



Surplus Food Redistribution System

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Feasibility Final Report

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Reducing food waste through social innovation

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Summary

The main objective of the WP4 Surplus Food Feasibility Study was to minimize food waste through redistributing surplus food in a socially responsible way. The original idea was to accomplish this by the creation of an IT platform that connects the retail industry and other stakeholders, who daily produce surplus food, with homeless shelters and other organisations who are daily in need of food.

Within the timescales of the feasibility study, an IT platform was developed in test, but at the time of this report it was yet to be put into practice on a bigger scale with a supermarket donating the food and recipient charities. This delay was caused by a number of unforeseen barriers including lack of funding, VAT on food donations and food safety legislation in Denmark. Despite the IT platform not being tested on a bigger scale with a supermarket, a number of valuable lessons were learnt in developing this project.

This report is a feasibility study that summarises the process of developing a project like this, creating awareness around the project along with setting the team, and mapping and creating a network of stakeholders interested in participation in the project.

Furthermore, it provides an overview of the results of the project along with the risks and barriers that have followed with development and implementation. Lastly, it contains guidance lessons learned for setting up a similar project, which is based on the conclusions and learnings of this particular project.

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1 Introduction

1.1 Aims of the feasibility study

- Initially the aim of the feasibility study was to test how it is possible to set up an internet- and SMS-based system in Denmark that connects organisations – like home shelters and women homes - with the providers of surplus food (supermarkets) and, thereby, decrease the overall amount of food waste. The idea and concept was that a free online system would connect local food producers, retailers, restaurants, catering companies with local shelters and crisis and refugee centres. However, a few months into the project, it became apparent that the SMS element might not be possible within the scope and timescales of this project. The name of the information system in Danish is “*Overskudsmad*”, or “Surplus Food” in English.
- Another element of the feasibility study was to provide recommendations on the replication of the project (i.e. advice and guidance on rolling out similar projects in other cities in Denmark or in other countries).

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 a 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.

1.2.1 Selection of Surplus Food Redistribution Feasibility Study

This Surplus Food Redistribution feasibility study was developed as an idea and submitted in 2013 for consideration by a panel comprising WP4 core partners¹ under the

¹ For information on the selection process please go to:
<http://www.eu-fusions.org/uploads/deliverables/WP4%20report%20Jan%202014.pdf>

EU Fusions project. The feasibility study 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. After the proposal was selected in 2013 and the final budget confirmed, the work on the feasibility study started in late 2013. The Surplus Food Redistribution feasibility study is one of seven projects implemented in the period from August 2014 to August 2015.

More information on the FUSIONS WP4 feasibility studies here: www.eu-fusions.org/social-innovations

1.2.2 Aim of this Report

This report provides a description, an analysis, and an overview of the outcome of the Surplus Food Redistribution feasibility study. By presenting the barriers, results, and learnings of the project, the report aims to form a basis of guidance for replication of the project in a different setting or different geographical area.

2 Background and Approach

2.1 Background on the feasibility study concept and principles

The Danish food sector creates more than 303,000 tonnes of food waste each year. Often the reason for this food waste is due to damaged packaging (or other things such as mislabelling and incorrect estimate of sales forecast) – factors that have no influence on the quality of the food, but which means that the food products cannot be sold. Instead of throwing this surplus food out, it could be utilized by people in need.

At present there is a lack of knowledge on how to establish a dialogue between donors and those needing the surplus food in Denmark. The objective of the Surplus Food Redistribution System is to improve this dialogue and make the food donation easier, therefore increasing the amount of surplus food being redistributed rather than being thrown away.

Today the communication between food donors and recipient charities are not systematised on a higher level in Denmark. A few local Danish supermarkets have established one-on-one relationships with local charities – but the donation of surplus food is mostly happening on an ad hoc basis.

A few years ago Fødevarerbanken – The Food Bank – was established in Denmark. This organisation is based on a system where the participants pay a fee to be part of the bank and The Food Bank is in charge of distributing the surplus food. The Food Bank is primarily based in Copenhagen and has struggled to get its business model operating on a bigger scale in Denmark.

As the amount of surplus food is increasing, the hope is that a surplus food information exchange system would facilitate a quick scaling-up of food-donation as it would not rely on establishing one-on-one relationships - as in the case mentioned above with The Food Bank – but it would only need a rather small organisation to secure a well-functioning system throughout Denmark.

2.1.1 Project Objectives

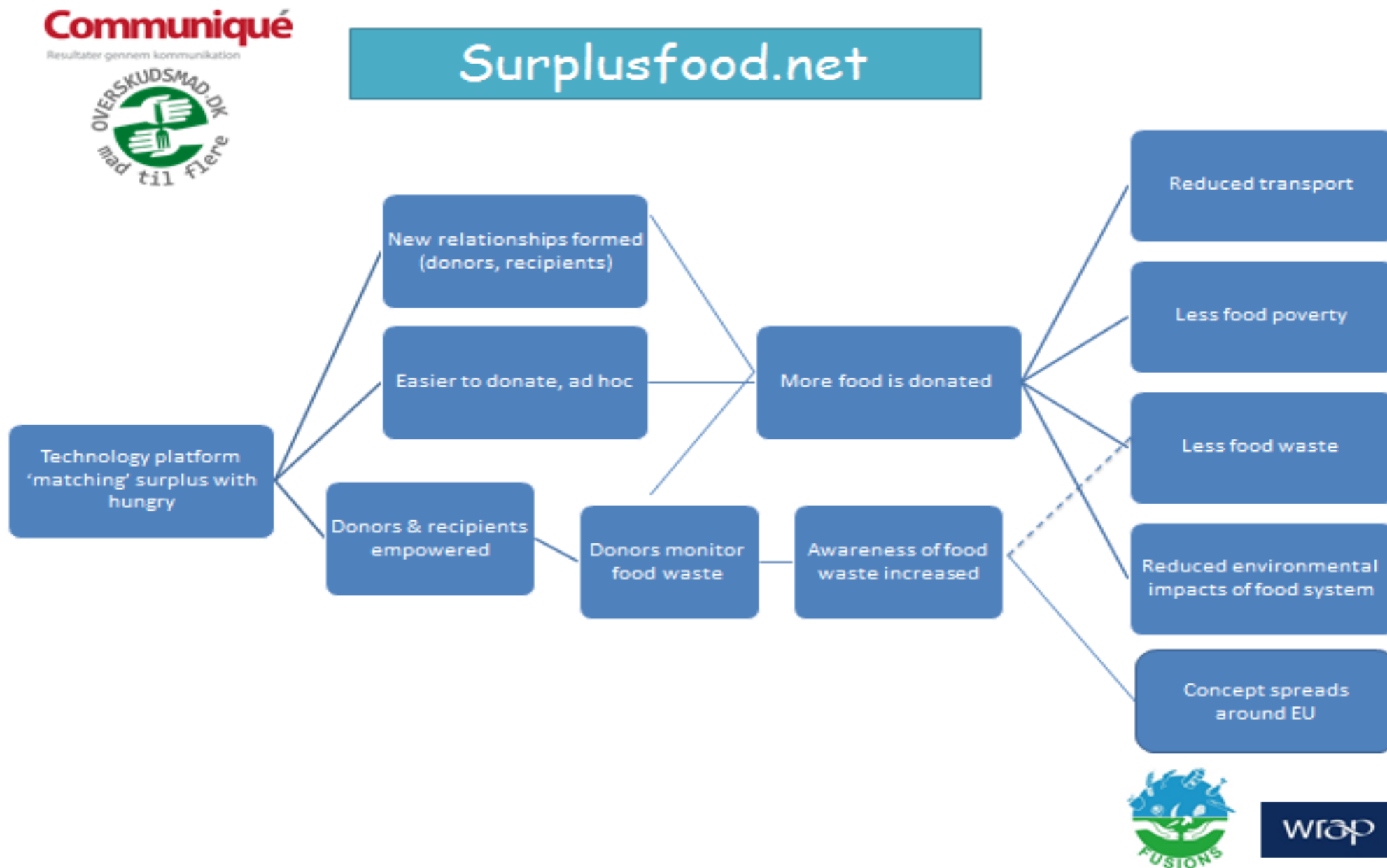
The objective of the Surplus Food Redistribution project is to develop an IT system, which connects supermarkets and other organisations that have surplus food on a daily basis with the local organisations and homeless shelters. The system is named "Overskudsmad" or "Surplus Food" in English. This means that food, that would otherwise have been wasted, will instead be given to people in need. The aim is to create a simple system where e.g. supermarkets register their daily surplus food, and local

organisations receive an email with information about the available food, which they can then collect at an agreed time.

2.1.2 Project Benefits

The main benefit of this project is to decrease the amount of food waste and reduce food poverty for people in need; however, the system will incorporate a number of environmental and social benefits, all of which can be seen in Figure 1 below.

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



2.1.3 Stakeholders

Surplus Food Redistribution targets two main stakeholders: Supermarkets and other potential donating organisations along with homeless shelters and other potential recipient organisations. Therefore, it is essential to the project that participation in the system is made to look simple and attractive to the two different types of stakeholders.

To secure the success of the system, it is also important to include the stakeholders and their expertise and opinions in the development of the system, not only in the testing phase but also within the initial planning stages.

The key stakeholders included in this project:

Communique (Communications agency)

Communique is a Danish company specialising in communications consultancy. Communique is the overall project manager on the project Surplus Food Redistribution: Participants are Partner & Communications advisor Frans Grandjean, Partner and CEO Michael Buksti, and Project Assistant Sidsel Møller Christensen.

Stop Wasting Food

A non-profit movement aimed at reducing food waste among consumers. Selina Juul, founder of Stop Wasting Food, has the role of ensuring relation to food donors and stakeholder. In December 2014, founder and former CEO of Fødevarerbanken (Food Bank) Thomas Fremming joined Stop Wasting Food and was asked to join the project as a Pro Bono Interim Project manager.

Net-Ressourcer

An independent software development house and IT integrator based in Copenhagen, who are specialised in developing CMS solutions, online orderings systems for restaurants, and booking systems for public transportation. Throughout the project, they have been in charge of developing the web portal /IT system.

FVST (Foedevarestyrelsen)

The Danish Veterinary and Food Administration is responsible for ensuring food businesses comply with the food legislation in order to produce and sell safe food, and as such they have been consulted throughout the project.

DSK (De Samvirkende Købmænd)

Federation of Grocery Retail Chains represents 1,250 merchant-owned supermarkets, discount stores, and convenience stores. DSK is a strong partner on best practice on food handling and food safety for food donations. It has been a front-runner in lobbying for clearer guidelines on food donations from the grocery retail stores, for surplus food donations to be free of VAT, and the laborious laws on registration to be relaxed.

Ernst & Young P/S

Ernst & Young (known as **EY**) is a multinational professional service and consulting firm. Throughout the project, VAT Manager and Indirect Tax specialist John Holm Andreasen has provided an in-depth understanding of VAT and tax issues on surplus food in Denmark.

Four supermarket chains:

CO-OP - 1,200 supermarkets:

CO-OP is familiar with donating food, as the co-operation has been donating surplus food to the Food Bank daily through a few of its warehouse in Copenhagen since 2012. They have been working on their own guidelines for food donations to local organisations, and have been pushing for a change on VAT legalisation to remove VAT on surplus food for donations. During the project it was identified the CO-OP will not be able to contribute surplus food from its supermarkets until a new law has been introduced by the finance ministry.

