensive  
- This method is not convenient for DISCO BÔCÔ with kids or for publics with psychological disorders or alcoholic addiction! |

| **VINEGAR CONSERVATION** | Any types of vinegar can be used. Depends on the flavour you want!  
- Most common preparations: pickles and chutneys  
- Pickles: soak or blanch the vegetable to eliminate the majority of water they contain (vinegar loses antiseptic proprieties when it is in contact with water). Put them in a jar with aromatics and cover with boiling or tepid spiced vinegar. Pickles should macerate at least 15 days and should be eaten within 3 months after preparation.  
- Chutneys: vinegar and onions preparation. Chutneys should macerate during at least 15 days before consumption  
- Non metallic lids should be used |

| Quince pickles, cucumber pickles, zucchini chutney, etc. |  
- Soaking can take a long time (2h-3h): it should be done at the very beginning of a DISCO BÔCÔ session  
- Safe and delicious!  
- Safety issues:  
- Pickles must be entirely covered with vinegar  
- Jars should be kept in a dark and cool place |

| **SUGAR CONSERVATION** | Common preparations: jams, crystallized fruits, fruits in syrup  
- Jams need pectin: some fruits contain a lot of pectin (red currant, sour apples, quinces) others contain very little (strawberries, figs,  
- Beetroot and apple jam,  
- Rhubarb strawberry jam  
- Pear in syrup, etc |  
- Easy and delicious preparations  
- For the taste education objective, jams are not very convenient because they don’t have any nutritional benefits  
- Specific material: copper cauldron, |

| olive oil, etc. | olive oil  
The vegetables shouldn’t be grabbed directly in the oil with one’s fingers (risk of contamination) | olive oil  
- Preparations should macerate during 15 days before eating it.  
- Preparations can be eaten up to 6 months after their preservation |

| oil |  
- Preparations should macerate during 15 days before eating it.  
- Preparations can be eaten up to 6 months after their preservation |
<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
<th>Equipment/Notes</th>
</tr>
</thead>
</table>
| Developing DISCO BÔCÔ   | - In jams, use at least 750 gr of sugar per kg. At the end, the preparation should contain 65% of sugar to avoid any contamination risk (amount of sugar depends on the fruits) | refractometer, thermometer  
- Safety issues: fruits in syrup should always be sterilised (the preservation doesn’t depend on the sugar)  
Jams should contain 65% of sugar: use refractometer  
| Smoking                  | - Smoking can be made in a wok or a pressure cooker, putting the vegetables on a grill  
- Smoking can also be practiced with specific equipments such as smokehouses  
- Vegetable are sliced thinly and can be smoked with different kind of combustibles (wood but also tea, flour, rice, sugar, etc)  
- Smoked vegetables can be eaten during 1 week | Cabbages, peas, carrot, cabbage, cauliflower, onions, zucchini, asparagus or eggplants can be smoked  
- Interesting in terms of flavour and originality  
- small proportion smoked vegetables can be prepared during DISCO BÔCÔ on a wok  
- Requires specific equipment: wok, grill (or smokehouse)  
| Lacto-fermentation       | - To ferment fruits and vegetables:  
1. Chop or grate them  
2. Salt and pound or squeeze until moist OR soak them in a brine solution for a few hours  
3. Pack them into a jar tightly  
4. Wait several days and enjoy  
- Extremely nutritious and beneficial to health  
- Lactic acid bacteria are very beneficial to health (especially for intestines and digestion)  
- Intrinsically safe | Kimchi, sauerkraut,...Many vegetables can be fermented (less fruits)  
- Easy and interesting process (good for taste education)  
- Safe  
- Very healthy  
- May require special lids or weight to pack the vegetables tightly in a jar  
- The squeezing part can be a bit long: grating the vegetable instead of simply chopping them accelerates the process  
- Sometimes the taste may seem weird for those who don’t have the habit to eat fermented fruits and vegetables  
- Vegetables ferment for several days: a recipe-card must be given to participants for them to know what to do with their jar. |
Sterilization seems to be, nowadays, the most common method to preserve food. Nonetheless is doesn’t seem to be the most adapted for collaborative and festive cooking sessions because of its safety and hygiene issues and because it kills all the nutrients of food.

We want to avoid sugar preservation even if it is a safe and delicious way to preserve fruits and vegetables because it has no nutritional benefits and it can be harmful for the health.

We’ve also noticed that inside social residences people don’t really like jams and prefer savoury preparations.

Creating easy and educational recipes

Many participants are not very confident about their cooking skills and DISCO BÔCÔ aims at teaching new and original preservation techniques. This is why, during the feasibility study, we spent a lot of time testing recipes.

• Criteria to select recipes: they should be FUN, EASY, SAFE, EDUCATIONAL and DELICIOUS.

