

# WE LOVE FOOD

## (VI ELSKER MAD)



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## Table of Contents

1. Introduction .....	1
1.1 Research Question .....	2
1.2 Sager der Samler - a platform for social innovation .....	2
1.3 Structure and Delimitations of the Thesis .....	3
1.4 Choice of Method .....	3
1.5 Choice of Theories and Models .....	4
1.6 Explanation of Central Concepts and Definitions .....	5
2. Meta-theory .....	7
3. Theories and Models .....	9
3.1 Habermas' Critical Theory .....	9
3.2 Community Participation .....	10
3.3 Communication Model - Social Marketing .....	11
3.4 Multi-Step Flow Approaches .....	11
3.5 The Four P's Marketing Model .....	12
4. Methods .....	16
4.1 Design Thinking .....	17
4.2 Community Participation - practically .....	23
5. Results and Interpretations .....	25
6. Discussion .....	31
7. Conclusion .....	35
8. Best Practice and Future Considerations .....	36
List of References .....	38
Appendices	



## **Abstract**

**Title of the assignment:** *WE LOVE FOOD*

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**Background:** Food waste is the third biggest greenhouse gas emitter causing a major environmental burden. There are forecasts that if this tendency continues, it may reduce the world's ability to fight hunger and malnutrition in the rapidly increasing world population. This thesis deals with the avoidable food waste and seeks to find potentials in our society on how to reduce food waste.

**Problem statement:** *How can we create a public health intervention through social innovation aiming towards reducing food waste?*

**Methods:** We collected qualitative data for creating the intervention VI ELSKER MAD by using the five steps of the *Design Thinking* approach. This has been done through interviews and workshops that have enabled community participation which has been the essential for a bottom up approach of the intervention. Social marketing tools have been used to communicate the message of the intervention to the people.

**Results:** One eatery has adjusted its serving sizes and is now rewriting its menu card to reduce food waste. Another has begun to sell leftover bread the following day. People have asked about the logo at the eateries and have shown acknowledgement through Facebook.

**Conclusions:** Due to the short period of time from the implementation of VI ELSKER MAD till now, the effect of the intervention cannot yet be concluded. However, some results that is already now evident to us makes it plausible to continue the work to see if VI ELSKER MAD will become an influencing factor in the challenge of reducing food waste.

## 1. Introduction

The chosen theme for this bachelor thesis is food waste with focus on how to reduce food waste. One third of all food production that is aimed on human consumption is wasted (Gustavsson, Cederberg, Sonesson, van Otterdijk & Meybeck, 2011) and it has been proven that food waste is the third biggest greenhouse gas emitter (Food and Agriculture Organization of the United Nations, 2013). Presently, this is a very much discussed issue globally. There are forecasts that if this tendency continues, it may reduce the world's ability to fight hunger and malnutrition in the rapidly increasing world population (World Resources Institute, 2013).

Europe is the second biggest contributor of all continents when it comes to food waste (Food and Agriculture Organization, 2013). The food consumption within the EU is estimated to account for 20-30% of its environmental burden, which makes it one of the three most burdensome consumptions apart from transportation and house holding. Considering the fact that food consumption accounts for such a large part of the environmental burden, wasting the food, which could otherwise have been eaten, would be an environmental burden that did not serve any purpose (Kjær & Werge, 2010).

Globally, several initiatives, such as *Think.Eat.Save* (U.N.), *Love Food, Hate Waste* (UK) and *Hands for Hunger* (Bahamas) have arose with the aim to reduce food waste and its negative impacts (foodtank, 2013). In Denmark, there is a yearly food waste per person of 88,5 kg in the household (Kjær & Werge, 2010). Presently, there are movements in Denmark such as *Stop Spild af Mad* (Stop Spild af Mad, n.d.) and *fødevareBanken* (fødevareBanken, n.d.) that are already trying to combat this food waste issue in several different ways; such as holding speeches at public and political arenas, by redistributing unsold food and by creating awareness through different channels of media.

The numbers and facts mentioned above clearly indicate that there is room for improvement in this area of environmental health and thereby public health. Reducing the environmental burden of food waste seems to be a key factor in the achievement of a more sustainable environment that consequently affects human health.

For this bachelor thesis, the point of departure will be a public health intervention, or food policy as it could also be mentioned, called *VI ELSKER MAD* (in English - *WE LOVE*

*FOOD*). It has been created in Aarhus, through innovative methods of intervention making, with the vision of reducing food waste locally.

### 1.1 Research Question

The will to approach the food waste dilemma arose, seeing all the negative impacts it has on the environment and the global population. Hence, a wish to approach the issue in a innovative way occurred. Through our final internship as public health students, we carried out a fieldwork study based on these food waste issues, which resulted in the research question for this bachelor thesis:

***How can we create a public health intervention through social innovation aiming towards reducing food waste?***

The research question consists of five major elements - the creation of an **intervention** through **social innovation**, aiming towards **reducing food waste** through **community participation** and the **communication** strategy used to create awareness about the intervention. These key elements will be explained in detail in this thesis.

### 1.2 Sager der Samler - a platform for social innovation

Our final internship as public health students took place at *Sager der Samler* - in English - *Causes that Connect*. Sager der Samler is a fairly new association of volunteers who wish to change the society towards a healthier direction. In this connection, health is seen from a broad perspective: social health, environmental health and physical health. The association was established by a group of people who are driven by innovative leadership. Its vision is to form a platform for active citizenship where unforeseen meetings between authorities, companies and regular citizens can happen. In this way, there would be a possibility of finding solutions for problems from professional as well as human perspectives. The three core principles of Sager der Samler are:

- to connect people who personally wish to make a difference
- to mobilise around a cause so that it becomes understandable for everyone and facilitates action and
- to learn and act together as co-citizens

Sager der Samler takes departure in two tendencies of our time where people desire to participate actively in fulfilling their needs, and moreover, the desire for cross-disciplinary work that enables a bottom up approach to find solutions for challenges in the community. People who either have passion, professionalism or experience within any area regarding the municipality of Aarhus have the opportunity to get together to improve life quality among the citizens and strengthen the fellowship. The focus areas are health, fellowship and sustainability in Aarhus (Sager der Samler, n.d.).

### 1.3 Structure and Delimitations of the Thesis

The thesis is primarily built upon the fieldwork that has been carried out in connection with VI ELSKER MAD. The basic idea behind the process is community participation in which the aim is to involve and activate the local citizens of Aarhus. As a tool to achieve this, we have made use of the Design Thinking approach that has been followed step by step, leaving room for creativity within the given frame. The Design Thinking approach and community participation will be elaborated in the sections *Methods* and *Theories and Models*.

### 1.4 Choice of Method

#### *Field work*

This thesis is built up upon fieldwork carried out in the creation of the intervention VI ELSKER MAD. The data is primarily gained from this fieldwork where we collected our own qualitative data through interviews, workshops and observations in the city of Aarhus. The interviews, workshops and observations are further outlined and described in detail in the *Methods* section. Furthermore, relevant literature is included to support the choice of method and to clarify the focus of the thesis. The manner in which the literature has been found will be explained in the section *Choice of theories and models*.

## *Design Thinking*

The working method that has been used to carry out the fieldwork for VI ELSKER MAD is known as the *Design Thinking* approach. We got introduced to this approach at Sager der Samler (see Appendix 1). We used this approach from the very initial stage of the creation of the intervention. This approach is human centered and derives from *IDEO* which is a global design consultancy firm (IDEO, 2013). The approach is described as;

*“Design Thinking incorporates constituent or consumer insights in depth and rapid prototyping, all aimed at getting beyond the assumptions that block effective solutions. Design Thinking (...) addresses the needs of the people who will consume a product or a service and the infrastructure that enables it.”* (Brown & Wyatt, 2010, p 32).

Making use of a human centered approach in the creation of a public health intervention seems appropriate, since the intervention is targeted at the citizens of Aarhus. VI ELSKER MAD has been designed from a five step Design Thinking model:

1. *Empathy*
2. *Define*
3. *Ideate*
4. *Prototype*
5. *Test*

(Institute of Design at Stanford, n.d.).

Each step is further elaborated in the section *Methods*.

## **1.5 Choice of Theories and Models**

For this thesis, different kinds of theories and models are included. The chosen meta-theory is *Grounded Theory*, as the method used for generating the data for the development of VI ELSKER MAD is reflected in *Grounded Theory* (Birks & Mills, 2011; Mills, Bonner &

Francis, 2006). We became aware of Grounded Theory while studying literature on data collection and the Design Thinking approach.