Dansk Supermarked - 560 supermarkets

Dansk Supermarked has a history of donating surplus food. Since 2014, Føtex, Bilka, Netto, DøgnNetto (all are part of Dansk Supermarked) have been working with the Food Bank who have collected surplus food from 5 local DøgnNetto once a week in Copenhagen and one store in Bilka. Dansk Supermarked also has a long relationship with Dan Church Aid, and they are now working on a social supermarket in Copenhagen, where surplus food is going to be sold. The launch of this social supermarket is planned for the end of 2015.

REMA 1000 - 262 supermarkets

REMA 1000 is a strong promoter of reducing food waste in Danish households. Since 2010 it has been selling single fruit and vegetables, and more recently it has introduced smaller loaves of bread. REMA 1000 has some experience in donating surplus food from its distributions centres to local charities. REMA 1000 has been a strong partner since the project began and has been involved in both the initial testing of the system and with a demonstration of the web portal 2.0 in April 2015. At present REMA 1000 is keen to pilot the system in five selected supermarkets in and around Copenhagen.

LIDL - 100 supermarkets

LIDL has a long history of donating surplus food to charities around Europe especially in Germany. However, they are not holding any food donation activities in Denmark. As a partner to this project, they have provided valuable insight into concerns around food safety, and it would encourage the use of the Good Samaritan law, which is used in the United States. Throughout the project there has been an ongoing dialogue with LIDL about testing the system and using one of its stores as a pilot.

Homeless shelters and other organisations

Morgen Cafeen.

Serves breakfast and lunch for 250 homeless persons daily in Copenhagen.

Projekt Hjemloes.

Provides lunch and dinners for homeless persons – based in Copenhagen - during weekends and is servicing around 50 persons per serving.

A full list of the stakeholders identified can be found in Appendix: Section 6.4 Stakeholders.

2.2 Approach of the feasibility study

Immediately after approval of the project by the EU FUSIONS project, the project commenced in 2013 and a project plan was developed. Tasks were distributed among Stop Wasting Food founder Selina Juul and Communiqué's project participants. A timetable was created to ensure timely progress of the project.

The key stakeholders were then identified and mapped (Appendix: Section 6.4 Stakeholders.).

WRAP provided examples for evaluation metrics. Based on these examples the project team – together with the project's IT developers – defined the metrics that were in line with the projects over all plan, and that would be possible to incorporate into an IT system.

2.2.1 Project Plan

A working project plan was submitted to WRAP on a quarterly basis for review. As this was a working document, it was subject to a number of adjustments as the project changed.

The main steps taken as part of this project were:

1. Project plan created
2. Net-Ressourcer (IT developer) was hired and began developing a prototype of the IT system based on the initial project plan
3. 51 charities were identified and contacted
4. The main supermarkets; COOP, Dansk Supermarked, REMA 1000, and LIDL, were approached to secure initial engagement by introducing them to the project
5. A prototype of the IT system was presented to representatives from COOP, Dansk Supermarked, and REMA 1000 to test the functionality of the system and to provide feedback
6. Adjustments and changes made to the IT system were complete and prioritised based on the feedback from the selected supermarkets (see above)
7. Clarification from the Danish Veterinary and Food Administration regarding the system was sorted on request by the supermarkets. This clarification was obtained.
8. The former CEO of the Danish Food Bank joined Stop Wasting Food and the Surplus Food Redistribution project (at the end of 2014). The issue with handling VAT and tractability proved to be a bigger barrier than originally expected, and he could assist with his experience and network to overcome some of the barriers
9. The project team set-up an organisation consisting of 22 volunteers, whose aim was to assist on finalizing the development of the IT system, and especially was to focus on the support for its future wider uptake.
10. To assist the future role out of the system, a number of handbooks/guides were created to outline "rules of conduct" for donors and charities
11. Dialogue with COOP, Dansk Supermarked, REMA 1000, LIDL, and DSK continued during the winter and autumn of 2015. Due to the unsolved issue of the handling of the VAT issue, COOP and Dansk Supermarked proved to be hesitant to move forward with the project – even though both originally had shown big interest in the project. REMA 1000 on the other hand expressed interest in moving on, and a test of the system in a selected number of its supermarkets was discussed
12. Due to the upcoming summer holiday, the test of the system in a selected number of REMA 1000 supermarkets was postponed. It is hoped the test will take place during autumn 2015.

2.2.2 Changes to the project plan

As this is a feasibility study, it is important to stress there have been a number of obstacles and barriers throughout the development of the project. This has resulted in a deviation from the original project plan, particularly in relation to the timescales originally outlined. Many of these have been accounted for in the project plan risk log, while others have been unforeseen.

A major issue for the project has been the lack of ability to secure enough funding for the development of the final IT system. For example, after the first testing with the supermarket representatives, it has been identified that the donated food would need to be traceable for food safety regulations. However funding did not allow these required changes to be implemented in the IT system.

Another major obstacle was the existing VAT regulation for surplus food donations in Denmark. The regulation means that supermarkets are obliged to pay the full VAT on the goods it chooses to give away or sell cheaply to e.g. charities. Unfortunately, this has caused hesitance among stakeholders like Coop and Dansk Supermarket and their willingness to participate in the pilot of the portal, because it potentially means it is more expensive for supermarkets to give away food than to throw it out.

Furthermore, there is the issue of food safety. In case of the recall of donated food, the recipient of the food and the supermarket should be able to track the origin. This means all goods donated need to be registered by the supermarket, which generates an administrative obstacle for the supermarkets and charities.

Finally, working with national supermarket chains means reducing food waste (and therefore participation in the Surplus Food Redistribution system) needs to be included in the supermarkets' strategic goals. Furthermore, the supermarkets have to take into consideration numerous departments at the supermarket chains have to work together for the project to be successful, thus it can be a subject of internal bureaucracy.

2.2.3 Responsibilities

The overall responsibility for the management of the project was with Communiqué, while Stop Wasting Food provided expertise within the food waste sector.

Stop Waste of Food

Selina Juul (founder of the movement Stop Waste of Food, and project owner and leader of the overskudsmad/surplus food project) is responsible as partner in the FUSION collaboration by attending FUSION meetings, handling national PR of FUSION initiatives, and to make first contact towards potential food donors and stakeholders.

Communique AS

Partner & Communications advisor Frans Grandjean from Communique was hired as a Project Manager. Communique was in charge of postal data collection on charities and supermarkets, communication with food donors, charities, and stakeholders. Communiqué also handled communication among news media and potential partners, and the company was in charge of writing quarterly reports and forwarding them to WRAP and the other FUSION project managers. Another part of Communiqué's tasks was

project management of subcontractors like Net-Ressourcer, and participating in regional and European FUSION meetings. Communiqué also conducted presentation of the Web portal - version 1.0 - towards managers at Dansk Supermarked, REMA 1000, and COOP. The overall role as Project Manager was passed on to CEO Michael Buksti from Communiqué in October 2014.

Net-Ressourcer ApS

Net-Ressourcer was hired as the IT developer of the web-based portal and was responsible for the development of a portal, which was to link food surplus donations from the retail sector to be offered for free to local charities. Net-Ressourcer reported throughout the project directly to Selina Juul from Stop Waste of Food and to Frans Grandjean from Communiqué.

Interim Project Manager

In November 2014, Thomas Fremming, who had then joined Stop Wasting Food, took on the role as unpaid Interim project manager. Thomas Fremming (former CEO of the Danish Food Bank) was able to bring his extensive knowledge of the field of surplus food. One of his first tasks was to recruit 22 volunteers, and organise the volunteers into six teams (Fundraising, Research, IT-Development, Volunteer coordination, communication, and Development of operations). The teams were all supervised by team-leaders who reported to Thomas Fremming.

All relations toward food donors, charities, stakeholders, and potential partners were gathered under the management of Thomas Fremming, including reporting towards WRAP. Thomas Fremming reports directly to Selina Juul of Stop Waste of Food and to CEO Michael Buksti of Communiqué.

3 Overview of results

3.1 Main results

The aim of this feasibility study was to launch an online system to be used in practice in supermarkets in Denmark. The system, which is currently (September 2015) in the last phase before the test stage - is yet to be rolled out on a bigger scale. Therefore, it is difficult to evaluate against the criteria set at the beginning of the feasibility study, which mainly focused on the results of an online tool working in practice.

However, there are some evaluation metrics that can be measured against, which include:

- Feedback of first online test with three supermarket chains in Denmark
- Number of volunteer hours
- Match funding (time / financial) from project partners

A number of elements of the project have led to useful lessons being learnt. These included:

- Interviews with charities
- Interviews of similar projects in Europe
- Interviews with LIDL and REMA 1000
- Barriers to implementation

3.2 Assessment of results

3.2.1 Feedback on first test of the online system

The first test version of www.overskudsmad.dk was carried out in September 2014. The full report (Appendix - 6.2 Results of on-line testing with supermarkets) summarises three interviews with representatives from three different supermarket chains in Denmark - REMA 1000, COOP and Dansk Supermarked.

All three supermarkets had positive feedback towards the system and all indicated they were keen to take the concept forward. The initial feedback was that the system was easy to use. All three supermarkets tried how to make food donations, and they all did it without any major complications.

Based on the feedback, a number of useful comments were made on how the system could be improved. The testing also allowed the supermarkets to raise concerns regarding the system and encouraged those to feel even more engaged in the project. The concerns raised are discussed in further detail in section 3.2.8 "Barriers to full implementation".

3.2.2 Number of volunteer hours

In total, 6,224 volunteer hours have been contributed to this project.

In January 2015, 22 volunteers were recruited out of 325 applications. In the period from 15th January 2015 until 30th June 2015, 22 volunteers have contributed an average of 10 hours work per week. In total, 5,280 hours have been donated by the 22 volunteers to the project valuing at DKK110 per hour. This does not include the volunteer time for training the volunteers in coding and test of the web portal. This time was donated for free by the employees at Net-Ressoucer.

During the period from 1st July 2015 until 30th August 2015, 22 volunteers on average contributed 6 hours per week, totalling 144 hours.

The Pro Bono Interim Project Manager volunteered an average of 25 hours a week at DKK 450 pr. Hour, giving a total of 800 hours at a total value of DKK 360,000.

Of the 22 recruited volunteers, 15 were from nationalities other than Danish and represented Greece, France, United Kingdom, Spain, Estonia, Lithuania, Germany Iran, Singapore, Bangladesh, and Canada. At the time of recruitment, all of the volunteers were unemployed. At the beginning of August 2015, 8 of the volunteers are employed based on the experience gained from this project.

3.2.3 Match funding

A number of applications were made for securing funding for the project – both initially and during the project.

These applications included the following - which was successful:

- Funding for the start-up of the project:
 - 100,000 DKK- Nordic Council Nature and Environment Prize 2013
 - 10,000 DKK – given by "Svend Auken Prize" in 2013
 - 179,913 DKK – founded by EU project Fusions project

Other applications were made – but unfortunately were not successful:

- Environmental Protection Agency's pool of green enthusiasts to surplus food
- FORCE Technology sought funding from the Environmental Protection Agency's pool DENMARK'S MINING for surplus food
- Centre for Sustainability and Resiliency of funding
- TELIA, TDC, TELMORE, 3, Sonofon, and Creativity Communication on future sponsorship for campaign-marketing of surplus food

Throughout the project, Dennis Hørmann from www.fundraiseren.dk, who specialised in fundraising, has assisted in giving guidance on how to raise further funds for the project.