• The flavour of the final product is very important to avoid waste!
We have noticed that adding spices is a key moment in the realisation of the recipe. One or two people should do this key step because if different participants feel like spicing their preparations, the final product can be way too spicy and not so good. It is nice to have one cook-referent per recipe in charge of the spicing. It would be good too, to make little posters to advise people on the use of every available spice.

Here is a glimpse of a recipe-card.

At the end of the sessions, recipe-cards of every recipe made during the sessions are sent (via email or social network) to the participants so that they can reproduce them back home. These recipe-cards contain:
Each step of the recipes
- Expiration dates and maceration period
- Specific safety requirement
- A little story about the product (optional). For example: Korean people say that they resist better to avian flu thanks to the nutritional proprieties of Kimchi!

We created educational posters on specific culinary techniques for participants to understand the process and the benefits of the preparations they are cooking. Indeed, we’ve noticed that during the sessions, some participants don’t understand the exact process of the cooking session. That is why we think that simple posters could help. This task was done with the two agronomist-engineers we are working with.

The open-source toolkit contains several recipes, from very simple to original to empower anyone with useful culinary skills.

The agronomists have made a list of interesting and original ingredients both in terms of nutrients and texture; they can be used inside the DISCO BÔCÔ preparations:

<table>
<thead>
<tr>
<th>Fruit / Vegetables</th>
<th>Kg</th>
<th>Number of Bôcôs (324 ml jars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PINEAPPLE</td>
<td>5 kg</td>
<td>16 bôcôs</td>
</tr>
<tr>
<td>CARROTT</td>
<td>5 kg</td>
<td>18 bôcôs</td>
</tr>
<tr>
<td>SWEET PEPPER</td>
<td>4 kg</td>
<td>12 bôcôs</td>
</tr>
<tr>
<td>TOMATO</td>
<td>3 kg</td>
<td>13 bôcôs</td>
</tr>
<tr>
<td>PRUNE</td>
<td>4 kg</td>
<td>15 bôcôs</td>
</tr>
</tbody>
</table>

We established a rough estimation of the quantity of standard 324ml jars (bôcôs) that can be filled with a given quantity (kg) of fruits and vegetables. This table is not exact because it always depends on the texture of the fruits and vegetables, its maturity, etc. It helps to have a rough estimate: 1kg of fruits/vegetables = 3 or 4 bôcôs (324 ml jars).
Finding the most convenient cooking equipment

We worked with the two engineer-agronomists to define the most convenient and practical cooking materials.

General advice:
- All the material should be made of stainless steel to avoid bacterial contamination.
- Second hand jars are fine (except for sterilisation). However lids should always be new and bought by DISCO BÔCÔ because old ones may contain bacteria.
- Stainless steel kitchen utensils are used to replace plastic, old and sometimes rusty Disco Soupe materials.
- Use non-metallic lids for vinegar preparations.

For each step, some specific materials are required:
- **Sterilisation of jars**: Big stainless steel strainers are required as well as a stainless steel draining board to avoid any re-contamination of the jars and pliers. Thermometers and alarm clocks are also required.
- **Picking**: A big amount of stainless steel salad bowls are required to store the clean fruits and vegetables ready to be picked as well as the picked ones. Also: wooden chopping board, spoons, knives, zesters, slicers (mandolin), graters and juicers, weighing scales.
- **Cooking**: big electric stoves (because, for safety reasons, sessions are generally inside and gas cannot be used) and adapted cooking pots, stainless steel utensils.
- **Pouring the preparation into the jars**: specific stainless steel funnels.

To practice some specific preservation techniques or recipes, other materials are required:
- **Soups, Compotes, Vegetable purées**: blender
- **Smoked vegetables**: Wok, grill, pressure cooker, smokehouse
- **Jams**: Refractometer, pHmeter, copper cauldron
- **Lacto-fermented fruits and vegetables**: special lids and crocks for the weight, strainer
- **Sterilised preparations**: Sterilizer, new jars, rubber lids
- **Vacuum packaged fruits and vegetables**: Air vacuum machine
- **Dehydrated fruits and vegetables**: Dehydrator

We bought the specific materials required for optimal (in terms of hygiene and logistics) organizations of DISCO BÔCÔ sessions thanks to FUSIONS budget. Equipment has been bought in January 2015 when we were able to know very precisely the type of material we needed. Before, equipment has been lent by the Disco Soupe community.

4.3.6 Ensuring food safety and hygiene issues are addressed

Preserving fruits and vegetables requires being very vigilant during the whole cooking session. Some practices such as sterilisations are more dangerous than others and the
feasibility study helped us understand the safety issues for each kind of process (see part 4.5).

Respect of hygiene is a key success factor not only because of the real food safety risks of not taking the right actions but also for the image and reputation of DISCO BÔCÔ.

We worked with two agronomists from AgroParisTech on the hygiene issues. They assisted various DISCO BÔCÔ sessions and sent us advice and comments for each step.