We will also briefly introduce the *lifeworld* and *system world* theory of Jürgen Habermas and his critical view on the society seen from these two angles (Andersen & Timm, 2010). Hereafter, we will relate this to the thoughts behind VI ELSKER MAD. This critical view will be integrated in the section *Discussion* where the shift between the current food paradigm to the forthcoming is dealt with. We have been introduced to Habermas' through our course and have searched for literature on his theories as his critical views can be related to the focus in this thesis.

As a tool to fulfill our wish to make a bottom up intervention, we have made use of *community participation* (World Health Organization, 2002). This concept can be regarded as a theory as well as a method. The basic ideas of community participation will be introduced in the section *Theories and Models* and it will be explained how it has been used practically in the creation of VI ELSKER MAD in the section *Methods*. We experienced the concept and use of community participation through our internship at Sager der Samler, and have following searched for relevant literature suitable for our intervention.

For the communication of the VI ELSKER MAD, we have made use of the social marketing model *Multi-step Flow Approach* and *McCarthy's four P's* (Windahl, Signitzer, & Olsen, 2009). The literature used in this connection derives from communication lessons that have been conducted during our study course.

## 1.6 Explanation of Central Concepts and Definitions

Throughout this thesis, several central concepts and terms are used which in this section will be explained and defined, in order to be able to understand their relevance to the context.

As it is evident in the research question, the thesis is dealing with central terms such as *public health intervention*, *social innovation* and *food waste*. When exploring the central definitions for the terms that are essential for this thesis, it occurs that the definitions may vary according to the context in which they are used. Therefore, the explanations and definitions used in this thesis are selected to match the content and focus as much as possible.



The term **public health** is broadly defined according to the *World Health Organization* as following:

*“Public health refers to all organized measures (whether public or private) to prevent disease, promote health, and prolong life among the population as a whole. Its activities aim to provide conditions in which people can be healthy and focus on entire populations, not on individual patients or diseases. Thus, public health is concerned with the total system and not only the eradication of a particular disease.”* (World Health Organization, 2013).

The term **intervention** when it is used in connection with the term *public health* is defined as:

*“The term interventions can refer to all the possible actions that can be identified to address a health issue. It is the answer to the question “what could be done about the problem” and*

*“An intervention is one which is delivered to specification. Interventions need to be specified, as a minimum, with regard to the evidence of their effectiveness, the population group to be targeted, the context and vehicle for delivery, and quality. The intervention should be based as far as possible on scientific evidence, expert opinion and practical experience.”* (National Public Health Partnership, 2000, p 7).

The term **food waste** is generally defined as:

*““Food” waste or loss is measured only for products that are directed to human consumption, excluding feed and parts of products which are not edible. Per definition, food losses or waste are the masses of food lost or wasted in the part of food chains leading to “edible products going to human consumption.””* (Gustavsson, Cederberg, & Sonesson, 2011, p 2).

However, the following definition more specifically describes the type of food waste that this thesis has in focus:

*“Food Waste: waste generated during the preparation of meals and any food that is not consumed. It includes food that has been thrown away not used or partly used. It does not include packaging materials.” (Mills & Andrews, 2009, p 5).*

The term ***social innovation*** is defined by *Stanford Graduate School of Business - Center for Social Innovation* as follows:

*“A social innovation is a novel solution to a social problem that is more effective, efficient, sustainable, or just than present solutions and for which the value created accrues primarily to society as a whole rather than private individuals.”(Stanford Graduate School of Business, n.d.)*

The concept of ***community participation*** consists of two terms. The term *community* is defined as:

*“a group of people who share an interest, a neighborhood, or a common set of circumstances. They may, or may not, acknowledge membership of a particular community.” (World Health Organization, 2002, p 9).*

The term *participate* is quoted as:

*“a process by which people are enabled to become actively and genuinely involved in defining the issues of concern to them, in making decisions about factors that affect their lives, in formulating and implementing policies, in planning, developing and delivering services and in taking action to achieve change.” (World Health Organization, 2002, p 10).*

## **2. Meta-theory**

VI ELSKER MAD is a human science based intervention with a hermeneutic approach where the intervention is created through the mutual understanding between the people involved. A hermeneutic approach does not allow one to have a predetermined opinion about the matter

that is to be dealt with as this does not give room for shared understanding. Instead, the focus will be on an aspect of the people's life that are involved (York University, 2005).

In the creation of VI ELSKER MAD, many of the principles of Grounded Theory, which could be said to have a hermeneutic fundament, have been utilised. Therefore, it makes the meta-theory of this intervention. Grounded Theory is a research method where data collection is the core element in the creation of a theory that explains a process associated with a phenomenon. This is in contrast to other research methods, where the researcher usually initiates his or her research by taking departure in a hypothesis (Birks & Mills, 2011). A researcher using principles from Grounded Theory goes into the field without any preconceptions. Instead, his or her focus is on the data that arises from the stories that the participants tell about issues that is within the area of interest of both the researcher as well as the participants. Hereafter, the researcher processes the collected data and translates them into codes, concepts and categories and eventually, he or she will arrive at the final theory (Mills, Bonner & Francis, 2006).

The entire process of data collection for Grounded Theory is illustrated in the figure 1 below. The bottom cogwheel shows elements that enable the researcher to generate data. The two small cogwheels help to raise the level of theoretical sensitivity and take it to a step above the descriptive level. The top cogwheel is the level of advanced coding where the researcher will find out whether the grounded theory comes together or not. These three cogwheels are lubricated by the memos written through the research process and if some of the elements of the small cog wheels are lacking, there is no possibility of completing a grounded theory (Birks & Mills, 2011).

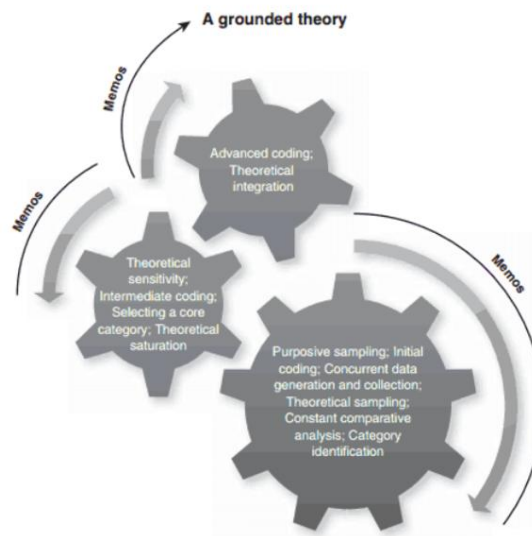


Figure 1. The figure shows the process of Grounded Theory through a cogwheel illustration (Birks & Mills, 2011).

This mode of research is reflected in the process of the creation of VI ELSKER MAD throughout the different steps of the Design Thinking approach.

### 3. Theories and Models

The driving force and interest for creating an initiative that aims to reduce food waste, as intervention makers as well as regular citizens, is based on the facts and numbers proving the negative consequences that are caused by food waste. However, what may be just as relevant to look into is how the current systems operate and contribute to the way food is produced in contrast to how it could and or should be produced. We will make use of Habermas' critical theory on *lifeworld* and system world and also look into the previous and present paradigms to explain the way the current systems operate.

#### 3.1 Habermas' Critical Theory

Habermas is focused on including moral and solidarity in the society rather than focusing only on the aim itself and how to attain it. He distinguishes between *lifeworld* and *system world*, where *lifeworld* is based on the social norms, the individual and his or her self-realisation as

well as understanding towards others. The *system world* is represented by the economic and political administrative systems where money and power produce action that the regular citizen would not be capable of producing him or herself. Habermas is critical towards the *system world* as he sees the development of this system world as a threat to the *lifeworld*, reducing the human and social aspects of the society (Andersen & Timm, 2010). In the section *Discussion*, we will draw parallels between Habermas' critical theory, the shifting paradigms and the thoughts behind the creation of the intervention VI ELSKER MAD.

### 3.2 Community Participation

Community participation plays an essential part in the creation of VI ELSKER MAD and can in other terms be explained as the involvement of the citizens in a project within their own community, neighbourhood or a group of population. A very major aspect of community participation is the empowerment of the citizens, by actively involving them in processes that will affect themselves and the community that they live in. It creates reliability between the professionals and the citizens through the equally shared responsibility that each participant holds. The citizens' contribution may encourage them to act in the community and enable them to develop their own skills. Community participation can help promote building the capacity within a particular population. Within health promotion, knowledge sharing between the professionals and the citizens is crucial for the process of capacity building. This may facilitate future development within public health (World Health Organization, 2002).