3.2.4 Interview with charities

100 charities were contacted by phone and categorized. The research showed that 51 charities did not receive food from the Danish Food Bank. These 51 charities were all interviewed to collect data on demographic information, operational information, information on food preparation, storage facilities, opening hours, number of servings on a day, number of volunteers, and meal types served during the week.

It was a demand from REMA 1000 they would like to donate food to those charities not already regularly receiving food from the Danish Food Bank. They must also comply with the food inspection regulations for preparing and serving daily meals.

3.2.5 Interviews of similar projects in Europe

In January 2015, it was identified similar projects had existed for a few years in several European capitals. The project management – Thomas Fremming together with selected volunteers - conducted desktop research of most European capitals and mapped seven similar projects. A survey was made and e-mailed to the selected organisations and a selection of interviews was made. A summary of the finding can be seen in Section 4.1. Table 3. Summary of on-line applications for food redistribution operating in the EU. The information provided included a wide range of knowledge on the experiences (both positive and negative) on setting up a similar project. This is discussed further in Section 4.1.

Based upon the research and interviews with representatives from similar projects in Europe, the project manager gained knowledge on potential ways to overcome barriers and how the IT system best could provide the necessary service and support to the donation of surplus food.

3.2.6 In-depth interviews with LIDL and REMA 1000

In January 2015 the project manager had the opportunity to meet with representatives from LIDL and REMA 1000. This allowed for a discussion on the potential barriers of using an on-line system and how it might be possible to overcome these barriers. .

3.2.7 Handbook

A number of handbooks and guides have been produced to demonstrate best practice. These guides – all written in Danish - have been developed and built based on conversations with the food donors and charities along with the project manager's previous knowledge on how to donate surplus food. These guides include how the IT platform works, how to store food and ensure the donations meet food standards, how to develop good relationships, and examples of contracts between charities and retailers. At present, four handbooks have been developed for different audiences. These cover:

- "Charities to receiving donated food" – includes a short description on how the system works and how charities bid for the donated food
- "Food donors" – includes a short description on how the food donors donate surplus food through the system and how to store food and ensure the donations meet food standards
- "Employees at Surplus Food" – a guide in assisting employees at surplus food on how to communicate with charities and donors
- "Overall project" – includes a short description of the system and the overall aims

At the time of writing, the guides were only available in Danish. Whether it will be translated into English at a later stage is still to be decided.

3.2.8 Barriers to full implementation

Despite the online system being built for test, there are a number of reasons why this project has not yet been tested on a bigger scale in several Danish supermarket stores.

The major barriers – lack of funding, VAT and Food Legislation - have already been touched upon.

Table 2 below shows some of the other reasons why the system is yet to be launched in practice with a supermarket and food recipient and any barriers other similar projects might like to consider before implementation.

Table 2. Barriers to implementation

Barriers	Solution	Impact on Project
Lack of funding to finish the IT development. The IT developer could not develop the app version of the tool and ran out of funding to develop the system fully.	Source funding and provide work to a company that specializes in developing the type of tool required.	Delay to the testing of the system
Food legislation is very tight within Denmark. This has made supermarkets anxious about donating food and has acted as a barrier to supermarkets donating food.	<p>Required an official statement by Danish Veterinary and Food Administration recommending the project and allowing stores to give away food. A letter was provided to Surplus food to say it was a communication platform and the responsibility lies with the donors and charities.</p> <p>Addressed through training so staff can identify 'bad food' and reduce cross contamination. Staff would be more comfortable if they could get immediate clarification on food safety and handling of products through a "hot-line"</p>	Delay to the testing of the system
In Denmark, VAT is still paid on food items even when they are donated to charity. This issue makes it more expensive for the supermarkets to donate food than to dispose it. Unfortunately, it is not currently on the political agenda in Denmark.	<p>One supermarket suggested they could overcome this by paying for claims themselves. They will reduce the product price to a fair level and pay the VAT.</p> <p>Consult with a VAT expert in the early stages of the project to provide advice on VAT rules (this is often not the case in other European countries)</p>	Delay to the testing of the system
Decision making process in supermarkets. In some instances, it was thought the decision to trial this system could be made locally; however in some cases a larger strategic decision was needed.	Target smaller stores to test the system in practice as there will be less strategic decision making. Once the system has been proved in practice with a smaller store it would be an easier sell to larger supermarkets.	Delay to the testing of the system
Stop Wasting Food / Overskudsmad is a movement, mainly consisting of few volunteers. Working with volunteers can result in more time being taken to complete certain activities.	Build in additional time into the project plan when working with volunteers.	Delay to the testing of the system
Temporary staff is used to replace regular employees over the summer period. Therefore, the time spent training regular employees would not be well spent as they are replaced by temporary staff over the summer.	The system should be simple to use and therefore training should not be too cumbersome. Even training temporary staff would still provide the supermarket with a cost saving of reduced food waste.	Delay to project tested in practice

Barriers	Solution	Impact on Project
A large number of the 50 charities identified were closed for the summer (end-July till mid-August) therefore no-one would be available to receive the food donations. Donations are often made from donors later in the day which is often too late for the charities to be open or use the food.	Avoid launching system in summer months. The charities capable of receiving food need to be able to do so at the time donations are made. The system would need to be able take this into account.	Delay to project
The turnover of staff (due to young, part-time employees) makes it costly to train employees.	Surplus Food is unique as the pilot offered to re-train new employees every time - a local volunteer group would roll out training / education	Delay to the project launch and test in practice
Many supermarkets use part-time employees, which makes it more difficult to implement and coordinate between the morning team and evening shifts in the supermarkets - evening teams throw out, and morning teams base orders	Management will overcome this if it is within the strategic direction of the supermarket and they are committed to reducing food waste.	
Concern random people might take advantage and try to pick up the surplus food from the supermarket in the name of a shelter or another institution. The volunteers collecting the food are vulnerable people and there is concern the food could end up on the black market.	The online system would allow for a photograph to be easily uploaded ensuring the correct person collects the food. One supermarket also wanted the system to only allow its donations to go to certain charities, which it already had good relationships with.	
Concern the system is too bureaucratic (in Denmark) as the supermarket needs to register the food thrown out twice. Once on the store system (for VAT reasons) and once on the Surplus food system (to make the donation).	In the long term both systems would be linked and handheld scanners should be able to do this and send to both systems.	
One supermarket is more interested in donating from its warehouses rather than working on a regular collection of surplus food from its supermarkets. This is already being done by REMA 100 from one of its warehouses as there is a longer life span on products from the warehouse than from stores.	This is a potential opportunity to be explored. The life span on products is longer, thus the supermarkets are less scared of food safety issues. The products are also prepacked i.e. meat packed in plastic compared to the butcher in the supermarket.	This could be used to support the project and look at other avenues for food donation.

4 Guidance for setting up a similar project

4.1 Details of other similar projects

Part of this feasibility study aims at reviewing how other European organisations have developed similar platforms which are helping to reduce food waste. The results can be seen in Table 3, which provides a summary of the main findings.

The full report (Appendix. 6.3 Feasibility Study of European Communication Platforms For Reduction of Food Waste) highlights the practices of EU organisations that handle surplus food. It discusses the challenges of handling surplus food and possible ways of managing them, whilst evaluating the feasibility of different European communication platforms for reduction of food waste by connecting food donors to charities. The information about each organisation was collected from the organisations official web pages and also through interviews with representatives of the organisation.

The results of the study suggest roughly all the organisations that use web or mobile applications to connect food donors and food receivers are non-profit and volunteer driven. The research also shows significant amounts of food waste are reduced by these organisations.

Through this study, new social relationships have been identified between the donors of surplus food and those in need in Denmark.

If funding can be found, the hope is to gather a summit in Copenhagen, with the aim of discussing the different approaches and challenges in reducing food waste from country to country. All of the contacted organisations in the different countries showed interest in participating in an event like this, to share its knowledge and experiences with each other, food donors, and charities.

Table 3. Summary of On-line applications for food redistribution operating in the EU

Name of organisation and country	Summary	Obstacles to consider	Type and quantity of surplus food from wastage
Foodwe, Belgium www.foodwe.be	Foodwe.be provides an online platform to professionals in the food industry and the opportunity to offer its unsold but safe-to-eat products online to charity organisations since September 2014.		18 tons of food donations took place through the website in Belgium since its launch.
Phenix, France angel.co/phenix	PHENIX provides an innovative web based platform, which allows connecting food donors and charities. About forty supermarkets are the food donors and eighty charities are working with the company. The service is free of charge for the charities receiving food, however charities are asked to have its own driver and transportation so it can pick up the donated food.	Charities not being able to afford equipment they need i.e. ice boxes or refrigeration trucks. Food donors concerned about the coordination and communication with staff i.e. extra task for no extra money.	Estimated c. 500 tonnes of products have been redistributed, representing c. 680 000 meals.
Boroume, Greece www.boroume.gr/en/	Boroume is an NGO and a volunteer-driven organisation. It acts as the mediator in charge of establishing the connection between food donor and charities. Boroume started with an internet site to promote its organisation, but it also accepts food donations via email, telephone, and social media. It has added a smartphone application where it advertises food needs of recipient organisations.	Some recipient organisations often do not have the transportation or enough staff to pick up a food donation. There is also a concern from food donors on food security.	
Plan Zheroes www.planzheroes.org	Plan Zheroes provides a system to help connect donors with distributors, charities and community projects that can benefit from surplus food. It has a smart system which automatically matches food donors with food receivers based on specific criteria. When needed, Plan Zheroes helps connect them with transporters and volunteers.	Plan Zheroes mentioned that transition from a citizen movement to incorporate, sector knowledge and constant changes, funding/revenue streams for core costs, and an operational model are the barriers they experienced	The amounts of food which Plan Zheroes diverted from wastage vary 1kgs to 50kg or 100kgs per days.
FoodCloud, Ireland foodcloud.net	FoodCloud is a not-for-profit social enterprise connecting businesses and charities through the FoodCloud website and app. Currently working with 100 Tesco stores, and it is piloting the service with other national retailers.	Businesses donating food need extra time and money to implement the change in the process. Food safety and liability concerns as well as type and frequency of surplus food available.	Around 2 tonnes of food per day.

Name of organisation and country	Summary	Obstacles to consider	Type and quantity of surplus food from wastage
ForWard, Hungary and Lithuania Foodrecoveryproject.eu	FoRWaRD is an international project under the Lifelong Learning Programme, co-founded by the European Commission. The aim of the project is <i>"the reduction of food waste and the promotion of unsold food recollection in favour of charities, thanks to training and use of ICT resources."</i> (Foodrecoveryproject.eu) FoRWaRD is a platform offering <i>"training materials and a brokering platform for the recovery of food waste"</i>		
Zero Desperdicio, Portugal www.zerodesperidcio.pt	The movement Zero Desperdício or zero waste in English, is based on a model that speedily and safely moves food surplus from donors to welfare institutions to the benefits of people in need. The total number of food donors of Zero Desperdício is 116, and there is 53 charities working with this organisation.		

4.2 Key factors for setting up a similar project

Despite the fact that Overskudsmad has not been launched in practice on a bigger scale with the supermarkets, a number of useful lessons have been learnt throughout the project period. These lessons learned and any changes to future approaches would be relevant to any project looking to roll out a system like this in Denmark or other European countries.