They also took pictures to make us aware of a few problems in the hygiene process, that we’ve corrected:

```
" NO GLOVES ! Are you sure participants washed carefully their hands?
Pouring the preparations into the jars is a key step, with high hygiene requirements. Need to be very vigilent on the hygiene of the participants doing this."
```

Their work helped us a lot to design the DISCO BÔCÔ session in order to respect these essential hygiene criteria. They advised us to standardise every step of the cooking session (see toolkit).

We can note that no cases of contamination or off-smell, texture, taste or colour have been reported.

**Basic Hygiene Practices**

DISCO BÔCÔ applies a number of basic hygiene rules and implements some HACCP-based principles:

- **Traceability of the vegetables/fruit fetched**
  - Jot down provider details, food quantity fetched, if available jot food origin certificate.

- **Transport & Storing**
  - Never store veggies/fruits on the floor (even if stored in a box). Use a pallet/table.

---

14 Hazard Analysis Critical Control Point
• DISCO BÔCÔ Installation
  o Clear separation between the storing area and the cleaning area.
  o Rule of Thumb: To prepare 20kg of vegetables, need for 15 sq. Meters.

• Vegetables/Fruits Cleaning
  o For each item, which will be consumed raw, soak, it 10 minutes in a basin with 20l water and 1l white vinegar.
  o No need to wash fruits/veggies with large rind/skin (e.g. orange, avocado...)
  o Do not mix cleaned and non-cleaned items.

• Hygiene Rules during the event
  o Have self-explanatory eye-catching boards (Enclosed is an example shown in a Disco Soupe in France) explaining basic rules to participants, e.g.:
  o Tie hair back, Wash hands, Wear gloves.
  o Strict separation of raw and processed product to avoid contamination of any kind (the principle of the walking forward logic).

• Cooking Material
  o Each item (pot, chopping boards...) must have been cleaned (hot water + soap) before use.
  o Store material in slipcovers.
  o Material should never touch the ground.

Before each Disco Soupe, organizer must be given:
  • A revision note about hygiene standards and rules.
  • A revision note/board about hygiene to be shown to the participants.
  • N.b : DISCO BÔCÔ only cooks fruits and vegetables (and sometimes cereals and legumes) and therefore avoids safety issues linked to the preparation of meat or dairy products.

Specific Hygiene Practices during DISCO BÔCÔ sessions:
  • Here are some key advice (detailed in the open source toolkit) that we determine along with the agronomists:

Before the participants arrive:
  • Clean up the entire space (tables, floor, walls) as well as the cooking materials.
  • All cooking materials should be made of stainless steel to avoid contaminations (vs. Wood or plastic) (see section 4.5.3).
  • Clean and sterilise the jars (see below).
  • Install the cooking materials on the tables and as many bins as possible with a distinction between compost and others to avoid dirty and inedible food remaining on the tables.
During the sterilisation of the jars and lids: control the temperature and the timing in order to sterilize them at least 10 minutes in boiling water.
- Use a stainless steel strainers and draining boards in order to avoid any recontamination of the jars and lids.
- Second hand jars are fine (except for sterilisation). However lids should always be new and bought by DISCO BÔCÔ because old ones may contain bacteria.

When participants arrive they should: clean and disinfect their hands, tie their hair up, take off their jewels, wear a clean apron (participants can be asked to bring their own apron).
A table dedicated specifically to the good hygiene of every participant with posters on hygiene requirements (see image), gloves and disinfecting product have to be installed during each session.
There should also be a hygiene referent responsible for the respect of the hygiene issues.

1 : Tie hair back, 2. Wash your hands, 3. Put gloves on, 4. Chose your knife

During the picking session:
- Never use the same bowl for raw fruits and vegetables and for cooked ones: it may contaminate them. Wash the bowl or use another clean one!
- During the session, try to wash several times the tables as well as the floor

When cooking the preparations, be sure to respect the safety advices linked to specific kinds of culinary techniques (see 4.5.1). For example, a refractometer should be used for jams to determine the % of sugar in order to be sure it will be safely preserved.

When participants pour the preparations into the jars, be sure that they wash their hands again before doing it and that they don’t put their fingers into the sterilised jars while pouring the preparations inside it.
Jars are closed with adapted lids and turned upside down to sterilise the lid.

Participants write the name of the recipe and the composition of the product on the labels.
Labels are printed beforehand with the expiration dates (we have noticed that when participants do this on their own, some labels may have wrong expiration dates. It is too important an issue to accept errors: labels have different colours according to the expiration date they have.)
For example:
- a jam (with the right level of sugar) should be consumed within 4 months after the creation,
- A chutney (with the right level of acidity) should be kept in the fridge and consumed within 2 months after the creation,
A non-sterilised compote should be kept in the fridge and consumed within 3 days after the fabrication.