For the professionals, also, community participation helps targeting more precisely and effectively, thereby enhancing their susceptibility towards the needs of the community as well as increasing the likelihood of a successful outcome of their work. The decisions that are made in cooperation with the citizens are more likely to be long term as it is already known at the point of decision-making that the citizens agree with the solutions. It can enhance democracy and evens out inequality. It gives room for innovation and creativity. Community participation is therefore a two-way process where all involved part takers, i.e. the citizens, local authorities, communities, health authorities and other local organisations are equal shareholders in giving priority (Ibid.).

To sum up, community participation enhances the citizens in cooperation with the authorities to have an impact on their own life and the decisions made, that affects their lives within the community.

### 3.3 Communication Model - Social Marketing

From the beginning of the development of VI ELSKER MAD, communication has been a penetrating and inevitable tool – i.e. the communication between us as professionals and the citizens, communication with the eateries and communicating with the press and social media in order to target as broadly as possible. For each small step, we have considered the best means of communication geared to whom we were to get into contact with and what we wished to gain from the communication. Several levels and methods of communication has been utilised through the development of VI ELSKER MAD which will be described in detail in this section.

Social marketing is usually used for less profit oriented causes where the focus is not on competition. This model is very applicable to VI ELSKER MAD since it is a nonprofit cause that does not intend to compete with any similar initiatives, while it also aims to stimulate the interpersonal communication between the target group and the recipients of the message. The essence of social marketing is to change a certain behaviour (Windahl, Signitzer, & Olsen, 2009 pp 122-129). In the case of VI ELSKER MAD, the aim is to inspire the target group to change their behaviour of wasting food. According to Kotler, social marketing is described as:

*“(...)social marketing is the design, implementation, and control of programs seeking to increase the acceptability of a social idea or cause in target group(s). It utilizes concepts of market segmentations, consumer research, concept development, communication, facilitation, incentives and exchange theory to maximize target group response.”* (Kotler, 1982, p 490, from Windahl, Signitzer, & Olsen, 2009, p 123).

### 3.4 Multi-Step Flow Approaches

At the event *Sammen om Sundhed - Working together for health*, which was conducted by Sager der Samler, the objective was to gather the citizens to start initiatives to improve the



general health of Aarhus (see *Community participation - practically* in the section *Methods*). Here, a communication environment was created where people could connect with each other by sharing thoughts, ideas, frustrations and curiosity about their areas of interest (see Appendix 2). This is in concordance with the theoretical approach *Multi-Step Flow* approach where the receivers gain their knowledge through a community environment, mass media and interpersonal channels. The advantages of using the multi-step flow model is that mass media and interpersonal communication are connected, whereas the opposing approach of using only the media as the dominant means of communication does not have the opinion leaders as facilitators of the communication of the idea to the target group (Windahl, Signitzer, & Olsen, 2009, pp 69-77).

In the case of VI ELSKER MAD, the opinion leaders are the eateries that are more updated about what is going on in the catering area. Furthermore, they are in closer contact to the intervention creating group as they get first hand information and they also get the opportunity to participate in the creation and development of the intervention. Hence, they will be in the role of mediating the message to the customers who see the logo in the eateries where they will transmit the information and knowledge they have received. They hereby become the opinion leaders (Ibid.). They can act as either active opinion leaders who tell the customers about the concept of VI ELSKER MAD or they can be passive by telling about it when asked. In the particular case of VI ELSKER MAD, the opinion leaders are more likely to act as passive opinion leaders, as it is required that the person who becomes aware of the logo, the informative leaflets or the certificate placed in the eateries - the products of the intervention - takes the initiative to enter into a dialogue with the opinion leader (see Appendix 3).

### **3.5 The Four P's Marketing Model**

In connection with the use of social marketing, *The Four P's marketing model* by McCarthy is helpful to target the target group effectively. The four P's stand for *product*, *price*, *place* and *promotion*. In the elaboration below, a fifth P, *positioning* is added by another author, Solomon, will also be included. McCarthy's Four P's marketing model is defined as:

**Product** - The product can be an idea, a practice, a service or a thing. A clear understanding of the product and the perception the target group must be developed. A product may be more tangible if it is attached to a physical product (Windahl, Signitzer, & Olsen, 2009, pp 122-129).

The product of VI ELSKER MAD is a logo, the criteria, informative leaflet and a certification that wishes to reduce food waste among eateries, its customers and the general consumers as a part of the global food waste issue (see Appendix 3). VI ELSKER MAD aims to make the target group aware of the food waste issue in a positive way to change their behaviours when it comes to food handling. The physical products attached to VI ELSKER MAD are as follows:

- Some places offer a doggy bag for leftover food that the customer cannot eat. This is free of charge.
- Some eateries sell the leftovers cheaper at the end of the day or the following day which gives the eateries as well as the customer some benefits. The eateries will have less waste and earn a little amount of money on what they would have otherwise thrown away and the customers can get good quality food for a cheaper price.

**Price** - This is what is paid by the user of the product which is not necessarily measured in money but rather what the user must invest in terms of time and energy to obtain the product. As the planners of the product it will be beneficial to lower the perceived cost of the product for the user and increase the perceived benefits (Windahl, Signitzer, & Olsen, 2009, pp 122-129).

VI ELSKER MAD has a two-sided dimension to the price. One is the eateries who hold the logo, the criteria and certificate and the other is the customers and regular consumers who become aware of the logo. It is currently free of charge for the eateries to obtain and hold the certificate. The price that they pay is the time that the owners and staff spend being co-creators of the intervention by giving their ideas and feedback throughout the process of designing VI ELSKER MAD. The regular consumers must actively seek for further information once they have become aware of the existence of the intervention. They must

spend time and energy to ask for the doggy bag as it is not offered automatically by the waiters or staff. Hence, it is the consumer's choice and responsibility to gain the benefits of the intervention.

**Place** - The place is the channel through which the product is made accessible to the consumer. By knowing the habits and behaviours of the target group it makes it possible to determine which channels to use (Ibid.).

While planning of the place to communicate VI ELSKER MAD, the focus was on finding eateries with a green profile. This selection was done to create the right perception of the intention behind VI ELSKER MAD, which is a better environment. The eateries are presently all located in the centre of Aarhus which could help reaching as many groups of the population as possible.

**Promotion** - Promotion is the choice of medium and arguments that has been selected to communicate the message in the right way to the people in target. It is a step above creating mere publicity as it serves to reach its target group with a certain message at the right time (Ibid.).

In the promotion of VI ELSKER MAD, several different kinds of media have been used. As the aim is to reduce food waste in general in the households and eateries, we chose to promote it on the social media *Facebook*, as this would reach many different groups of the population and be equally available for all. We invited the local TV stations and newspapers for the launching of the intervention to reach people who would read newspapers and watch television. In the visual layout of the logo, it was decided to integrate the key thoughts behind the logo; *Less Waste, More Social Responsibility, Good Quality and Freshness*. These were also thought of as an informative message about what the logo meant and aimed at and also as a reliability creating tool that would communicate the action of reducing food waste as positively as possible. Also, at the launching of the logo at the different eateries, the product was promoted by interacting orally with the customers. The interaction occurred as the guests were curious about the logo and certificate and started asking questions about it.

Another way that the intervention was promoted was through other channels such as *Vores Omstilling* (Vores Omstilling, n.d.) and TV2 Østjyllands website (TV2 OJ, 2013). Lately, Aarhus Stiftstidende published an article about VI ELSKER MAD and furthermore, the product was promoted in a corporation with students from *The School of Architecture* (Aarhus) where VI ELSKER MAD was a part of their visual installation that was located downtown of Aarhus (see Appendix 4).

A fifth P that has been added by another author, Solomon, is mentioned is **Positioning**. It is described as how the users of a product see the use of it in relation to another product (Windahl, Signitzer, & Olsen, 2009, pp 122-129). This idea can be related to VI ELSKER MAD in two ways. One is that as much as reducing food waste is a necessity to promote sustainability and balance in our environment, it also gives the person who actively tries to reduce the food waste other benefits. For instance, saving a remarkable amount of money if food is used to its fullest, less food preparation if storing the leftovers for another meal, less grocery shopping if one freezes food etc. would be the personal additional gains. Another way of seeing it is to relate the intervention to other similar interventions. As mentioned previously, publicity and competition is not the aim of VI ELSKER MAD. However, it may be effective for those who do not find inspiration in the other types of interventions and movements that already exist.