Below are the key factors to consider when setting up a similar project:

- **The geographical area**
Keep the geographical area realistic. The smaller the area, the easier it will be to research the charities available, such as soup kitchens and homeless shelters.
- **Carry out research within the set geographical local area**
Questions to consider would include:
 - Can charities use more food?
 - What food do charities need?
 - Are charities capable of handling the food?
 - Can charities store the food properly?
 - Can charities collect the food?
 - How much surplus food is there and by whom?
 - Is other organisation also donating surplus food?
 - Can food donors and charities work together to achieve better results?
- **Buy in from key stakeholders**
Set up a model for redistribution for surplus food and use this to demonstrate the project. Find a company with stakeholders to be ambassadors to reduce food waste. It is important to get the right people around the table so they see opportunities rather than barriers
- **Test your hypotheses with food donors**
Make in-depth interviews with the right stakeholders so that your first draft of specifications/plan/business model can easily be adapted to the demands and opportunities that are given to you - recommended – Business Model Canvas, by Alexander Osterwalder & Yves Pigneur, 2010
- **Identify barriers in supermarkets**
Setup your model to work around the barriers, find solutions, and (see examples in table 2 barriers to implementation) make it as easy as possible for food donors to engage. The time used must be kept to a minimum so that it is used by staff rather than being too bureaucratic
- **Understand countries food legislation, VAT and Tax legislation, and food safety**
It is important to build into the timeframe a review of the legislation of the country regarding food waste. A useful report: *Comparative Study on EU Members States' legislation and practices on food donation. Final report, June 2014. (Client EESC, European Economic and Social Committee)*
Consult an expert on VAT and Tax regulation in the particular country

-
- **Secure full funding before starting a project**
Review budget and adjust goals if funding is not adequate (it can be difficult to get additional funding to an already started project). A funding strategy should be in place before beginning a project, and funding channels for ongoing operations should also be identified and tested beforehand
 - **Sponsorship**
Use sponsors as leverage for a matching sponsorship until you reach your goal
 - **Detailed project plan**
Produce a detailed plan for implementation and development including budget
 - **Volunteers**
Using volunteers will take longer for the system to be completed. Paid workers will do the job much quicker. Be aware if using volunteers it can add time to the project due to other commitments the volunteers might have
 - **Test your specification of the IT system**
Test your specification of the IT system's functionality with end users before building it and secure sourcing of it to the correct company in order to produce this. Ensure there is an open source code so it can be shared with other countries quickly. This will also allow for maintenance to be done by individuals rather than continuing to pay a company to do this.
 - **Project management**
Select the right project manager for the job, desirable experience and knowledge: Day to day routines in supermarkets way of working, knowledge about IT projects, food safety, food distribution, fundraising, and food donations
 - **Target small food companies initially**
By targeting a small food company, decisions will be quicker and faster to be made as it will have less people to consult. Using a small food company will allow for the system to be tested with a small quantity of food and they will potentially have more local attachment to charities.
 - **Targeting large food companies**
Working with a large food company will result in a long chain of command – more food – PR or CSR strategy in communication and less local attachment. Ensure agreement at the right level within the supermarket at the initial stages. Engage in a close and constructive dialogue with supermarkets who are a key stakeholder for such a project to succeed. These key stakeholders have important knowledge on the food area and therefore they might as well be consulted through e.g. early system tests early on in the process
 - **Communication and promotion**
Promotion and communication should only take place once the system is up and running successfully
 - **A guide on traceability regulation**
Be aware donation of food that is untraceable can have big consequences for supermarkets. If this can be provided they will keep engaged in the project.
 - **Recruitment of suitable supermarkets and charities**
This is one the most important elements of the initial stages of the project. Ensure supermarkets are willing to donate food and identify charities that are
-

able and willing to receive the surplus food. Both the supermarkets and charities identified need to be fully committed to the project

- **Avoid summer and Christmas months**

This is due to temporary staff in supermarkets and charities closing for summer months and because staff in supermarkets are very busy around Christmas

- **Define responsibilities, roles, and deliverables**

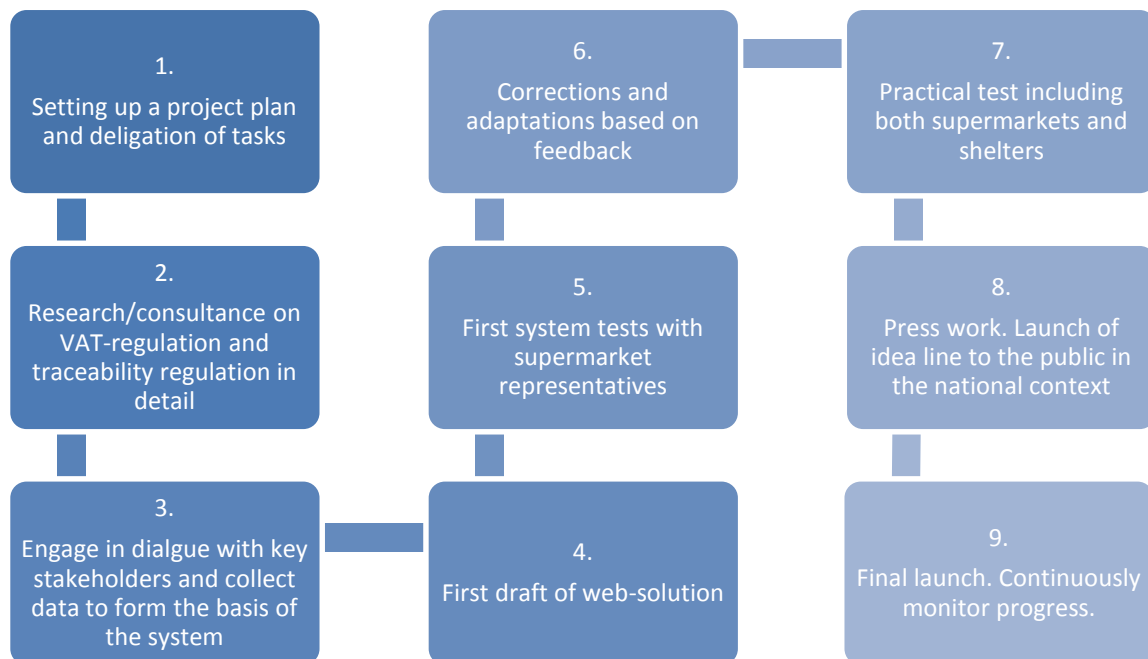
Responsibilities, roles, deliverables and a deadline all need to be clearly defined and assigned before the beginning of the project

- **Build an IT system within the budget**

Define and change the specification so that it fits in the budget from the beginning rather than outlining what you want and then realise the budget is not large enough. Have a clear set of milestones of when to review and decide to go ahead or not

4.3 Main steps in setting up a similar project

Below is a chart displaying the nine main steps for a replication of this type of project in a different setting. It is based on experience and the main barriers this feasibility study has come across. The chart is meant as an overall guide.



4.4 Recommendations on Replication

It is important for a project like Surplus Food Redistribution to establish a good relationship with the main stakeholders, who also create the foundation for making the system work.

An example could be to establish a close collaboration with one supermarket chain who covers both the local area where the project is tested and initiated, but also larger regional areas in order to make sure that it is possible to expand the project with that particular supermarket.

As mentioned above, knowledge about different regulations on the food area in different areas/countries requires research and a realistic approach to what is possible and what is not.

5 Conclusions

This Surplus Food Redistribution feasibility study was developed under the EU Fusions project. The aim of this feasibility study was to test how it is possible to set up an IT system in Denmark that connects organisations like supermarkets who have surplus food on a daily basis, with local organisations like homeless shelters. The idea is that good food that would otherwise have been wasted will instead be given to people in need.

The project was conducted by the following actors: Communiqué, Stop Waste of Food and Net Ressourcer.

This feasibility study provides recommendations on the replication of the project in other cities in Denmark and in other countries.

A major obstacle identified was the challenge made by the existing VAT regulations in Denmark. These regulations means that supermarkets are obliged to pay the full VAT on the goods they choose to give away or sell cheaply to e.g. charities. In short, it is currently more expensive for the supermarkets to give away food than to throw it out.

Another obstacle concerned the issue of food safety. In case of the recall of donated food, the recipient of the food and the supermarket should be able to track the origin of the food to prevent diseases to spread. This means that all donated food needs to be registered by the supermarket which again generates an administrative obstacle for the supermarkets and charities.

Finally when working with big national chains of supermarkets, having them support a system like this, means that it suddenly becomes a strategic decision for them to participate and by that this needs attention from the highest organisational level, so a final decision if the supermarket is to participate takes longer.

To secure the funding of the project going forward a number of applications was made for additional funding, but unfortunately, not enough funding was secured to enable a smooth finalisation of the project. Instead, a project organisation based on 22 volunteers was set up, to secure and prepare for the future roll out of the system.

Due to the barriers listed above it proved difficult to test the system on a bigger scale within the timeframe of this project. At present the hope is to be able to conduct a test with a small number of REMA 1000 supermarkets during fall 2015, and based on the feedback from this test, to do a roll out the system on a larger scale – hopefully in 2016.

As an IT system like this had never been built before in Denmark, it proved difficult during the project to stick to the original timeframe and budget, mainly because the barriers discovered during the project demanded extra programming. A way to overcome this in another project is to be even more specific about the needs for an IT system from the beginning and to research even further into the barriers caused by rules and regulations.

All in all the project have given lots of valuable insights, both in how to establish and IT system like this, but also into the barriers in donating surplus food. Even though the system has not yet been tested on a larger scale, the project is still moving on and the hope is to do a test of the system within the next couple of months.

If others were to set up a similar project, the most important lesson learned is: Think big but start small. Put differently; do not be afraid to think visionary, but be aware of all potential barriers. Begin by developing a small IT system and make sure from the start to have the support from one or two supermarket chains who have agreed in participating in a test of the system and who are able to see the possibilities not just the barriers.

Based on that small scale test of the system extra funding should be secured to provide the foundation for a bigger roll out of the system to more cities, retail partners etc.

Communiqué is a Danish company specialising in communications consultancy.

Name	Communiqué
Address	Kronprinsessegade 8B, 4. 1306 København K
Phone	+45 3698 3400
E-mail	mb@communique.dk
Website	http://communique.dk/



6 Appendix

6.1 Examples of www.overskudmad.dk

Screenshots from www.overskudmad.dk

Overskudsmad.dk OM OVERSKUDSMAD | 405190

Doner dine overskudsfødevarer, inden de bliver til affald - det er nemt og hurtigt

Donorer

SUPERMARKEDER CATERING
RESTAURANTER
BAGERIER MEJERIER

OVERSKUDSMAD.DK
mad til flere

Organisationer

9 virksomheder har mad til overs - **DONER JERES MAD HER**

Mange organisationer modtager mad - **TILMELD DIN HER**

Overskudsmad



Problemet

I Danmark er madfattigdom desværre et stigende problem. Vi finder det derfor problematisk, at en stor del af vores mad og fødevarer samtidig bliver smidt ud. Det er en ubalance der er uacceptabel og uholdbar, da det ikke kun belaster miljøet, men også vort samfund. At smide mad ud er aldrig i nogens interesse og slet ikke de svageste i samfundet, der kunne have gavn af maden. Vores mission er at komme madfattigdom til livs og passe på miljøet ved, at tilbyde en bæredygtig og socialt ansvarlig løsning der samtidig kan være med til at styrke det lokale fællesskab landet over.