N.b : these expiration dates have been fixed with great precaution (jams or chutneys can normally be eaten during a longer time). It may seem contrary to fighting against food waste; nonetheless safety issues are as important and we don’t want to take any hygiene risks. As a matter of fact, we’ve noticed that participants do eat their bôcô quite quickly because they don’t get to bring more than 4 back home.

After the session, recipe-cards reminding expiration dates and hygiene advices are sent to participants (see part 4.5.1).

It is important to empower participants with the whole process and train them on the hygiene issues in order to have various persons responsible for the safety dimension of the sessions. Some educational posters concerning hygiene are pinned up during the session in order to let everyone know about this issue.

Legal framework
DISCO BÔCÔ sessions have to respect the national regulation “Reglement (CE) 178/2002 (articles 1 and 14)”\(^ {15}\)

These articles detail the organisational procedures to apply in order to insure food safety during each stage of production, transformation and distribution of edible goods.

Adequate information for the consumers must be provided, especially on labels.

For more details : see toolkit and references\(^ {16}\).

4.3.7 Ensuring financial sustainability

During the feasibility study, we analysed various economic models of food waste entrepreneurs in order to understand what would be a way to make DISCO BÔCÔ sustainable, from an economic perspective. This is why we travelled in France to visit many initiatives and why we have created the “empoteurs” community (see part 3.3.3).

DISCO BÔCÔ is a now a grassroots’ open-source project and, like Disco Soupe, its dispersal can depend only on volunteer commitment and energy. The work done during the feasibility study as well as the detailed open-source toolkit (with specific hygiene requirements as well as detailed culinary techniques) allowed launching a model that can now live its own life.

Nonetheless, it has been very instructive to imagine and test different possible developments for DISCO BÔCÔ.

DISCO BÔCÔ worked closely with Colette Rapp, a social entrepreneur working on the Re-belle project aiming at selling jams using discarded fruits and vegetables: we have spent time working on economic models and complementarities between her economic approach and DISCO BÔCÔ’s approach.

It is also interesting to adopt a holistic dynamic, with a “robin hood approach”, that is to say charging some organisations that

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\(^ {16}\) [http://www.ladocumentationfrancaise.fr/catalogue/9782110747341](http://www.ladocumentationfrancaise.fr/catalogue/9782110747341)

want to organise DISCO BÔCÔ sessions in order to help fund free-of-charge other events for underprivileged people. For example: charging a firm for a team building DISCO BÔCÔ sessions and investing the money in the organization of a session with homeless people.

We have tested various ways of earning income through different types of activities linked to DISCO BÔCÔ, discussed below.

**Organising small charged culinary workshops teaching specific preservation techniques - already tested!**

We have noticed that during the DISCO BÔCÔ sessions, participants are very happy to learn new culinary techniques and to understand the nutritional benefits of the ingredients.

Nonetheless, there is often not enough time and the sessions are always a bit too hectic to enter deeply into these subjects. Small culinary workshops offer privileged moments where participants can interact with a preservation expert and learn specific techniques by doing it themselves with reference to technical explanations.

Charged culinary workshops could help finance free of charge culinary workshops for people in need (This idea is inspired by the UK project [Made in Hackney Local Food Kitchen](https://www.madeinhackney.org.uk/)).

It seems that today, fermentation techniques are fashionable: there may be a market opportunity (no culinary workshop on this specific topic do exist in Paris).

Marine Lafon has already organised some culinary workshops charging 35 euros per participant.

**Organising charged team-building DISCO BÔCÔ sessions - already tested!**

We have tested this idea twice: for the Nature&Découvertes Foundation (2nd of April 2014) and during the Food Assembly Annual meeting (see 2.2). We adapted the DISCO BÔCÔ format to their specific requirements.

We charged these foundation and firm and paid one or two organizers (self-employed). Colette Rapp earned 500 euros during the Food Assembly meeting and Margaux Pibarot (another Disco Soupe member) and Marine Lafon earned 500 euros each with the Foundation.

We have noticed that this is not the best way to generate an income because DISCO BÔCÔ format is based on co-creation, on a people-led and open dynamic. We try to empower every participant that should feel autonomous and responsible during the session. Nonetheless, this economic contractual relation and the role of service provider breaks this dynamic where everyone feels responsible for the good organisation and vibration of the event and doesn’t generate the same energy.

Besides, the Disco Soupe spirit is based on free of charge events. Disco Soupe community allowed us to organise these charged events to test this format; however it is not in the disco spirit.
**Selling transformed product** - already tested with Re-belle!
To be able to sell transformed and preserved fruits and vegetables, it is highly important to respect the hygiene conditions for commercialisation. Disco Bôcô cannot match these hygiene conditions because it organises festive and convivial sessions with many people. However, other projects close to Disco Bôcô can because they cook in specialised kitchens with limited numbers of people trained to respect the hygiene requirements.