The first meeting we had with regular citizens in the step *Empathy* of the Design Thinking approach was planned around the table with the participants in the project (see the section *Methods*). It was decided that meeting people on the go having no scheduled plan would be the best way of getting their true views and a more real insight in their relation to food and waste. We went to eateries and kitchenware shops to find people to speak to. The reason for selecting these kinds of places was to create an appropriate atmosphere for the topic being taken up. No structured questionnaires or questions had been developed prior to the meetings. However, overall topics to be discussed were clear: people's relation to food and their opinion and practice in relation to grocery shopping, food preparation and wasting food. Furthermore, no recording was done to make the conversation as natural and comfortable as possible for the person we spoke to. We put down notes with essential information that we gained from them and asked for permission to take a picture of them for our own documentation.

From here, we went back to our office at Sager der Samler to organise our information, documentation and the data and spoke about the different interviews as we had gone out into two groups. We used the social media Facebook and the web-page of Sager der Samler to invite people for the next step in the working process – the step *Define*. We chose these means of communication to reach as many as possible who might be interested in food waste reduction. Facebook helped us to reach people we had not met yet whereas the website of Sager der Samler helped us reaching the people who already knew about the association and its visions and working methods. Through this we expanded our project group and could work more cross disciplinary. At this stage, we had people with skills within entrepreneurship, public health, kitchen management, people with expertise within leadership, and generally curious and passionate citizens.

We got our participants for the step *Ideate* through the use of Facebook, the website of Sager der Samler, but also by contacting people that we knew from our education and private life. The use of Facebook had already at this point reach so far that the biggest Danish movement against food waste, Stop Spild af Mad, contacted us to hear about our project (Stop Spild af Mad, n.d.).

## 4. Methods

### *Field work*

The qualitative method was chosen in order to get an understanding of the citizens of Aarhus and to know their opinions and views towards food and food waste in general. Also, the aim was to include the citizens in the process of creating the intervention VI ELSKER MAD during the different workshops that were held, where the citizens had the opportunity for participating and contributing with ideas. The qualitative interviews were carried out at random eateries where we interacted with the owner, chef, employee or the guests at the given place. The reason for targeting eateries seemed logical since it was the attitudes towards food that we wished to explore. The broad selection of the citizens gave us the possibility of receiving as many diverse views on the food waste issue as possible. No specific questions were prepared for the interviews. Instead, these were seen as standard conversations where the questions occurred naturally along the way. Nonetheless, there was an overall theme for the

conversations and the questions consisted therefore of attitudes towards food and waste. The answers we received were written down and processed and contact information was established.

The workshops that were held were in connection with the third and the fourth step of the Design Thinking approach (the content of those workshops are specified in the *Methods* section). They were arranged by sending out invitations and posting it on the webpage of Sager der Samler and on their Facebook page. The ones who were interested could sign up for the workshop. The use of workshops as a method gave us the opportunity to include the citizens and broaden our understanding which left room for more creativity with the new inputs and ideas for the creation of the intervention. Building new relations was yet another advantage of this method.

Observations of several eateries were made along the way. For instance, we observed what was left on the plates at the eateries, but we also observed what the eateries were doing actively in order to reduce their food waste - one of them was selling leftover bread the day after. The advantages of observations as a working method provided us with a realistic picture of people's behaviour and their actions. By observing them, we had the chance of testing whether what they said corresponded to what they actually did, when it came to limiting their food waste.

#### 4.1 Design Thinking

As mentioned in the section *Choice of Methods*, the Design Thinking approach plays a big part in the creation and development of VI ELSKER MAD. The following section describes five steps of the approach in detail and what has been done practically to create the intervention.

##### *1. Empathy*

In this primary phase, the objective is to acquire an understanding of the people that the intervention is targeted at. The core is to understand what people do and say - and in which way. Hereby, empathy on who they are and what is important for them can be gained. This can be done through observing them and engaging with them in a conversation and



furthermore, combine these two methods by being physically with them to see if what they say and what they do correspond to each other or not (Institute of Design at Stanford, n.d.).

At the very initial stage of the creation of VI ELSKER MAD, we went out in the local area of Aarhus downtown to engage ourselves with the local citizens, who were the target population of the intervention. We strived to be as open-minded as possible by excluding any preconceptions and prejudices that we might have had, in order not to limit ourselves from the insights and information these people could give us. We went to random cafés, bakeries, kitchen ware shops to speak to people about their relation to and attitude towards food - grocery shopping habits, consumption and waste.

The people that we interviewed were from various different parts of the country, different backgrounds, ages and both male and female genders. We did not prepare a large set of structured and specific questions for the conversations. However, we had two open-ended questions that were consistently asked;

***What is your attitude towards food? and What is your attitude towards food waste?***

The open-ended questions asked provided us with their thoughts and views on the topics food and food waste that we wanted to explore with them. A general attitude among the people we spoke to was that they were very passionate about food and that they had an opinion towards wasting food. Also, another attitude was that some were raised with having leftovers as children and avoided wasting food by freezing it or eating it the day after, among others (see Appendix 5).

A useful way of creating a good overview of all the insight and data gathered at this stage is to visualise it. Hence, we took photographs and wrote down notes from the conversations with the people we spoke for several purposes. One was to remind ourselves easily of the conversation and another was to be able to contact and involve them for the further processes of creating an intervention.

At this point, we did not have a clear idea of the final intervention, nor of its name. Nonetheless, we had acquired a good amount of data that could help us getting to the next step of creating an intervention.

## 2. *Define*

At this stage, the task is to define the elements identified information collected through the step *Empathy*, transforming the data from it into strong insights. The most outstanding statements and statements that rouse a special curiosity are extracted here. The aim of this step is to delimit the comprehensive information and thereby define a clear problem statement, with the likelihood of leaving the designer with a valuable new insight. It is important that the problem statement is made in a way that is able to inspire and empower the team (Institute of Design at Stanford, n.d.).

After carrying out the step *Empathy*, we invited people interested in participating in the intervention creating process and interpreted the collected data with them. Each person got an opportunity to express what he or she had understood from it. Hereafter, the task was to write down the main elements and themes that each of us saw in the collected data. These were written on post-its and put on a large white sheet. The themes are outlined in the section *Results and Interpretations*.

At the end of this meeting, we concluded from all the topics discussed that a good focus question for the further development of the intervention would be; *How do we make less food waste more trendy?* Having created this focus question, we were ready to move on to the third step of the Design Thinking approach which is *Ideate*.

## 3. *Ideate*

This aim of this step is to find solutions for the problems that were identified in the *Define* step. Ideate is an idea generating phase that has the purpose of widening the range of ideas within the given focus question. At the end of this step, material for the development of prototypes should be gained (Ibid.).

We conducted this step as a workshop for which we invited citizens who wished to engage themselves in this project. The invitation was available on the webpage and Facebook page of Sager der Samler. Ten participants signed up for the workshop of which a few had already participated in the *Define* phase. For the workshop, to visualise and to create the right atmosphere around the topic *food waste* we, as the initiative takers, went to different groceries such as *Superbrugsen*, *Rema1000* and the bakery named *Nummer 24* (see Appendix 6) to ask if they had any edible but discarded food items that they would like to donate for the ideate workshop. They showed their support by letting us into their storage room and providing us with whatever fresh food we could find. We had more than enough to feed all the participants. While presenting the agenda of the workshop it was agreed on that we should change the focus question from “*How can we make less food waste trendy?*” to “*How can we make it mainstream to waste less food?*”. This change made the purpose of the project more long termed. The workshop continued with exercises where we brainstormed ideas by using different methods such as rotating from one person to the other, coming up with new ideas in the spot and writing them down on post its. The target of this exercise was to get as many ideas as possible, regardless of their usefulness. These ideas were categorised and afterwards each person could choose the category that he or she was interested in. From here, the participants were split up in groups and started creating prototypes for each category. The outcome of the suggested prototypes is outlined in the *Results and Interpretations* section.

#### 4. Prototyping

A prototype is a quick and cheap way of testing an idea. The aim is to interact with the target population and people involved in the intervention about something that they can relate themselves to and to be a part of. Basically, the intention is to communicate the idea as a problem solving solution and to build a relationship by interacting. Since the prototype is low-cost and tested quickly, it gives room for failure and correction (Institute of Design at Stanford, n.d.).