Vores løsning

Ved hjælp af et strategisk partnerskab med fødevarer virksomheder i detalledet varetager vi et fælles ønske om, at reducere mængden af overskudsfødevarer der går til spilde. Ved hjælp af vores hjemmeside skaber vi nemt og hurtigt kontakt mellem fødevarer virksomheder i detalledet og humanitære hjælpeorganisationer i lokalsamfundet. Dermed kan lokale fødevarer virksomheder registrere når de har overskudsmad der ikke kan sælges, hvorefter hjælpeorganisationer i lokalsamfundet kan afhente maden og dermed hjælpe socialt udsatte. Ved hjælp af denne enkle form for distribution af overskudsmad nedbringer vi både madspild og madfattigdom, og vi gør samtidig en mærkbar forskel for socialt udsatte borgere i vores lokalsamfund og for miljøet.

Overskudsmad - Dampfærgevej 30, 2100 København - tlf: +45 22906563 - mail: info@overskudsmad.dk

Genveje

OPRET HERBERG
OPRET DONOR

Menu

HERBERGER I DANMARK
ANSVARET
INITIATIVET
MADEN
SPONSORER

Om overskudsmad

Overskudsmad er et non-profit projekt udsprunget fra organisationen "Stop Spild af Mad". Projektet varetages af Selina Juul og stifter af Fødevarerbanken Thomas Fremming, samt en gruppe engagerede og dygtige frivillige.

Overskudsmad.dk tilbyder et netværk der gør det nemt og hurtigt at nedbringe madspild og madfattigdom. Dette sker via vores hjemmeside hvor fødevarer virksomheder, detailhandel, storkøkkener osv. kan donere god og holdbar mad til organisationer i lokalområdet. Dermed kan maden komme trængende borgere til gode, frem for at blive smidt i containeren.

Overskudsmad er en non-profit organisation og vi er derfor også i høj grad drevet af vores frivilliges hårde arbejde.

Hvordan fungerer det?

Fødevarer virksomheder, detailhandel og andre der ønsker at donere mad registrerer sig i vores system og kan derefter oprette donationer, hvor de angiver hvad der doneres, hvor meget samt hvor, hvornår og hvordan det kan afhentes. Tilmeldte organisationer i lokalområdet modtager derefter en e-mail og kan ved hjælp af vores hjemmeside angive om de ønsker maden. Hvis de ønsker maden er alt de skal gøre, at hente den og de kan derefter tilbyde måltider til trængende borgere.

Har din organisation brug for mad?

LOG IND HER eller registrer dig i formularen til højre.

Overskudsmad.dk sætter godgørende organisationer i forbindelse med supermarkeder, storkøkkener, kantiner og andre, der ofte har gode fødevarer i overskud.

Hvis I ønsker at være en del af netværket og modtage overskydende mad fra donorer i jeres nærrområde, kan I tilmelde jer i skemaet til højre. Derefter vil donorer (som for eksempel jeres lokale supermarked) henvende sig, når de har overskudsmad, som kan afhentes – helt gratis.

Overskudsmaden fordeles efter først til mølle-princippet. Det vil sige, at den modtagerorganisation der først svarer på henvendelsen om tilgængelig mad, har ret til at modtage det.

Når overskudsmaden (som ikke har overskredet sidste salgsdato) er afhentet fra supermarkedet eller en af de andre donorer, ligger ansvaret for maden hos de modtagere, der har afhentet den.

Det skal I gøre:

- Registrer jer i skemaet til højre på denne side,
- Afvent mail fra donorer i nærheden, om at de ligger inde med overskudsmad,
- Når I modtager en mail, svar hurtigst muligt tilbage, at I ønsker fødevarerne
- Afhent maden.



TILMELD JERES ORGANISATION HER

Herberg / Organisation *

Vælg eller skriv herberg

P-Nummer *

Adresse *

Postnummer *

By *

Fornavn (kontaktperson) *

Efternavn (kontaktperson) *

Telefonnr. *

Email *

Password *

Bekræft password *

Hjemmeside link

 Jeg accepterer betingelserne for overskudsmad. [Læs betingelserne her](#)

TILMELD



Opret donation

1. Varer i kurven Kategori: Enhed: Stk. Frostvare: Kølevare:

Afhentning

Adresse Kontaktperson

Postnummer Telefonnummer

By Bemærkning

Afhentes fra Senest

Afhentnings Information

Afhenteren skal selv
 Medbringe kasser



Alle Aktuelle donationer idag (ikke reseveret)

Donor	Postnr	Afhentes mellem	Varer	Antal varer	
Ingen donationer					

Aktuelle donationer (reseveret)

Donor	Postnr	Afhentes mellem	Varer	Antal varer	
Ingen donationer					

6.2 Results of on-line testing with supermarkets

Evaluation of the first test version of www.overskudsmad.dk, took place in October 2014.

This evaluation sums up findings from three test and interviews with professionals from different supermarket chains in Denmark (REMA 1000, COOP, Dansk Supermarked).

Helene Regnell, CSR Manager, Dansk Supermarked

Helene Regnell performed a test donation through test.overskudsmad.dk, and she is positive about the structure and user interface.

She explains that creating a user (donor) was easy and without problems. Next face, creating a test donation, was also fairly problem free.

Helene Regnell has a few suggestions regarding the structure of the boxes where you fill in information on the different types of food. She also suggests an alternative to how to measure how much food the donation consists of (kg, litres, number of goods and so on). Before she can recommend the stores in the Danish Supermarket Group (Netto, Føtex, Bilka and more) to participate, she requires an official statement by Danish Veterinary and Food Administration recommending the project and allowing stores to give away food.

For example, this could be a particular function in the system that makes it possible to trace goods and their origin in case of disease caused by the donated food.

Still, her worries are that filling in information will be too bureaucratic and too much administration for the stores and personnel.

Anders Nielsen, Manager, SuperBrugsen (COOP), Copenhagen N; the group covers 1,200 supermarkets under diverse brands

Anders Nielsen is very excited about the idea and concept. He is enthusiastic about the structure and layout of the site in general.

He created a user (donor) and explains that it was easily done and without any complications.

Afterwards, he created a donation and described this process as simple too. He proposes an automatic function that takes the user on to an empty sheet to make a new donation right away, but adds that it would be a very slight adjustment.

Anders Nielsen is also interested in an official declaration from the Veterinary and Food Administration authority allowing him to give away food, which he is not allowed to sell.

Lasse Lindner, Category Manager, REMA 1000

Lasse Lindner explained that creating a user and donation was easy and simple. He is excited and enthusiastic about the user interface and the project over all.

He had three main worries regarding the site:

-
1. How will employees in the supermarket verify the identity of the person who picks up the food? Lasse Lindner worries that random people might take advantage and try to pick up the surplus food from the supermarket in the name of a shelter or another institution.
 2. Will shelters/institutions keep on contacting the supermarket if they don't know that the donation has already been picked up by another shelter?
 3. How will we make sure that people meet the supermarket at the right place (and not e.g. walk in through the backdoor without permission) to pick up the food?

6.3 Feasibility Study of European Communication
Platforms for Reduction of Food Waste

**Feasibility Study
of European Communication Platforms for
Reduction of Food Waste**

Prepared by: Overskudsmad

**Interim Manager: Thomas Fremming
Research Team: Dovile Miliukaite, Parvaneh Hajeb, Maryam
Shariat**

August 2015

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[4.8. Hungary and Lithuania \(partners at FoRWaRD project\)](#)

[4.8.1. Lithuania: Charitable Foundation "Food Bank"](#)

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DFDS A/S - northern Europe's largest integrated shipping and logistics company



KEA - Copenhagen School of Design and Technology



WRAP - Waste & Resources Action Programme, registered charity in UK



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Ms. Laura Gomes, Associação DariAcordar / Movimento Zero Desperdício, Portugal

Ms. Ujhelyi Katalin, Hungarian Food Bank Association (Elelmiszerbank), Hungary

Mr. Jean Moreau, Phenix, France

Ms. Maria Ana Neves, Plan Zheroes, UK

Ms. Aoibheann O'Brien, FoodCloud, Ireland

Ms. Xenia Papastavrou, Boroume, Greece

Volunteers working for this project: Mr. Thomas Fremming, Ms. Dovile Miliukaite, Ms. Parvaneh Hajeb, Ms. Maryam Shariat.

6.3.1 Executive summary

This study highlights the practices by EU organization to handle surplus food. It also discusses the challenges to handle surplus food and possible ways of managing them. In this research, we evaluate the feasibility of different European communication platforms for reduction of food waste by connecting food donors to charities. The information about each organization was collected from their official web pages and also through the personal interview with the organization's representatives. The summary of the investigated organizations is presented in the following chart. The results of the study suggest that roughly all the organizations are non-profit and volunteer driven that use web or mobile applications to connect food donors and food receivers. Significant amounts of food waste are reduced by the organizations. Through this study, we will develop new social relationships between the surplus food and those in need in Denmark, and also develop a collaboration model that can be replicated across Europe. We plan to organize a forum in Copenhagen to discuss about different approaches and challenges in reducing food waste. All of the contacted organizations agreed to participate in this event and share their knowledge and experiences with each other, food donors and charities.

Summary of EU organization working on surplus food.

	Year of est.	Legal status	Volunteer driven?	How many volunteers/paid employees?	Transportation: organisation/charities?	Mobile /Web app	Nr. of food donors	Nr. of charities	Tonnes per day/week/month/year
BE	2014	Non-profit	Yes	-	Charities	Web	-	-	20 t/year
DK	2012	Non-profit	Yes	22 volunteers	Charities	Web	-	-	-
FR	2014	Social business company	No	10 full time, interns	Charities	Web	40	80	-
GR	2011	NGO	Yes	30 volunteers, 3 paid full time, 2 paid part time	Charities	Both	200	970	-
IE	2013	Non-profit charity	Yes	≥50 volunteers, 7 full time, 2 part-time	Charities	Both	≥140	300	2 t./day
PT	2012	Non-profit charity	Yes	-	Charities	No	116	53	-
UK	2011	Social network	Yes	≥50 volunteers, 6 paid employee	Charities	Web	-	-	100 kg/day

6.3.2 Introduction

Roughly 1/3 of the food produced in the world for human consumption every year, which is about 1.3 billion tons, gets lost or wasted (UNEP, Food Waste Facts). The food currently wasted in Europe could feed 200 million people (FAO, 2011). In the EU food waste was 89 million tons in 2006 and the forecast is that by 2020 this will be up to 126 million tons (in case nothing will be done) (Sustainable Food, 2015) whilst at the same time 16.9% of the EU citizens live below the poverty line (Eurobarometer 74.1). Therefore, the European Commission proposed a Roadmap to a Resource Efficient Europe, in 2011, which sets a 50% food waste reduction target for 2020. In 2012, the European Parliament proposed a 50% prevention target on avoidable food waste by 2025, and having 2014 as the European Year against Food Waste (COST, 2014).

We are a group of volunteers working at the newly started project Overskudsmad (Surplus Food) which is originated from the largest Danish non-profit consumer movement against food waste, called Stop Spild Af Mad (Stop Wasting Food).

We have conducted a feasibility study that aims to explore European communication platforms that are helping to reduce food waste. The report gives a brief description of organisations in the EU, i.e. establishment, activities and results of their work so far.