- **Jams and chutneys**: Re-belle punctually sells its jams (mainly during events). We have noticed that the standardisation of the production is going to be a major work because for the moment the ratio: time spent making jams / income from the jams is not very convincing. Indeed, transforming discarded fruits and vegetables includes collecting them in unusual circuits (more logistics) and sorting them out. As a matter of fact, few projects selling jams or chutneys made from discarded fruits and vegetables have sustainable economic models. We’ve noticed that the quality of fruits and vegetables has a great impact on the quality of the final product.

- **Soups**: Within The Food Assembly, an interesting project is being built. After a DISCO BÔCÔ session, The Food Assembly leader decided to transform the farmers’ unsold fruits and vegetables into soups and sell them directly in The Food Assembly’s pop-up markets. The fruits and vegetables are transformed by a professional firm employing people in need ([La Table de Cana](#)) and the pop-up markets allow to quickly meet the demand. As a matter of fact, we imagined, along with a social residence, transformation sessions inside the kitchen (HACCP norms). Some small groups of residents could earn a complementary income by selling their preparations on markets.

  n.b : transforming products that are going to be sold require much more rigorous hygiene processes than for DISCO BÔCÔ sessions. Elaboration of products has to take place in kitchens conforming to regulation.

- **Dehydrated fruits and vegetable or dehydrated fruit powders**: Dehydration is a very interesting method because it doesn’t require so many transformation processes. In sunny regions, it can be practiced at very low costs. In cold regions, it requires specific expensive equipments and is quite energy intensive. There is an increase in the consumption of dehydrated fruits and vegetable because of the healthy food trend. Dehydratation require good quality unsold fruits and vegetables.

- **Prepared and chopped fruits and vegetables**: We have noticed that the majority of restaurants in Paris or Bistrot don’t prepare their fruits and vegetables and receive big packs of already peeled and chopped freezed fruits and vegetables. That could be an interesting market and a way to give a second life to discarded products. It requires very simple processes that could be adapted for an enterprise devoted to social inclusion.

**Free pricing** - already tested!
We have noticed that many participants want to pay for their Bôcô : during the last events we installed a free pricing box. The amounts vary a lot and can sometimes reimburse the costs linked to the organisation.
Many community kitchens charge their participants with the net cost of jars, food or spices. That could be also developed during the sessions in order to cover our costs.

**Answer to call for projects** If DISCO BÔCÔ aims at staying a non-profit project, answering call for projects could help develop other dimensions that could nourish DISCO BÔCÔ. For example, developing the gleaning & preserving sessions. Marine Lafon is working with some teacher-researchers on that topic. Nonetheless, these projects are quite ambitious and cannot be held only on volunteer hours.
5 Overview of the toolkit

The end of DISCO BÔCÔ’s feasibility study is to facilitate the dissemination and the replication of the format. The replication of social innovations is also part of FUSIONS’ overall objectives. Various methods of dissemination are being employed.

5.1 The Open-source toolkit

5.1.1 What is an open-source toolkit?

An open-source toolkit promotes a universal access via a free license to a free toolkit that can be improved by anyone.

Like Disco Soupe, DISCO BÔCÔ wants to spread an open format: any citizen should be able to organize their own DISCO BÔCÔ session. It is a way to empower people with the possibility of organizing their own convivial cooking sessions in a completely autonomous way. In that way, Disco Soupe and DISCO BÔCÔ are part of the “Hacker Ethic” movement defined by Pekka Himanen\(^\text{17}\) as something like a “cyber communitarism”.

According to Himanen, the three main features of hacker ethic are:

- enthusiastic, passionate attitude to the work that is enjoyed
- creativity, wish to realise oneself and one's ability, often in teams that are formed spontaneously (project orientation)
- wish to share one's skills with a community having common goals, along with the need to acquire recognition from one's "tribe"; one is motivated by inner zeal rather than external awards: the fruits of one's work are donated to everybody for their advances and further developments

\(^{17}\) The Hacker Ethic and the Spirit of the Information Age, Pekka Himanen, 2001
Disco Soupe wrote its first open-source toolkit two years ago and, since then, it has greatly evolved because it is often updated. **Open-source toolkits are living tools:** they evolve and transform themselves in relation to the people using them and nourishing them with best practices and feedbacks. This is why open-source toolkits rely on enthusiastic and passionate communities of “Hackers Ethic” that can feed the toolkit with their own experiences of the format.

Nonetheless, open source can imply distortions of the initial spirit and messages of the movement. That is why Disco Soupe drew up a list of 10 “commandments”; a sort of charter that fixes the spirit of the movement that has to be respected if any group of individuals wants to call their event “Disco Soupe” (see image).

It contains, for example, the fact that events should always be opened to anyone, that the meals should be distributed for free (or free pricing), that no logos should appear on the events and no affiliation to any political or religious group should exist.

This charter aims at preventing the movement from any misrepresentations. DISCO BÔCÔ adopted these same “commandments”.