This step was arranged as a meeting where the invitation was available in the same manner as in the previous step. There were seven participants. From the occurred ideas from the *Ideate*

step, the idea with the logo for eateries was taken up. We decided to split up into two groups of which one worked on the visual part of the logo and the other part worked on the content of it. For visual inspiration, the group looked through magazines and papers to find logos and inspiration for a logo that would communicate strongly and clearly to the target population. The other group found inspiration in other food policies and gained knowledge from a chef who also participated on how food items are managed and measured in a kitchen. Afterwards we introduced each others to what we had worked on and found out, and gave feedback on and inputs to the ideas. We made a big poster with the outcome of the meeting and made criteria and a logo for our prototype. Now we had material that we could present to the eateries and were ready to receive their feedback (see Appendix 3).

We went out to the eateries with our prototype and presented our criteria and the layout of the logo to include them in the process of developing the prototype but also to get feedback and ideas for improvements for the prototype. As we presented it to them, each one of them gave us different opinions and suggestions to changes that could be implemented both within the visual layout of the logo but also in the criteria. Some of the suggestions were that the colour of the layout should be more intense to make it appear stronger and another was to rearrange the text in the logo in a way where the letters were more readable for the user. Suggestions to the criteria were that instead of having the focus on how big a percentage of food waste the eateries were allowed to have, the focus should be on *how* the eateries could reduce their food waste. The initial idea of having limited percentages on how much food waste they were allowed made it difficult to measure in the first place because most of the food waste that the eateries were having, was not in the kitchen but on the costumers' plate. If the consumer did not finish his or hers food, the leftovers had to go into the bin because of hygiene regulations. This would inhibit the eateries in practicing ideas that could actually reduce their food waste.

We went back with the feedback and made changes in the layout of the logo and the criteria to create a more realistic prototype that the eateries could implement. The final product of the logo and criteria are presented in the section *Results and Interpretations*.

## 5. Test

At this final step the prototype has been implemented. It is in some way similar to the step *Empathy*, as one has the opportunity to receive feedback from the users of the intervention.

However, this step gives a more qualitative empathy creating atmosphere as there is now a concrete prototype which will give the users something palpable to give their feedback on, which may also create credibility between the users and the innovators. Furthermore, understanding on why the users like or dislike the intervention will give more tools to refine and improve the prototype in order to find the best solution for the problem that has been taken up. It may even be necessary to go back to one of the other prototypes if it shows that the firstly selected prototype was not the right one for the solution of the given problem statement. Furthermore, this step helps to gain a broader understanding of the user and the challenges that lie behind (Ibid.). The problem statement for our intervention was *How do we make it mainstream to waste less food?*

We implemented our intervention at seven eateries, by sticking our logo on their windows, putting information leaflets, hanging a certificate inside the eateries, and handing over the criteria for having the logo to the owners of the eateries. The seven eateries are listed below:

- Café GLAD!
- Nummer 24
- Langhoff & Juul
- Drudenfuss
- MellemRum
- Komfur
- Suppestegogis

(see Appendix 7)

Already at the implementation of the certification at one of the cafés, we had the opportunity to interact with the customers. They expressed their curiosity and we explained the ideas and intentions behind the certification to them and got their feedback. To reach more people, we contacted the press i.e. local newspapers and TV-stations to come for the launching. Furthermore, we created a Facebook page available for everyone where we updated information about the certification and put updates on all the eateries that had got the certificate. This also gave us a chance to interact with the users and get their feedback.

#### 4.2 Community Participation - practically

In the creation of the intervention VI ELSKER MAD, community participation has been essential. The volunteer association Sager der Samler, located in Aarhus, was the unit that provided the settings to work on this environmental challenge, i.e. food waste, on a local community level. *Sammen om Sundhed* was a workshop conducted by Sager der Samler that literally gathered citizens as well as the municipality of Aarhus to work on improving different areas of health within the municipality of Aarhus, that the citizens had an interest in engaging themselves in (see Appendix 2). This gave us an opportunity as common citizens as well as public health students to take up the challenge of reducing food waste within Aarhus. There were 90 participants at the workshop and 14 initiatives were born (Sager der Samler, 2013). One of them was our food waste reduction initiative where five other people, passionate about food waste reduction, joined us for further future work. Already at this initial step, the involvement of the citizens had evidently been proved to be the essential tool. In the section *Methods*, the complete process of creating VI ELSKER MAD is based on community participation will be outlined.



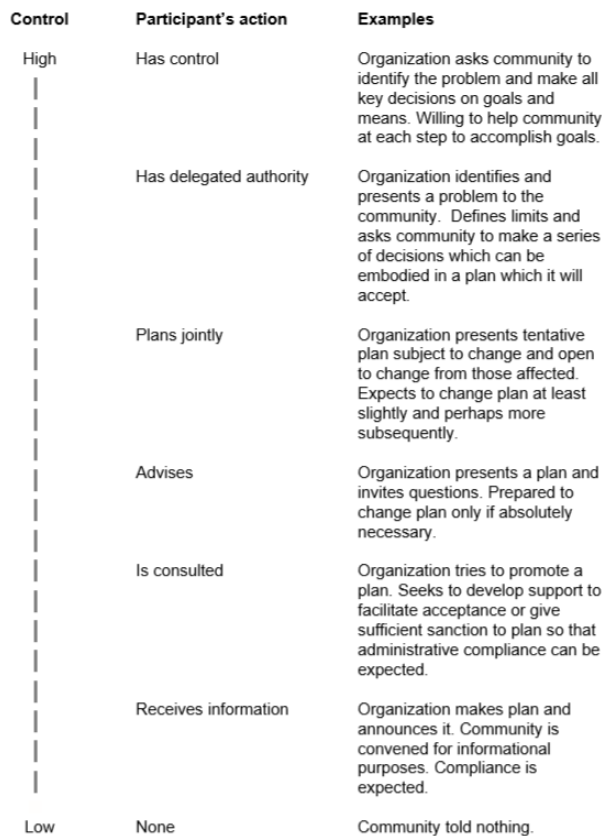


Figure 2. A ladder of community participation illustrating the different levels of participation (World Health Organization, 2002).

Community participation, as the word clearly indicates, is the involvement of the citizens in a given process in the community. Yet, there is not one particular way of doing this. Many levels of community participation can be seen, ranging from low community participation to almost merely the community identifying the needs, deciding the actions to be done and carrying out the process. In figure 2, this is illustrated in the form of a ladder.

It may not always be possible or appropriate to reach for the highest level of community participation. It will be dependent on the matter in focus and the aim to which extend the levels of participation can be and in which phases they are to be involved (Ibid.).

In VI ELSKER MAD, the level of participation in the step *Empathy* could be said to be within the sixth step from the bottom of the ladder *has delegated authority* as we, representing the organisation, present the issue in focus to the local community and receive their words as our primary data as building bricks for the intervention.

The *Define* step could be said to be within the sixth *has delegated authority* and the seventh *has control*, as the participants have the control in defining the topics and themes that are interpreted from the collected data. However, if we see our own function as an organisation, the level of participation would be in between these two steps.

The step *Ideate* is more within the seventh step *has control* as it is merely based on the activities and ideas of the participants of the workshop, and due to the fact that the idea that the participants liked the most was taken up for further development.

The step *Prototype* resembles the *advices* step, as the prototype has already been created. It is presented to the eateries and the feedback for the prototype is taken into consideration and used for improving the intervention while major changes are not likely anymore.

Finally, in the transition from the step *Prototype* to the step *Test*, the extent of participation is complicated to identify in the ladder as the intervention is implemented by us, the organisation. However, the feedback from the local community is essential for the evaluation and further development of VI ELSKER MAD.

## **5. Results and Interpretations**

The results from our fieldwork in the process of creating VI ELSKER MAD are gained through the five step approach of Design Thinking. As it is clearly evident from the methods used to develop this intervention, the participation of general citizens has been essential throughout the entire process. Hence, the results have been processed and interpreted in cooperation with the people who participated in the different steps. The results and interpretations from each step are presented in the section.

### *Results from the step Empathy*

The first results in the Empathy phase derives from the answers that were drawn from the two questions: *What is your attitude towards food?* and *What is your attitude towards food waste?*. The results are listed below:

- Some came from a background where they did not eat leftovers.
- Some had always been used to having leftovers from childhood.
- Some made plans for the week on what to cook.
- Some were used to freeze leftovers.
- One felt that wasting good quality food was too expensive.
- Some chose to do their grocery shopping at stores that had focus on less food waste, through for instance developing an app that not having buy more pay less offers.
- One said that food waste was inevitable.
- Some said that it had been a process of learning after he left his parents, how to manage his grocery shopping food and how much food to buy to a single person.
- A baker had his focus on sustainability which made him do his best to pass on his leftover food to other people. Throwing away the food would actually be cheaper for him, yet it was not in his interest to throw away fresh food. (see Appendix 5).