To this day, one can distinguish different initiatives aiming to either reduce food waste or share surplus food. However, most of the organisations seek both. We can single out these initiatives into four categories: 1) governmental initiatives; 2) Food Banks, 3) applications, providing a service of discounted food products at local stores for consumers and 4) applications, connecting food suppliers with food charities. Our main focus is on the latter initiatives. People in Belgium, France, Greece, Ireland, Portugal, United Kingdom and other countries have created applications that help to reduce waste and share the surplus food and connect food suppliers with charities. These amazing and simple to use apps significantly reduces food waste. Since Overskudsmad falls into the same category of initiatives, it is also described in the report.

The feasibility study is structured as follows: the Methodology chapter, thereafter a set of countries depicted in alphabetical order, then Conclusion and future trends and finally the Research and Development team profile as well as References.

6.3.3 Methodology

The feasibility study research and writing has been done in the period of six months, i.e. from March to July, 2015. In order to conduct this feasibility study, we have made an initial list of organizations working on food waste reduction and located in EU. Then we have screened the organizations based on several criteria including the approaches they use

to reduce food waste and their language. One of our main selection criteria was that organisations would be using software performing as a platform for connecting food donors with food receivers. Their computer programme should be designed to run as a Web page, Mobile Application or both. Basic information about each organization was gathered from their internet homepages as well as other websites. We have contacted the chosen organisations in order to get more information. Thereafter we have interviewed some of the representatives of organisations on Skype or phone. Each representative has been requested to participate in our survey and answer to a detailed questionnaire about their organizations. With all the gathered information we were then able to write the report.

Two food banks, in Hungary and in Lithuania, were chosen as representatives of EU FoRWaRD project. FoRWaRD is a relevant project to this feasibility study because it includes a Web based platform for the recovery of food waste.

We have to remark that not all the contacted organisations have replied to our emails and not all of them could fill in the questionnaires fully because they did not have the necessary information or not all of the questions were relevant to their cases. Therefore answers differ in one or another manner.

Even though we have strictly focused on the research of EU-based organisations with certain characteristics, we would like to mention some of the other organisations/companies that we came across while conducting this feasibility study. The following organisations could be of interest to those who are engaged in the field of people working with food- and non-food waste reduction: Zero Percent - an app, helping to reduce the waste of surplus food (Chicago, USA, <https://www.zeropercent.us/>), Pare up - an app pairing up the retailers with unsold unexpired food with users wanting to buy cheaper food (New York, USA, <http://www.pareup.com/app>), BioRampe - a physical shop for food and non-food products that cannot be sold in traditional supermarkets due to goods damaged packaging or a too crooked appearance of vegetables (Switzerland, <http://biorampe.ch/>), Krom Kommer - saves wonky fruits and vegetables by producing and selling soups (the Netherlands, <http://www.kromkommer.com/english/>), Eqosphere - a collaborative web platform battling against (food) waste (France, <http://eqosphere.com/>), Allwin - Food Bank/Social enterprise, providing food to the needy (Sweden, <http://allwin.nu/>), Espigoladors - a Catalan social enterprise project fighting food waste and empowering groups at risk of social exclusion (Spain, <http://www.espigoladors.cat/>), Bring the Food - app, helping people to share their excess food (Italy <http://www.bringfood.org/public/landing?locale=en>), Food is precious - the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management initiative aiming to reduce waste, raise awareness and award outstanding ideas (Austria <http://www.bmlfuw.gv.at/en/fields/agriculture/food/Foodisprecious.html>), Die Tafeln - social movement where volunteers help deliver surplus food to the needy (Germany, <http://www.tafel.de/die-tafeln.html>).

6.3.4 Results

There are several organizations in EU countries working on food waste reduction. Various actions are taken in order to reduce food loss such as: food waste prevention using increasing public (consumers and retailers) awareness and training; working with farmers so that they do not reject less-than-perfect-looking produce; getting leftover food to shelters and charities; working with farmers, processing centres, grocery stores, and other food sellers to reclaim food; working with grocery stores to offer discounts to consumers on products that are nearing their expiration dates; and using waste for energy, compost, and animal feed.

Out of various organizations working with food waste reduction in EU countries, we have initially selected some organizations to conduct the feasibility study. Some of the organizations were omitted from this study because of language barrier and also due to no reply from the organization to our interview request. Finally we have chosen the following organizations which are reducing food waste using same approach we are looking for.

6.3.5 Foodwe, Belgium

The information provided in this chapter was solely obtained from homepage of Foodwe (<https://www.foodwe.be>).

Facts about the organization

Foodwe is a non-profit organization founded by Olivier Neufkens, Joost Vandeborre, Martin Neufkens and Jean Christophe Henderickx in Brussels, Belgium.

Foodwe has received the prize 'Coup de Coeur 2014' from the French Nicolas Hulot Foundation. It has also won the Brussels Life prize during the European Crowdfunding fair. In 2015 Foodwe was the finalist for the Associations/NGO Award of the European Week for Waste Reduction. There were a total of 11,993 projects aiming to reduce food waste throughout Europe. The event has the support of the European Commission and has been an annual event since 2009. It aims to highlight the principles of limiting, reusing and recycling waste over the course of the week, simultaneously with events organised by various other actors in the industry.

Whom are they working with

Foodwe works with charities, food industries, and supermarkets. Since we were not able to reach the representatives of this organization, we do not have more detailed information about supporters of Foodwe.



How does it work

By proposing both the sales as well donations, Foodwe takes into account the economic, ethical and environmental circumstances around food waste.

Since September 2014, the online platform, Foodwe.be, has been providing professionals in the food industry the opportunity to offer their unsold but safe-to-eat products online to charity organisations. Food industry professionals can make donations but can also offer to sell at a maximum of 60% of retail price, safe-to-eat products which have not met their market: those too close to their sell-by date which means they cannot be stored, delivered, and then sold to the public, and those which were discarded at an earlier stage for not conforming to the norm, for example fruit which look "ugly", which although perfectly healthy, is usually rejected and thrown away.

Organizations can register their business or charity on Foodwe online platform by completing their profile with the name of the business, their activities, geographical location etc. Once completed, the profile will be validated by the Foodwe team and will provide them access (or not) to the website.

Foodwe set rules for the food donations; the proposed food donations must always be still appropriate for human nutrition and hygiene and health security rules within the food chain must have been observed. The seller must provide at the time of delivery, clear and comprehensive information concerning ingredients, allergens, nutrition and all elements mentioned in the new EU regulation 1169 / 2011. Foodwe cannot be held responsible for transactions made between the seller and the buyer.

Financial management of organization

Foodwe is funded solely by individuals who wish to support a concrete project that proposed food waste reduction.

In case of a food donation, transactions are free for the charities as well as to the food industry. In case of discounted sale, Foodwe will ask no commission on transactions during the first 2 months following the launch of the platform. After that Foodwe gets a 3% commission on the generated revenue.

Type and quantity of surplus food diverted from wastage

In just a few months, Foodwe has been able to offer over 20 tons of food to charity groups in Belgium. They hope to reduce European food wastage by 1 million tons.

Since its launch at the end of 2014, 18 tons of food donations took place through the website in Belgium.

Foodwe offers any food that is still consumable but cannot be offered anymore through the classical distribution channels. For instance wasted food due conventional non-compliance; these are, for example, the famous "straight bananas" or "curved cucumbers", but still perfectly consumable.

Products that are too close to an expiration date that can no longer kept in stock, are shipped and then sold to the general public.

6.3.6 PHENIX, France

The information provided in this chapter was obtained from a questionnaire, filled in by the company and from a website <https://angel.co/phenix>.



Facts about the organization

PHENIX is a social business company; its founders are Jean Moreau and Baptiste Corval. The organisation has been in operations since the beginning of 2014. The Board of Directors is made of five persons, standing for the management and the investors. Ten full time paid employees and interns are working in PHENIX.

The main idea behind PHENIX activity is that all sorts of unsold products as well as waste can be of use:

"Through a digital marketplace and a range of professional services, we simplify and optimize the re-use and recycling of all kinds of products. We work with retailers, manufacturers and event organizers, finding a new life for their unsold or surplus products, thus reducing their cost base and generating revenue out of those for no costs." (About Phenix)

Whom are they working with

PHENIX makes a connection between food donors and charities. About forty supermarkets are the food donors working with PHENIX. Approximately eighty charities, large and small, are working with the company.

As the co-founder Jean Moreau said, their strength lies in the ability to work daily in the field "as a trusted third party" as well as to instruct staff, raise employees' awareness of fighting waste, take care of food collection and finally, manage disagreements between the two main parties - food donors and food receivers (Questionnaire PHENIX).

PHENIX does not work with municipalities yet.

How does it work

PHENIX office is located at 15 rue Martel, 75010 Paris, France. The staff works on the development of the company and with communications (more information: www.wearephenix.com/on-parle-de-nous/). PHENIX does not work with neither fundraising nor applications for funds. The company is in a constant search for support to food donors, that is, for new clients, and in search for support to charities: "we want to consolidate that part of our activity" (Questionnaire PHENIX).

PHENIX provides an innovative Web based platform, which allows connecting food donors and charities. In the future the company will have the Web based platform v2 + Mobile App.

The reason for food donors to use Web vs. mobile App is that there is not always the Internet connection in warehouses of the food donors. PHENIX service is free of charge for the charities receiving food, however, charities are asked to have their own driver and transportation so they can pick up the donated food.

Since the start of PHENIX collaboration with food donors and charities, surplus food have been redistributed to local charities every day. PHENIX have established the following partnerships and relationship with them: mentorship, advisory, legal.

Financial management of organization

Venture capital, public funding, start-up contests, etc. fund the company. PHENIX seeks for and receives sponsorships. The company has not used crowdfunding yet, however, they do not reject this option. PHENIX model is 100% free for charities. The company does not get any financial support from food donations receiving-charities. The annual budget of PHENIX is approx. 600K €.

Type and quantity of surplus food diverted from wastage

PHENIX have not specified types of food donated and whether the donations are recorded. However, they have provided us with knowledge that every day, except Sundays, charities receive food in supermarkets. They estimate that c. 500 Tons of products have been redistributed, representing c. 680 000 meals.

Obstacles and issues to consider

According to the co-founder of PHENIX, Jean Moreau, "the biggest obstacle for charities is to be well equipped: they need a refrigerated truck or iceboxes in order to collect fresh food. Often, they can't afford it." (Questionnaire PHENIX)

What concerns the biggest obstacles for food donors, is the "coordination and communication with staff. For example, in supermarket, giving food is an extra task for staff and they don't obtain extra money. They don't see the meaning of this action. It is also difficult to shrug off some of their habits, like giving instead of throwing." (Questionnaire PHENIX)

Regarding the benefits for food donors and charities that are cooperating with PHENIX, Jean Moreau states that, "Thanks to this donation, the donor can benefit from a tax reduction corresponding to 60 % of the value in stock of the goods. Secondly, charities receive food for free that can benefit to their recipients." (Questionnaire PHENIX)

PHENIX is one of the pioneering companies in France, however, new organisations have appeared. These organisations are either partners or competitors of PHENIX: Zero-Gâchis, Optimiam, Eqosphere, Banques Alimentaires (Questionnaire PHENIX).



6.3.7 Boroume, Greece

The information provided in this chapter was obtained from Boroume web page (<http://www.boroume.gr/en/>) and interview with Ms. Xenia Papastavrou, representative of Boroume.

Facts about the organization

Boroume was founded in 2012, but as an initiative it began in May 2011. Boroume is an NGO and a volunteer-driven organisation and it does not have a Board of Directors, but it has three founding members. It is funded by private foundations and private donations from individuals. The total number of volunteer in Boroume is 30 per week. There are 3 paid full time employees and 2 paid part time employees in the organization.