### 5.1.2 Writing the open-source toolkit

The DISCO BÔCÔ open-source toolkit has been written thanks to the lessons learned during the one-year feasibility study. The DISCO BÔCÔ toolkit is written in French and in English in order to spread it widely.

It includes:
- Beforehand Logistics (collecting fruits and vegetables, gathering cooking material, spotting a place to organise the event, communicating about the event, etc.),
- Description of each step of the cooking session and recommendations,
- How to raise awareness on food waste,
- How to raise awareness on healthy nutrition,
- Recipes and preservation techniques,
- Hygiene recommendations,
- How to connect with other grassroots network and increase the community.

### 5.1.3 Distributing the open-source toolkit

The open source toolkit is mainly spread via social networks and [Disco Soupe’s website](http://disco-soupe.org). DISCO BÔCÔ relies on its network of multidisciplinary partners and other grassroot organisations to spread its format (see parts 4.2 and 4.3).
6. Conclusion

SWOT : how scaleable or replicable is DISCO BÔCÔ?

During the one-year feasibility study, 20 Disco Bôcô sessions have been organised. They diverted 825 kg of unsold fruits and vegetables from waste into nutritional food for communities. These figures are quite encouraging and show strong potential for replication. This is why this report, as well as the toolkit, highlights applicable guidance points for setting up other similar projects in different countries.

Disco Bôcô can, indeed, be replicated in various places around Europe given that the required key organizational elements are universal (sources of food waste, cooking materials and jars, participants eager to cook and to have fun, musicians). Besides, the toolkit makes the Disco Bôcô events easy to organise. Nonetheless, the hygiene and cooking processes for preservation of fruits and vegetables demand high vigilance: this could restrain the dissemination of the project. This is why the toolkit tries to be as clear and educational as possible.

The feasibility study also validated the social impact of the project and allows us to conclude that fighting against food waste can be a way to generate social innovation and fight against social isolation, malnutrition and economic insecurity.

<table>
<thead>
<tr>
<th><strong>STRENGTHS</strong></th>
<th><strong>WEAKNESSES</strong></th>
</tr>
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<tbody>
<tr>
<td>- Easy to organise, fun, festive and convivial</td>
<td>- Strict hygiene requirements (higher than for Disco Soupe)</td>
</tr>
<tr>
<td>- The format can be easily adapted to different contexts</td>
<td>- The format is still not so well known in France</td>
</tr>
<tr>
<td>- Various cities already organised a DISCO BÔCÔ session</td>
<td></td>
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<tr>
<td>- Multidisciplinary network of partners and support of various grassroots movement</td>
<td></td>
</tr>
<tr>
<td>- Detailed open source toolkit</td>
<td></td>
</tr>
<tr>
<td>- One-year feasibility study</td>
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<thead>
<tr>
<th><strong>OPPORTUNITIES</strong></th>
<th><strong>THREATS</strong></th>
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<tbody>
<tr>
<td>- Disco Soupe is widely well known and this fact represents and opportunity to disseminate Disco Bôcô</td>
<td>- People may not feel confident enough to organise their own DISCO BÔCÔ session</td>
</tr>
<tr>
<td>- Various Disco Soupe organization exist in Europe : they can be very useful in Disco Bôcô replication an easy way</td>
<td>- Risk of hygiene incidents that could undermine the reputation of Disco Bôcô</td>
</tr>
<tr>
<td>- Various social residences and famous organisations are interested in DISCO BÔCÔ</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX 1 – Detailed results of the 20 events

The details of the events integrate the different dimensions of part 3.1 with the same classifications and the following colours:

- Type of public
- Source of food waste
- Main objective
- Location

1. 15th of December 2013 in Le Palais de la Femme social residence

- Underprivileged people
- Supermarket
- Awareness on food waste
- Paris – charitable organisation

* 10 participants:
  - 9 underprivileged immigrant women
  - One 9 year-old child

* 24 volunteer hours
  3 volunteers: 10hx2 + 4h volunteer hours

* 20kg collected: mainly strawberries and bananas

* 40 jars produced: 15 strawberry jam, 25 bananadas
  (Brazilian recipe from Brazilian resident)
2. 16th of February 2014 in Armée du Salut social residence

Underprivileged people
Supermarket
Social cohesion
Paris – charitable organisation

* 27 participants:
  - 10 underprivileged immigrant women living in the social residence
  - 8 children living in the social residence (from 2 to 14 years-old)
  - 7 volunteers
  - 2 social workers

* 38 volunteer hours
  7 volunteers: 10hx1 + 8hx1 + 4hx5

* 25kg collected

* 53 jars produced
  - 22 apple and ginger compote
  - 31 pears and banana compote

3. 2nd of March 2014 in DISCO CAMPUS

Disco Soupe community
Supermarkets
Social cohesion
Paris

* 25 participants:
  - Disco Soupe members

* 38 volunteer hours

* 20kg collected

* 52 jars produced
  - 23 orange marmalade
  - 29 banana, cinnamon and coconut milk compote
4. 15th of March 2014 in Le Palais de la Femme social residence