The results have been translated to English.

#### *Results from the step Define*

The most outstanding topics from the step *Empathy* are extracted and put into themes.

- *Taboos around food waste:* Some mentioned that buying products that had got a price reduction due to the fact that they were close to the “best before” date could be embarrassing, as others who saw it would judge them as miserly or disgusting.

- *The responsibility of the food industry.* The food industry produces more than what is needed as too much of the production is being produced just to be wasted.
- *The waste of single households:* According to Stop Spild af Mad, single households waste 98,8 kg on an average in Denmark (Stop Spild af Mad, n.d.). This is caused by the persons not being able to eat up the purchased food item as they do not desire the same food every single day. Moreover, “buy more pay less” offers make people tend to buy more than what they can eat.
- *Branding of food:* Food is often only sold if it looks flawless. Vegetables that are not straight or do not have the “ideal look”, the crust of the bread and such are often discarded regardless of the fact that the taste and nutritional quality is the same as the ideal looking food items.
- *Creativity:* Sometimes creativity is a good skill to have in order to utilise what is in the fridge. People often waste food because they do not wish to eat a monotonous diet, but by using and improving ones creativity, one can learn to use one ingredient in several different ways. Thereby they will not have to waste the food. Also freezing the food, pickling and such can help preventing wastage.
- *Economy:* One thing that many do not realise is the money that goes in the bin along with the food. A household of four persons in Denmark wastes an average of 10,000 DKK a year, by wasting food that could have been eaten (Ibid.). Therefore, there is an economic interest attached to the reduction of food waste. Less waste is more saved.
- *Tradition:* People often have their habits from their homes that they grew up in. Those from the countryside may be used to use their senses to see if the milk was fresh or not, while the urban people would look at the “best before” date, not taking into account that the chances could be that the food was actually good enough to eat.
- *Mother Nature:* Respect for and knowledge about nature may be helpful to use one’s sense when it comes to food. If one knew about the production of the food they ate

and learned about the environmental affects around food production, one may be able to consume in a more environmental friendly way.

- *Quality*: Knowledge and sense about good quality foods may make people choose more cleverly than going for buy more get more offers, for instance.

After coding the data from the step *Empathy* into themes, a focus question for the intervention was developed: *How do we make less food waste more trendy?* (See Appendix 8)

The topics are translated to English.

#### *Results from the step Ideate*

The results in this section derive from the workshop held in the connection with the *Ideate* step. Here, ideas to build prototypes upon that can solve the problems and make less food waste more mainstream came up:

- “*Blærebusen*”: A concept including a bus where celebrities could tell their stories of how they deal with food waste in order to inspire other people who walk into the bus.
- “*Akkurat nok*”: A concept where supermarkets can sell seasonal food and not having excess stock but “just enough”. The purpose is to learn to accept that a desired item is sold out and to learn to value good quality food.
- A food waste logo for eateries that offered doggy bags for leftover food.
- Community building around making and eating food together. People could share whatever food they had with others while strengthening ones network across age groups and backgrounds (see Appendix 6).

#### *Results from the step Prototype*

The logo, criteria, certificate and the leaflets are the visual end products of the step *Prototype*. The three visible points in the logo translated into English are: *Less waste, More Social Responsibility, Good Freshness and Quality* (see Appendix 3).

The criteria that must be fulfilled for achieving the VI ELSKER MAD certificate:

*Food is valuable. It is one of our most precious resources that we must take care of. The “VI ELSKER MAD”-logo encourages maximum utilisation of food items and the prepared food. The better we the utilisation of food, the more benefits - healthier economy, better conscience, increased sustainability and a cleaner environment. The “VI ELSKER MAD”-logo wishes to promote and make visible good practices that can contribute to inspire others.*

*The “VI ELSKER MAD”-logo requires that at least three out of the five following criteria are fulfilled:*

- *To sell fresh but excess food at a lower price at the end of the day or the following. For instance as frozen food.*
- *To offer the customers to take with them their leftovers - it should be the customer's own responsibility to request for it, yet the eatery must clearly make aware of this possibility.*
- *To adjust the portion sizes/menu according to the observed plate waste.*
- *To give away the food - for instance through arrangements with places that help vulnerable groups.*
- *To give away the food for animal feed or bio-fuel*

*The good freshness and quality must be upheld though the eatery utilises the food items optimally (Ibid.).*

Translated from the original Danish criteria.

*The results from the step Test*

After the implementation of the certification at the eateries, we went back to the respective eateries to enquire if there had been feedback on the logo from customers and how the experience of having the logo has been (see Appendix 7).

Generally, the eateries could tell us that there had not been much feedback from the customers at this level. Further feedback was:

- At the bakery, the customers had been asking about the logo. They had mainly been interested in knowing the purpose of and the story behind the logo where the baker had told them about the initiative.
- At Langhoff & Juul, some customers had asked about the logo. Worth mentioning is that the eatery and its staff had decided to adjust the menu according to the observed plate waste. Specifically, they have removed the upper part of the bread of their sandwiches as they have experienced waste of this particular part. When serving the sandwich, they will explain to the customers why the upper bread is lacking. They have been working on how to use this bread in other courses. At the same time, they have chosen to inform their customers on their webpage, as well as in their menu card that the customers have the possibility of taking their leftovers with them back home.
- At the eatery suppestegogis, they had begun to sell leftover bread the following day for five DKK a piece. (See Appendix 9).

Through our Facebook page and through an article in the local newspaper *Aarhus Stiftstidende*, a visual installation of *The School of Architecture* in Aarhus (see Appendix 4), *Vores Omstilling* (Vores Omstilling n.d.), the local TV station *TV2 Østjylland* (TV2 OJ, 2013), and the webpage of *Sager der Samler* (Sager der Samler, 2013), we have received feedback from different people and organisations.

## 6. Discussion

### *Qualitative data versus quantitative*

As mention in the section *Methods*, VI ELSKER MAD has been developed through qualitative data collection. It may be questioned why qualitative research methods have been chosen rather than quantitative. One reason is that our driving force to act upon the issues of food waste, being actively involved in the process of making the intervention, stems from the already existing quantitative data on the negative effects of food waste, of which some of them have already been presented in this thesis. Because of this quantitative data, a set of values and ethics evolved within us that activated us as intervention planners and participants trying to deal with this challenge.

### *Achieving an understanding of the issue among the citizens of the community*

Furthermore, the bottom up intervention done through community participation is a hermeneutic approach to the issue. Hence, qualitative methods help attaining a mutual understanding which is the fundament for hermeneutics. As Grounded Theory stresses, the researcher must not have a hypothesis or any preconceptions before going into the field, but must create his or her perception of a given issue through interaction with people. Hence, it seemed more appropriate and reasonable to carry out a qualitative study. As our data was gained in this manner, it gave us the opportunity to create a realistic picture of people's attitude and relations to food and food waste. Moreover, the research question: ***How can we create a public health intervention through social innovation aiming towards reducing food waste?*** encourages interaction with people and the participation of the social spheres.

### *A normative view upon the challenge of reducing food waste*

When it comes to food waste, one of the influential factors for the retail businesses, eateries and consumers is economy. Seeing Habermas' critical theory in relation to the idea behind the creation of VI ELSKER MAD, one could identify the same discourse that Habermas



discusses. The challenge of reducing food waste is a challenge of finding a balance between the systems who to a certain degree contribute to the vast food waste and the human, social and environmental needs and values. The money, legislations and power that rule in the system world may cause obstacles for eateries and the retail industries to reduce food waste, for instance food labeling legislations. At an eatery, the hygiene rules must not be compromised, as this will put the customers' health as well as the survival of their own business at risk. For instance, if the best before date has expired, the eatery may not use the food item even though it seems fresh and edible. The ordinary consumer or citizen has less or no influence on these aspects.

The consumers' demands affect the production of food which forces the market to deliver excess supply of the desired goods to make sure to keep their customers. Yet the producers of the food items are also in a constant battle with competing food producers to keep and make more customers in order to make profit. If we look at this in connection with Habermas' *system world* theory, we can recognise the power and money aspect very evidently in the demand and supply of food. The objective of VI ELSKER MAD is, as previously mentioned, to make people aware of their choices which may change their demand for food from being quantity minded to being quality minded, and to learn to accept if the desired item is sold out. This may have an effect on the quantities that the market produces which could have a positive effect on the amount of food waste caused by overproduction.