Whom are they working with

Boroume has approximately 970 recipient charities, ranging from small soup kitchens serving 15-20 people to soup kitchens run by the church that cater to 500 people. They cooperate with 170 recipient charities regularly. They have approximately 200 permanent donors and many hundreds including ad hoc ones.

How does it work

Volunteers record the food needs of recipient organisations that take care of the most vulnerable groups in society and try to match these needs with incoming food donations based on two criteria: a) greatest need and b) geographical proximity. One of the paid staff is in charge of training volunteers and the other is in charge of daily operations. Other roles e.g. management and fundraising belong to the three founding members. Also, founding members take the lead in their major programs e.g. BOROUME in schools, gleaning and is assisted by volunteers who are dedicated to each program.

Boroume is always searching to find out more food donors and they visit food aid programmes across Greece in order to record their food needs and to try to raise awareness about them.

Boroume started with an internet site to promote their organisation. They accept food donations via email, telephone and social media. To these they have added a smartphone application where they advertise food needs of recipient organisations.

Donors prefer to call Boroume up to inform them of a food donation and then send them a detailed excel sheet with all the details of the products and quantities they wish to donate.

The recipient organisations e.g. soup kitchens, orphanages, old-age homes etc. pick up food donations from food donors. BOROUME acts as the mediator in charge of establishing the connection between food donor and charities. It visits charities and food donors.

Boroume has a partnership with a law firm and an accountancy firm that provide them with legal and accountancy services pro bono. Boroume works with an advertising services-internet marketing company that advises them pro bono on communication. They are members of Gleaning Network EU. They collaborate with the Economic University in Athens, providing consultation for new social entrepreneurship program. They collaborate with Charokopio University of Athens to measure the positive environmental impact of their work.

They review their organisation's goals every year and draw up a business plan that reflects their view of the organisation's development. They are constantly devising new programs e.g. an educational program that targets primary school kids and a gleaning project that targets surplus agricultural produce.

Financial management of organization

Boroume is funded by private foundations and private donations from individuals. It is a volunteer-driven organisation and it has three founding members. Boroume does not receive or seek for sponsorships and they do not receive financial support from food donation charities.

The annual budget of the organization is 140.000 euros. They do fund-raising events in Baltimore, USA, through their affiliated organisation "Friends of Boroume" (<https://www.facebook.com/supportingboroume>). They use social media to promote their organisation (for free) as well as to raise awareness about the need for food. They also take part in events and festivals with other organisations such as WWF (World Wildlife Fund). They organised a two-day festival against food waste in 2013 and feeding 5K, and they also organised a first event in Thessaloniki in 2014.

Type and quantity of surplus food diverted from wastage

The below tables show the types and amounts of food per day which Boroume recovered from wastage.

Size of food donations, a table with type and amount of food (per day)

Size of food donations	Percentage of Total number
Less than 5 kg	10
Between 5-15kg	20
Between 15-35 kg	10
Over 35 kg less than 50kg	10
Over 50 kg	50

Types of food donation in categories	Percentage of Total number
Pre cooked dinners like nuggets	60
Bread Bakery – cake	40
Bread Bakery – cake Bake-off	20
Meat	15
Dairy products	15
Vegetables	10
Ambient food (Kellogg's, pasta, rice)	5
Canned food	5
Meat	5
Ice cream	5
Cold Cuts	2,5
Sandwiches	2,5

Obstacles and issues to consider

Boroume makes it as easy as possible for both sides, i.e. donors and recipients. The only difficulty that some recipient organisations face is that often they do not have means of transportation to pick up a food donation or enough staff or that they do not have the flexibility to pick up food late at night.

The main concern of food donors is food security.

6.3.8 FoodCloud, Ireland

The information for this chapter has been obtained from an interview, the questionnaire filled in by the organisation and from its website.



Facts about the organization

FoodCloud is a not-for-profit social enterprise connecting businesses and charities.

The FoodCloud idea in short: 1) a business registers on the FoodCloud website or using the app, 2) the business uploads information on surplus food it has and specifies the time when the food can be picked up, 3) the FoodCloud system informs the most suitable charities, located in the area about the food donation, and 4) the first charity texting back gets the right to collect the donation directly from the business.

The co-founders of FoodCloud are Iseult Ward and Aoibheann O'Brien. They met each other in 2012 and soon after started their fight against food waste. The same year Iseult and Aoibheann saw the need of technology in order *"to make the process scalable and sustainable"* thus they developed a FoodCloud mobile application (Foodcloud.ie). In the beginning, as the research material the co-founders used their master thesis. Later, in order to gain more knowledge, Iseult and Aoibheann got in touch with UK's organisation Plan Zheroes and other surplus food redistribution organisations in the UK, such as, Fare Share, Rubies in the Rubble, FoodCycle and with the Zero Procent in Chicago, U.S. In October 2013, Food Cloud launched with a couple of Tesco stores shops and a few bakeries. The store chain Tesco liked the idea; therefore, FoodCloud agreed to work with four, later, by Christmas of 2013, – with 18 stores, and currently – with 100 stores. In addition, FoodCloud are piloting the service with other national retailers.

FoodCloud have improved the system: *"Based on feedback from the charity partners, the model changed slightly for later stores whereby a charity was allocated a particular day (s) to collect the donation"* (Questionnaire FoodCloud). For example, charity "A" picks up the food on Monday, charity "B" – on Tuesday, etc. It is easier so since a big store

would always have surplus food and it can be shared with a number of charities. Whereas with smaller shops, such as bakeries, butchers, this cannot work all the time, because smaller businesses might not always have surplus food to provide for the charities.

In total FoodCloud have 9 employees who run the core operations: seven full-time and two part-time employees. The Board of Directors is voluntary. FoodCloud have over 50 volunteers, however they work on the volunteer project, *"which does not form part of our core operations <...> volunteers use our electric car to pick up two donations per evening and drop off to a charity that does not have access to a vehicle"* (Questionnaire FoodCloud).

Whom are they working with?

FoodCloud establish connections between food donors and charities by selecting businesses and charities, and link them *"based on the type of food and timing that it is available"* (Questionnaire FoodCloud). FoodCloud have a network of 300 charities, varying in sizes from very large to small. 30 % of the charities work with Food Redistribution, 60 % are Centres where food is cooked on site and 10% represent Breakfast & Afterschool clubs. 95 % of the total number of the charities are with own transportation while 5 % are without. There is no cost for donated food at charities. FoodCloud work with more than 140 Food donors. 99 % of the food donors are supermarkets and 1 % are cafes and bakeries. FoodCloud does not work with municipalities.

How does it work?

FoodCloud has office in Dublin. The staff works on communications, search for support to food donors and charities.

The mobile app and Web based platform were implemented both together. FoodCloud plan to keep both so *"anyone who wants to donate has access to both."* The reason for food donors to choose Web vs. mobile App in FoodCloud's case is that *"Network coverage may be poor in some areas (especially rural) and the website is used. Some retailers may not like employees using mobile phones during work."*

The responsibility for the food and food safety is assumed by charities, receiving the food donations. Some charities, especially the smaller ones, have difficulties *"to ensure ongoing compliance with all food safety legislation"* (Questionnaire FoodCloud).

App tracks traceability, thus FoodCloud organisation is able to see who is donating to whom. The food donations are printed – one copy for the store and one for the charity. Besides, *"FoodCloud are working on the technology to improve the ability to trace donations at a product level –*

retailers in Ireland have not had to trace food forward as they are selling to the final consumer, donating food is a new consideration for traceability” (Questionnaire FoodCloud).

Transportation is provided by charities, Food Cloud only facilitates the donation.

In the future the organisation plans to “Expand across Ireland, increase the volume and diversity of product being donated, build capacity in the charity sector to accept more donations (including provide support in logistics, food safety training), raise awareness and stimulate action on addressing food waste in Ireland.” (Questionnaire FoodCloud)

Regarding the Value Added Tax (VAT), *“FoodCloud sought advice from a consultancy on this point – who advised to assume that there is zero value on waste. The issue is not 100% clear.” (Questionnaire FoodCloud)*

Financial management of organization

As informed by Ms. Aoibheann O’Brien, *“FoodCloud receives operational income from retailers who pay a subscription fee per store to use the service. There is no charge for the charities. This income is supplemented by grant and award funding received by corporate and philanthropic funding in Ireland.” (Questionnaire FoodCloud)* In addition, the organisation seeks for and receive sponsorships. FoodCloud works with fundraising; however, they do not have a resource that is dedicated to fundraising. The annual budget of FoodCloud varies as the organisation is growing so quickly. In March of 2014 FoodCloud ran one crowdfunding campaign and they have raised €800, *“mostly due to lack of resources on our side” (Questionnaire FoodCloud).* FoodCloud themselves have to pay for *“labour, technology, text message costs and ongoing support for our network of businesses and charities” (Ibid.).*

Type and quantity of surplus food diverted from wastage

All donations are recorded by FoodCloud and each donor/recipient has a record of all donations made/received. The frequency of donations: 70% daily and 30% ad hoc.

Size of food donations	Percentage of Total number
Less than 5 kg	30
Between 15-35 kg	70

People move 2 tonnes of food per day. Donation volumes are recorded on the app by staff in stores. Ms. Aoibheann O’Brien suggests that the accuracy of recording can be improved by technology developments.

Types of food donation:

Types of food donation in categories	Percentage of Total number
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Bread Bakery – cake	50
Vegetables	20
Fruits	20
Meat	10
Dairy products	3
Ambient food (cereals, pasta, rice)	3
Canned food	2
Sandwiches	2

Obstacles and issues to consider

In FoodCloud’s experience, some of the obstacles for businesses donating food are the need for extra time to be able to donate and money for upfront resource cost and effort to change existing processes. There are also food safety and liability concerns as well as type and frequency of surplus food available (i.e. lacking demand for a business’ type of surplus food or unsuited time of picking up a donation for a charity). As for benefits, both food donors and charities are motivated to work with FoodCloud because they reduce waste, create connections within their community and save money (Questionnaire FoodCloud).

Other organisations, existing in Ireland: *"Bia Food Initiative is a newly formed charity in Ireland and are in the process of opening three food redistribution hubs across the country. FoodCloud and BiaFi are very strong partners and collaborate on establishing a strong food redistribution sector in Ireland and are working towards creating an integrated and holistic solution for surplus food in Ireland."* (Questionnaire FoodCloud)

6.3.9 Zero Desperdício, Portugal

The information provided in this chapter was obtained from Zero Desperdicio internet web page (<http://www.zerodesperdicio.pt/>) and from the questionnaire filled in by the organisation.



Facts about the organization

In 1990 Portugal created the first food bank against hunger in Lisbon on the initiative of Joseph Vaz Pinto and in 1999 the Portuguese Federation of Food Banks against hunger was formed. By 2014, twenty food banks are established in Portugal with belonging 606 volunteers and 56 employees distributing 23,803 tons of food to 355,794 people in need.

However, Portugal got some issues and misinterpretation with the EU Food Hygiene Law that was identified and remediated by DariAcordar, a nonprofit and volunteer membership organization founded in 2011, by the citizen António Costa Pereira. The organization is dedicated to prevent all

types of wasting, especially food waste as the primary goal to the benefit of social solidarity.

In 2012, the DariAcordar launched the national anti-waste campaign and movement Zero Desperdício or zero waste in English, based on a model that speedily and safely moves food surplus from donors to welfare institutions to the benefits of people in need. The project is implemented in the municipalities of Lisbon, Loures, Cascais and Sintra. Zero Desperdício was able to recover more than 340.000 meals that otherwise would have been wasted!