Underprivileged people
Organic supermarket
Social cohesion
Paris – charitable organisation

* 15 participants:
  - 5 immigrant women
  - 5 children living in the social residence
  - 4 volunteers
  - 1 social worker

* 34 volunteer hours
  4 volunteers: 10hx3 + 4hx1

* 20kg collected

* 43 jars produced
  - 16 tomatoes and chilli jam
  - 13 carrot, ginger and mango jam
  - 14 apple, pear and cinnamon compote

5. 18th of March 2014 in AURORE social centre

Underprivileged people
Supermarket
Social cohesion
Montreuil – charitable organisation

* 22 participants:
  - 9 young unemployed immigrant youngsters
  - 4 immigrant women, 3 children
  - 2 social workers
  - 4 volunteers

* 34 volunteer hours
  4 volunteers: 10hx3 + 4hx1

* 20kg collected

* 42 jars produced
  - 17 strawberry jam
  - 18 banana, coconut and clove compote
  - 13 apple, pear and cinnamon compote
6. 2nd of April 2014 in Nature & Découvertes (giftware shops focused on natural products)

- **Employees**
- **Supermarket**
- **Social cohesion**
- **Toussus-le-Noble – headquarter of the foundation**

* **10 participants:**
  Employees of Nature & Découvertes

* **20 volunteer hours**
  2 volunteers: 10hx2

* **22 kg collected**

* **39 jars produced**
  -16 Aleppo pepper/ cardamom preserved orange and lemon (New way to preserve discarded fruits and vegetables!)
  -23 apple + citrus zest compote

7. 16th of April: DISCO BÔCÔ for the kids! in Le Palais de la Femme

- **Underprivileged kids**
- **Organic market**
- **Awareness on food waste**
- **Paris - charitable organisation**

* **9 participants:**
  Children from the social residence

* **20 volunteer hours**
  2 volunteers: 10hx2

* **11 kg collected**

* **15 jars produced**
  -10 orange curd
  -7 banana and vanilla compote
8. **7th of May in OuiShare Fest**

Participants of the festival (young adults working in collaborative economy)

- **Organic supermarket**
- **Awareness on food waste**
- **Paris – collaborative economy festival**

* **35 participants**:
  mainly young adults participating in the festival

* **38 volunteer hours**
  5 volunteers: 10hx3 + 4hx1 + 4hx1

* **24kg collected**

* **37 jars produced**
  - 14 banana compotes
  - 15 strawberry and vanilla jam
  - 8 tomatoe and sweet pepper jam

9. **19th of June at Foyer Notre Dame des Sans Abris**

- **Homeless people**
- **Markets**
- **Social cohesion**
- **Lyon – charitable organisation for homeless persons**

* **18 participants**

* **23 volunteer hours**
  3 volunteers: 11hx1 + 6hx1 + 6hx1

* **14kg collected**

* **17 jars produced**
10. 5th of July DISCO BÔÇÔ in Comptoir Général – Ruche Qui Dit Oui

Consumers of a community supported agriculture network
Local farmers
Social links between urbans and farmers
Paris – Distribution of local products of La Ruche Qui Dit Oui!

* 70 participants:
  Families, average age: 35-40 years-old

* 38 volunteer hours
  4 volunteers: 10hx3 + 8hx1

* 100 kg collected
  100% organic

* 116 jars produced
  - 38 prune and cinnamon compote
  - 18 strawberry, tomatoe, cardamome jam
  - 23 sweet pepper jam
  - 37 Indian chutney

During the session, a jam specialist gave advice to participants and cooked with them.
11. 21st of September 2014 - La Grande Migration/La Ruche Qui Dit Oui !

Employees of a community supported agriculture network
Local farmers, organic markets
Food waste awareness
Le Mans – National gathering of all the branches of La Ruche Qui Dit Oui network

* 80 participants :
* 52 volunteer hours
  5 volunteers : 15hx2+10hx1+6hx2
+ 1 paid organiser
* 75 kg collected
  100% organic

* 97 jars produced
  - 27 indian chutney (tomatoe, sweet pepper, aubergine)
  - 24 peach and vanilla jam
  - 29 autumn chutney (prune, figs, peach)
  - 17 vegetable pickles (carrot, coliflour, turnip)

12. 30th of September – DISCO BÔCÔ Lôcô

Neighbourhood inhabitants
Local farmers, organic markets
Food waste awareness
Paris – in a public space

* 60 participants
* 32 volunteer hours
  5 volunteers : 15hx2+6hx2+5hx1
* 60 kg collected
  100% organic

* 78 jars produced
  - 37 vegetable pickles
  - 24 peach and vanilla jam
  - 29 autumn chutney (prune, figs, peach)
  - 17 vegetable pickles (carrot, coliflour, turnip)
13. 18th of Octobre - La Cantine du Midi