The *lifeworld*, on the contrary, focuses more on the individuals' interpersonal relations, the communication and the society's norms and values (Andersen & Timm, 2010, pp 100-117). One of the key messages of VI ELSKER MAD, which is expressed on the logo itself, is *More Social Responsibility*. This reflects the lifeworld, since the wish is to increase people's responsibility towards their fellow citizens by passing on food to those in need. In this way the relation between the citizens of the society is strengthened and a more natural balance can be stimulated. In the section *Results and Interpretations*, it is mentioned how the bakery *Nummer 24* chooses to donate his leftover bread to shelters for vulnerable groups, even though throwing away the bread would actually require fewer resources in regards to money, time and effort. His opinion was that food is of great value and should be utilised for what it was made for - nutrition. Here we recognise the values of Habermas' *lifeworld* theory, in which money means less than social connections, human values, and natural needs.

### *Paradigm shift*

These two worlds are recognisable if we look at the food paradigms that the past centuries have witnessed. The function and production of food has been changing from time to time. In the book *Food Wars* by Tim Lang and Michael Heasman, the *Productionist Paradigm* is mentioned to be the currently existing paradigm, having its roots in the industrialisation of food. A shift from small scale farm production to mass production and distribution was seen in the period from 1930 and onwards. The focus of this paradigm was to increase the production of food and at the same time boost the economy and labour for the population. Cheap food products, quantity over quality, use of subsidies and focus on mono cropping were the major focal points (Lang and Heasman, 2004, pp 16-33). This demand for quantity could be said to have stuck and gone to extremes in the present times, where there is no more hunger and malnutrition in our part of the world. Hence, we end up with too much food that is wasted. This issue has been addressed previously, but is further being supported by this paradigm discourse.

Another food paradigm that evolved later on was the *Life Science Paradigm*, where the new focus was on GMO (genetically modified organisms) and how to make food functional and influence its appearance, by the use of biotechnology and science. This paradigm also calls for mass production as in the *Productionist Paradigm* (Ibid.).

Primarily, as we have seen through statistics, the overproduction of food is one of the major challenges in the work to reduce food waste. However, as seen in the *Life Science Paradigm*, the appearance of the food also seems to play a big role in this challenge. The looks of foods nowadays may not always resemble its actual looks. The increasing urbanisation makes the distance between the actual primary food production and the consumer longer and longer which takes away the opportunity of getting knowledge about where the food stems from and how it is produced. This distorted perception of food could be argued to be a contributing factor to the vast amount of waste in the present times. Eateries must pay attention to the aesthetics of the food served to please the customers, whereby they may end up with discarding good quality food because of its “controversial” appearance.

While discussing these two paradigms, we enter into an interesting turning point. We seem to be experiencing a paradigm shift at the moment though we are predominantly still under the *Productionist Paradigm*. This is named in *Food Wars* as *The Ecologically Integrated Paradigm*, where health and society is seen in a holistic way. Human and environmental health is the main focus and the paradigm is concerned with preserving the biodiversity and avoiding mono-cropping of the land. *The Ecologically Integrated Paradigm* also has its roots in biotechnology but in another way than *The Life Sciences Integrated Paradigm*. The market focus is on regional and local production and not on a mass scale production (Ibid.). All in all, this is a paradigm that aims to maintain and increase sustainability in every single aspect of public as well as global environmental health. These values are reflected through many of the eateries that hold the VI ELSKER MAD certificate in this first round. They prioritise organic products for their food preparation and some of the eateries even have the Danish certificate for organically certified products (Det økologiske spisemærke, n.d.).

When selecting the eateries in which we wanted to do the introductive implementation of VI ELSKER MAD, we focused on those with a green profile. The bakery *Nummer 24* and *suppestegegis* are running despite of the fact that they do not have a functioning homepage and do not use commercialising tools to advertise for their business. These tendencies can be compared to the values of the lifeworld theory, as there seems to be a desire to seek for common values. This change in consumer demands and behaviours indicates a shift in the food paradigms of our times. Hence, the right time and place to implement an awareness raising intervention around the issue of food waste seems suitable.

### *The communication - effects and shortcomings*

Looking critically upon the communication of the intervention, one could argue if the aim of using social marketing, i.e. to change a certain behaviour, has been or will be achieved. How do we measure the change in behaviour, if any? The scarce feedback could be due to a number of reasons: One reason could be the short period of time from the implementation of the intervention till the first round of feedback. Another time related reason could be that the eateries need time to adjust to the criteria of VI ELSKER MAD. Langhoff & Juul, for instance, are currently implementing new routines and habits creating awareness for the customers about their way of handling food waste through their informative and updated

menu card. When this change has been prevalent for a certain amount of time, it will be possible to measure in different ways if this has had an impact on reducing food waste. For instance, the amount of the food waste from the customers' plates could be compared to the previous amounts. Another way could be to interact with the customers who have become aware of VI ELSKER MAD to see if they have changed their behaviour and if so in what way and why. However, time is a vital factor in order to measure the behavioural changes.

Another question that could be raised is if the communication in itself for creating awareness upon VI ELSKER MAD has been sufficient. More information on how to gain further knowledge about the certification, for instance the web-address for our Facebook page, could have been put on the leaflets that were placed at the respective eateries (see Appendix 6). Furthermore, the leaflets could have been placed at other places such as educational institutions and other public areas. In this connection, a possible influential factor could be the amount of resources in the form of economy and workforce and maybe the lack thereof.

A final point that is necessary to illuminate is the Design Thinking approach. Besides being a suitable tool for this type of a human centred intervention, it does not provide tools to promote and strengthen the bonds in a community which is essential to achieve mutuality within a community on issues influencing their lives. The use of community participation, though, compensates for this lack as capacity building and empowerment, among others, develops and strengthens the competencies in the community.

## 7. Conclusion

This thesis has investigated how a *public health intervention* targeting the challenge of reducing *food waste* can be created through *social innovation*. In this thesis, a presentation on how to approach the global issue of food waste in a socially innovative way has been suggested. The interaction with the regular citizens has made it possible to gain insight in the way the people perceive food and what their opinions are about food waste. This has given us a fruitful collection of qualitative data that has made it possible to create the most real perception of the issue and how it can be approached. To make the intervention fit the needs and thoughts of the regular citizens as much as possible, a bottom up approach through community participation has been the essential tool for the intervention. The involvement of

the citizens throughout the development of VI ELSKER MAD provided us as intervention planners with inputs, ideas and feedback, which empowered the citizens as well as strengthening the intervention. The community participation was enabled through the use of the five steps of the Design Thinking approach. Another crucial tool to communicate the intervention was done through several means of communication tools such as social media and other channels such as the local TV station, leaflets, and the local newspaper. The main visual communicative product - the VI ELSKER MAD-logo - has been promoted through these different channels.

Whether the intervention has contributed to the reduction of food waste cannot be answered at the present moment due to the short period of time from the implementation of the intervention till now. Hence, more time is needed to conclude on the effect of the intervention. Furthermore, more financial resources as well as manpower are required to further disseminate the certification and improve the communication. Only then, it would be possible to measure if the behavioural change that we are striving to achieve has reduced food waste. Despite being mentioned at the end, a significant point is that the food paradigm seems to be shifting into a more holistic and sustainable direction, which could indicate that VI ELSKER MAD, in the long term, could contribute to the reduction of food waste.

## **8. Best Practice and Future Considerations**

VI ELSKER MAD has a range of opportunities for development. If it becomes a regionally or even nationally known certification, it must be considered if the certification should be administered from a self-regulated organisation or a governmentally approved certificate. Moreover, the manner in which the control of the eateries that hold the certificate should be determined in order to ensure that the criteria are complied.

To meet the need for financial resources, different opportunities could be considered. One way to ensure a sustainable economy in order to run VI ELSKER MAD could be that the eateries holding the certificate should pay a contribution to VI ELSKER MAD, perhaps on a yearly basis. Another option could be to seek funds and sponsors.

To deal with the lack of manpower, we must consider whether the people involved in the work for VI ELSKER MAD must be merely volunteers, a combination of volunteers and paid

staff or merely paid staff. If VI ELSKER MAD becomes a successful organisation, it could create job opportunities for students studying subjects that are linked to the work of VI ELSKER MAD.

## List of References

Andersen, P.T., & Timm, H. (2010). *Sundheds Sociologi - en grundbog*. København K: Hans Reitzels Forlag.

Birks, M. & Mills, J. (2011). *Grounded Theory - A Practical Guide*. London: Sage Publication.