Type and quantity of surplus food diverted from wastage

The total number of food donors of Zero Desperdício is 116 and there is 53 charities working with this organization. The types of food donors, amounts and types of food which Zero Desperdício handles is shown in the following tables.

Types of food donors

Types of food donors	Percentage of Total number
Percent of Brand Chains	72
Supermarkets	36
Restaurant	28
Hotels	8

Size of food donations

Size of food donations	Percentage of Total number
Less than 5 kg	5.58
Between 5-15 kg	9.64
Between 15-35 kg	17.2
Between 35-50 kg	8.12
Over 50 kg	59.39

Types of food donation categories

Types of food donation I categories	Percentage of Total number
Cooked Food	28.42
Soup	23.35

Non-Cooked Food	17.76
Complements (Bread, Fruits, yogurts,...)	28.42

6.3.10 Plan Zheroes, UK

The information provided in this chapter was obtained from Plan Zheroes web page (<https://www.planzheroes.org>) and interview with Ms. Maria Ana Neves, representative of Plan Zheroes.



Facts about the organization

Plan Zheroes is a social network in the UK (based in London). The founders of Plan Zheroes are Lotti, Maria Ana, and Chris. It started with a small group of London Citizens, voting for one project that would help them make a positive impact, Plan Zheroes won. Then in 2011 London Leaders elected Plan Zheroes as one of the 15 projects to make London a more sustainable city in 2011. Today Plan Zheroes is a young registered Charity (C.I.O.), and have a great board driving the transition phase. In 2014, they have made great progress with the help from a core team of volunteers, funding from Garfield Weston, collaboration with Sustain/FoodSave and consultancy support from Cranfield Trust and Lloyds Bank Social Entrepreneurs Programme (Start-Up) with the School of Social Entrepreneurs (<https://www.planzheroes.org/#!/about>)

Plan Zheroes is proud to announce a new partnership with We Believe who will develop the Zheroes network in Liverpool.

Currently their core team is 6 persons, two part-time paid employees, 1 funded by another charity, 3 pro-bono part-time, 6 Trustees, and 4 advisors (pro-bono). They have a partner who provides all technology development.

4.7.1. Whom are they working with

Plan Zheroes works with a diverse group of clients from large to medium and small businesses, chains and individual food services (catering/corporate canteens), hospitality (restaurants and hotels), and bakeries, markets and small retail units, and diverse charities and community projects who provide food to people in food poverty.

4.7.2. How does it work

Plan Zheroes connects food businesses and charities, and reminding people that Food donations are legal in the UK. It connects users, automatic matching and works with volunteers, monitoring food

donations, communicating and consulting, and offering training programmes.

It builds relationships between food businesses and charities; communication is in a quick and simple way, and food reaches those in need, safely and conveniently.

Plan Zheroes provides a system to help connect donors with distributors, charities and community projects that can benefit from surplus food. They have a smart system which automatically matches food donors with food receivers based on specific criteria. When needed, Plan Zheroes helps connect them with transporters and volunteers.

All food products, once collected by the charity, shall be the sole property of the charity. The charity undertakes that it will comply with legal standards of hygiene in the handling, storage, distribution, preparation and serving of products, and will observe good practice and current legislation to ensure the products supplied remain safe and legal. The charity will ensure that all staff involved in handling of products will be trained in food hygiene to a level commensurable with their duties as required by current legislation.

Plan Zheroes also offers a process to help identify if a business or charity needs further assistance with food safety requirements, before they start food donations.

They have developed different packages, it may cover learning what surplus food is, how to set up a surplus food redistribution scheme to manage obstacles or learn how to make the best use of surplus food. Volunteers will have access to training and support to learn how to engage the community and change it for the better (<https://www.planzheroes.org/#!/howwework>).

Financial management of organization

The core service of Plan Zheroes is free. However, they charge a modest fee to provide bespoke services to organisations that need help with internal barriers to establish surplus food donation.

Plan Zheroes is financed from grants, paid projects, private donations, public speaking, running workshops.

Type and quantity of surplus food diverted from wastage

In the UK, 13 million people are living in poverty, while 650,000 tonnes of perfectly good food is thrown away by food businesses.

The amounts of food which Plan Zheroes diverted from wastage vary 1kgs to 50kg or 100kgs per days. However, Plan Zheroes does not deal with the food donated and does not move and record the foods donated, they refer donors to organisations that deal with their specific cases, such as Best Before, City Harvest or Fareshare.

4.7.3. Obstacles and issues to consider

Plan Zheroes mentioned that transition from a citizen movement to incorporate, sector knowledge and constant changes, funding/revenue streams for core costs, operational model are the barriers they experienced.

6.3.11 Hungary and Lithuania (partners at FoRWaRD project)

This chapter will discuss the advantages and disadvantages of the FoRWaRD project from the Hungarian Food Bank Association and Lithuanian Charitable Foundation “Food Bank” experience. The two organisations are partners in the project. It is important to include FoRWaRD project in the feasibility study because one of the ideas of FoRWaRD is a Web application, “enabling the matching of demand for food with supply for food” (Presentation Forward).



FoRWaRD is an international project under the Lifelong Learning Programme, co-founded by the European Commission. Project’s aim is “the reduction of food waste and the promotion of unsold food recollection in favour of charities, thanks to training and use of ICT resources.” (Foodrecoveryproject.eu) FoRWaRD is a platform offering “training materials and a brokering platform for the recovery of food waste” (Foodrecoveryproject.eu).

There are eight consortium members in the project. The project coordinator is Eurocrea Merchant (Italy) which is a management consulting company. The rest of the partners are: Hungarian Food Bank Association (Hungary), Avaca Technologies S.A. (Greece), Greenport Innovation Center (The Netherlands), Tempo Training & Consulting (Czech Republic), European Retail Academy (an academic network), Federation of Polish Food Banks (Poland), Charitable Foundation “Food Bank” (Lithuania). Board of directors – all of the partners are joint owners.

4.8.1. Lithuania: Charitable Foundation “Food Bank”

The first interview we had was with Mr. Modestas Bastys, the previous project manager at FoRWaRD, who currently works at the Charitable Foundation “Food Bank” in Lithuania.



It is important to look at the FoRWaRd project in more detail. There are three parts in the platform:

1. Learning tool (for store chains and NGOs) which is tailored for learning about legal issues, mechanisms, hygiene, and cooperation.
2. Exchange platform, called Brokerage platform: company + organisation. The system is not bonded to a geographical place. The platform includes a food map showing what surplus food products are available and where they are located in European countries. According to the Charitable Foundation "Food Bank", this food map is neither being developed, nor is really used. The problem is that for example, in Lithuania, supermarkets and restaurants give away the surplus food every day or according to a preliminary approved schedule, thus there is no need to have the electronic warning system. However, some companies occasionally might suggest donations of specific food products, such as mayonnaise, what means that the food is donated irregularly. Thus, the platform works only if there is a high number of different companies donating surplus food irregularly and in different cities.
3. The last part of the project is a game, teaching how food banks operate.

The whole product of FoRWaRD is very generic – developed for everybody's use. However, it meets the needs only partially. This platform is tailored for an efficient operation of organisations thus FoRWaRD would be more suitable for organisations rather than food banks.

FoRWaRd project does not cooperate with municipalities. The Charitable Foundation "Food Bank" work with municipalities very intensively because local authority institutions are great sources of information. Social departments established in municipalities usually work with local organisations. In order to increase its activities, Charitable Foundation "Food Bank" contact municipalities then mayors appoint responsible personnel and provide with the necessary help.

Regarding the development of the FoRWaRd project, Modestas Bastys says that one of the issues hampering this project from development is the need to talk individually with companies who still dump their surplus food instead of donating it. Another issue is that one platform can hardly fit to all. In case the food donation was mandatory, then the platform could really work effectively. Having in mind that just recently, May 2015, France adopted a new law imposing an obligation on supermarkets to donate their unsold food to charity, this option seems to be more and more viable. Even more so, 9 July 2015 EU Parliament called the Commission to urge donation of unsold products in supermarkets (EurActiv 2015).

6.3.12 Conclusion and future trends

Our study shows that roughly all the organizations working on surplus food are nonprofit and volunteer driven. Web and mobile applications were found as the most applicable and quick ways to match food donors and recipients.

Through this study, we will develop new social relationships between the surplus food and those in need in Denmark, and also develop a collaboration model that can be replicated across Europe.

We are planning to organize a forum for the organisations/charities working with surplus food supply in the EU so they can share experiences and knowledge. All of the organizations which we interviewed are highly interested to participate in this workshop.

The topics of interest to be discussed in the forum are:

- Adherence to food safety;
- Dissemination of good practice e.g. communication with sponsors, scheme of logistics, communication with public authorities;
- Efficient redistribution of surplus food;
- Best practices in each country;
- Stakeholders strategic priorities;
- Financial sustainability;
- Costs and value of redistribution, needs and benefits;
- Plans, business model/revenue generation, and adoption (what works and what does not) applied by organizations;
- Use of technologies and systems design, engagement and behaviour change, existing technology platforms;
- Collaboration and innovation between users and competitors, service providers and business models.

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6.4 Stakeholders

Potential partners – initial contact made with the following

- Nordic Council
- The Food Project
- Prime Minister Helle Thorning-Schmidt, and parts of the Social Democrats' top management
- Soroptimist International Denmark
- Mr Henrik Mansfeldt Witt
- International interest in the project include from The Society of St. Vincent de Paul, Portland Council, Portland, Oregon, USA, OzHarvest Australia, Zero desperdicio Portugal, Austria, Food Forward, North Hollywood, CA, USA
- DS Smith
- Agro Tech
- LeanPath United States,
- OndoDots Co. Ltd. is a StartUp company that develops APP solutions aimed at small retail stores
- Hungry.dk/giveaway
- Armed Forces - food donors
- Italian think tank, Barilla Center for Food & Nutrition BCFN
- Copenhagen Airports A / S (food & beverage)
- Chef Michael Museth from People Madhus
- 7-Eleven
- GS1 – Barcode Company
- Amager Resource Center ARC
- Danish Waste Association
- Copenhagen Madservice A La Carte
- Federation of Shopkeepers
- Meyers Food
- DEL FOOD
- Danish Supermarked and COOP
- Food Service Denmark A / S and Dagrofa S Wholesale - Catering Wholesale
- DVFA (group set up by Dan Jørgensen)
- The Whole Company A / S
- Bella Center, Copenhagen Food Fair
- MAD Symposium 2015 (NOMA)
- LIDL cooperation

Potential partners – expressed interest in being part of the project

- Unilever and Unilever Retail
- Copenhagen's drop-in center at weekends Project Homeless
- University of Copenhagen
- Large caterers
- Project Homeless
- JUST EAT
- Coop Peter Høgsted. Coop
- REMA 1000
- JCI Denmark (by Eva Hye Langkjær, National President in 2014, JCI Denmark) - contribute volunteer labour
- Agriculture and Food
- Ministry of Food Department, Ulrich Pinstrup, DVFA
- Mads Wergeland from PlanMiljø Ltd., regarding. cooperation in the Nordic Council "food banks" project in the North. Their research can benefit the surplus food project and it is wise to cooperate, especially since their action is part of the Nordic Council.
- Food Minister Dan Jørgensen and Environment Kirsten Brosbøl - both ministers are very supportive of surplus food