- Neighbourhood inhabitants
- Markets
- Food waste awareness
- Marseille – in a restaurant

* 29 participants

* 21 volunteer hours
  4 volunteers: 10hx2+6hx2+5hx1

* 50 kg collected

* 62 jars produced
  - 18 Tomato sauce
  - 15 Ratatouille
  - 13 Pear and apple compote
  - 17 Kiwi and pineapple jam

14. 23rd of October - Notre Dame des Sans Abris social residence

- Homeless people
- Markets
- Social cohesion
- Lyon – charitable organisation for homeless persons

* 15 participants

* 16 volunteer hours
  2 volunteers: 10hx1+6hx1

* 25 kg collected

* 25 jars produced
  - 11 Apple, pear and cinnamon compote
  - 6 orange and cardamome jam
  - 8 pineapple and vanilla jam
15. 14th of October - La Cantine

Inhabitants of a neighborhood
Markets
Food waste
Reims – in a restaurant

* 15 participants

* 19 volunteer hours
  2 volunteers : 15hx1+4hx1

* 47 kg collected

* 45 jars produced
  -13 Carrot puree
  -12 ratatouille
  -8 tomato sauce
  -12 apple and carrot compote

16. 1st of November - La Trockette

Inhabitants of a neighborhood
Organic supermarkets
Social cohesion
Paris – in a café

* 65 participants

* 30 volunteer hours
  2 volunteers : 15hx2

* 127 kg collected

* 105 jars produced
  -20 Kimchi (carrot, cabbage, apple and ginger)
  -19 quince, pear and cardamome compote
  -22 vegetable pickles (beetroots, carrot, celeriac)
  -21 cucumber and dill pickles
  -23 tomatoe indian chutney
17. 16th of November - La Ruche Qui Dit Oui!

Consumers of a community supported agriculture network
Local farmers
Social links between urbans and farmers + consumers
Tours – in a restaurant

* 40 participants

* 30h volunteer hours
  2 volunteers : 15hx2

* 65 kg collected

* 75 jars produced
  - 20 vegetable pickles
  - 19 apple, pear and cinamon compote
  - 17 ratatouille
  - 19 grape jam

18. 30th of November - Equitable Café

Neighbourhood inhabitants
Organic Markets
Food waste awareness
Marseille – in a café

* 31 participants

* 28 volunteer hours
  3 volunteers: 12hx2+4hx1

* 50 kg collected

* 62 jars produced
  - 22 ‘Christmas jams’: pineapple, orange and ginger
  - 20 Indian chutneys (tomatoes, eggplant)
  - 20 Pear and apple compote
19. 10th of December - La Ruche Qui Dit Oui!

Consumers of a community supported agriculture network
Local farmers
Social links between urban consumers and farmers
Saint Maur

* 20 participants
* 34 volunteer hours
  3 volunteers: 15hx2 + 4hx1
* 25 kg collected
* 52 jars produced
  -12 vegetable purée
  -13 orange, grapefruit e and cardamom jam
  -16 apple, pear and cinnamon compote
  -21 pumpkin, orange and cinnamon compote

20. 6th of December - Dar La Mifa

Neighbourhood inhabitants
Organic Markets
Food waste awareness
Marseille – in a café

* 31 participants
* 28 volunteer hours
  3 volunteers: 12hx2+4hx1
* 25 kg collected
* 56 jars produced
  -22 orange jam
  -20 carrot and ginger puree
  -14 cardamoms, pear and Honey compote
APPENDIX 2: Adapt the recipes to the local context

To ensure DISCO BÔCÔ’s replication, it is important to adapt the recipes to the local context.
For example, even though jams are consumed daily by the majority of French people, they can be too sweet for many foreigners who don’t have the habit of eating them. Adapting the recipes to the local context is highly important to avoid any food waste of the DISCO BÔCÔs and to be sure that they are going to be eaten by the participants.
When we organised DISCO BÔCÔ session inside social residences with immigrant people coming from various countries, we realised that most of them didn’t appreciate the jams: more savoury preparations were much more welcomed.

Many different kinds of preparations can be poured into jars and thousands of local recipes can be imagined. For example:
- In the Mediterranean region, it is common to marinate vegetables (e.g. red sweet peppers marinated in olive oil and salt) or mash vegetables into savoury dips (e.g. roasted eggplant caviar),
- In Asia, pickling (e.g. sweet and sour cucumber pickles) is widespread, and Kimchi (fermented vegetables in their own juice) is the Korean national dish,
- In India, vegetable curries are commonly eaten,
- In Malaysia as well as in Guadeloupe, achard (hot and spicy marinated vegetables in vinegar) is one of the national dishes,
- In England chutneys are commonly eaten, etc.
APPENDIX 3 : THE TOOLKIT
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