Brown, T. & Wyatt, J. (2010). *Design Thinking for Social Innovation*. Stanford Social Innovation Review. Stanford Graduate School of Business.

Det økologiske spisemærke (n.d.). *Meget mere økologi i det offentlige*. Data downloaded 01 December 2013 at <http://www.oekologisk-spisemaerke.dk/>

Food and Agriculture Organization of the United Nations (2013). *Food Wastage Footprint - Impacts on Natural Resources*. Data generated 04 October 2013 from <http://www.fao.org/docrep/018/i3347e/i3347e.pdf>

Foodtank - The Food Think Thank (2013). *21 Inspiring Initiatives Working to Reduce Food Waste Around the World*. Data downloaded 6 June 2013 at <http://foodtank.org/news/2013/06/twenty-one-inspiring-initiatives-working-to-reduce-food-waste-around-the-wo>

FødevarerBanken (n.d.). *fødevarBanken - ingen mad bør gå til spilde, ingen må mangle mad*. Data downloaded 20 November 2013 at [www.fodevarerbanken.dk](http://www.fodevarerbanken.dk)

Gustavsson, J., Cederberg, C., Sonesson, U., van Otterdijk, R. & Meybeck, A. (2011). *Global Food Losses and Food Waste*. Data generated 04 October 2013 from <http://www.fao.org/docrep/014/mb060e/mb060e00.pdf>

IDEO (2013). *About IDEO*. Data downloaded 5 November 2013 at <http://www.ideo.com/about/>

Institute of Design at Stanford (n.d.). *An Introduction to Design Thinking PROCESS GUIDE*. Data generated 1 November 2013 from <https://dschool.stanford.edu/sandbox/groups/dresources/wiki/welcome/attachments/f8e24/d.school%27s%20Facilitator%27s%20Guide%20to%20Leading%20Re.d%20the%20G.G.%20Exp.pdf?sessionID=dd5a5ae3792acebfd55b99aa8eca1786afe871f8>

Mills, C. & Andrews, J. (2009). *Food Waste Collection Guidance*. Data generated 2 November 2013 from [http://www.wrap.org.uk/sites/files/wrap/food%20waste%20collection%20guidance%20-%20amended%20Mar%202010\\_1.pdf](http://www.wrap.org.uk/sites/files/wrap/food%20waste%20collection%20guidance%20-%20amended%20Mar%202010_1.pdf)

Mills, J., Bonner, A., & Francis, K. (2009). The Development of Constructivist Grounded Theory. *International Journal of Qualitative Methods*, 5 (1), 1-10.

National Public Health Partnership (2000). *A Planning Framework For Public Health Practice*. Data generated 3 November 2013 from <http://www.nphp.gov.au/publications/phpractice/planfrwk.pdf>

Sager der Samler (n.d.). *Foreningen*. Data downloaded 08 November 2013 at <http://sagerdersamler.dk/foreningen/>



Sager der Samler (2013). *Lancerings af "Vi elsker mad"*. Data downloaded 27 August 2013 at

<http://sagerdersamler.dk/event/lancering-af-vi-elsker-mad/>

Sager der Samler (2013). *Sammen om Sundhed: 90 deltagere og 14 nye initiativer*. Data downloaded 08 November 2013 at <http://sagerdersamler.dk/sammen-om-sundhed-90-deltagere-og-14-nye-initiativer/>

Stanford Graduate School of Business (n.d.). *Social Innovation*. Data downloaded 03 November 2013 at <http://csi.gsb.stanford.edu/social-innovation>

Stop Spild af Mad (n.d.). *Madspild i tal*. Data downloaded 05 June 2013 at <http://www.stopspildafmad.dk/madspildital.html>

TV2 OJ (2013). *Til kamp mod madspild*. Data downloaded 20 November 2013 at <http://www.tv2oj.dk/artikel/177446:Aarhus--Til-kamp-mod-madspild?rss>

Vores Omstilling (n.d.). *VI ELSKER MAD*. Data downloaded 20 November 2013 at <http://voresomstilling.dk/projekt/vi-elsker-mad/303>

World Health Organization (2002). *Community participation in local health and sustainable development - Approaches and techniques*. Data downloaded 03 November 2013 at [http://www.euro.who.int/\\_data/assets/pdf\\_file/0013/101065/E78652.pdf](http://www.euro.who.int/_data/assets/pdf_file/0013/101065/E78652.pdf)

World Health Organization (2013). *Trade, foreign policy, diplomacy and health*. Downloaded 3 November 2013 at <http://www.who.int/trade/glossary/story076/en/>

World Resources Institute (2013). *RELEASE: Cutting Food Loss and Waste Will Benefit People and the Environment, Says New Study on World Environment Day*. Data downloaded

03 October 2013 from <http://www.wri.org/content/release-cutting-food-loss-and-waste-will-benefit-people-and-environment-says-new-study-world>

York University (2005). *Theories used in IS Research - Hermeneutic Theory*. Data downloaded 26 November 2013 at <http://www.istheory.yorku.ca/hermeneutics.htm>

## Appendix 1

Workshop on the Design Thinking approach at Sager der Samler.

VÆRKTØJSKASSE IV

① EMPATI  
FORSTÅ VIRKELIGHED HOS DEM DET BERØRER  
Hvem berører det? EGNE ERFARINGER  
Hvad er smerten? ANDRES ERFARINGER  
Hvem kender vi (ikke)?  
\* INTERVIEW (Husk at træne lytning og spørgsmål)  
\* FORTÆLLE  
\* KARTLÆGGE  
\* SKABE STRUKTUR I RØD (ORDLØSE MARKERINGER AF VÆRDI)

② DEFINERE  
FORMULERE ET PROBLEM SOM EN MULIGHED  
Hvad drejer det sig om?  
Hvad har betydning?  
Hvor er der energi?  
\* MANGE FØRGRENINGER (BRAINSTORM GODE SPØRGSMÅL)  
\* TRÆF ET VALG (VELG MED MAVEN)

③ IDEUDVIKLING  
SKABE MANGE MULIGHEDER  
Hvad kan vi finde på?  
Hvad kan vi prøve af?  
Hvad ville være sjovt/udfordrende/udfordrende...?  
\* FÅ MANGE IDEER (BRUG STILHED + POST-ITS)  
\* VÆLG DE BEDSTE (ORDLØSE MARKERINGER AF VÆRDI)

④ PROTOTYPE  
KOMMUNIKERE HVAD VI HAR GANG I  
Hvordan kan vi bygge vores ide?  
Hvordan kan vi sætte den i verden?  
Hvordan kan vi gøre det småt nok?  
Hvordan kan vi komme i gang?  
Hvordan kan vi lære?  
\* BYG MODELLER  
\* LAV PLANER  
\* SÆT I GANG

⑤ TEST  
LÆRE HVAD DER VIRKER + FORBEDRE  
Hvad har vi lært?  
Hvad virker?  
\* EVALUERING (+OM VI HAR LYKES, + HVAD HAR VI LÆRT)

SQUAD

OVERNES HUS

6 AARTUS

ITET + HANDLING

ER  
KRRING INITIATIVER

LANDKORT

Summary  
sum:  
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(m)

to  
KEM  
HALLU  
m  
Grew  
HOLDS  
(m)

## Appendix 2

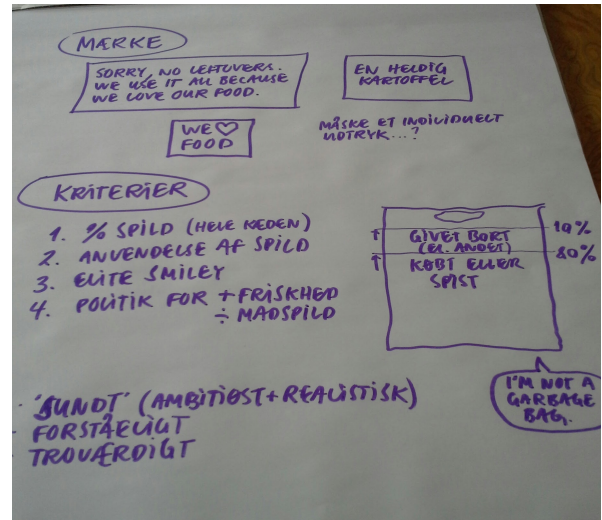
Pictures from the event *Sammen om Sundhed*.





## Appendix 3

### Results from step Prototype and the final product of VI ELSKER MAD



The initial stages of the prototype

#### Criteria:

Mad er værdifuldt. Det er én af vores mest dyrebare ressourcer, som vi skal tage hånd om. "VI ELSKER MAD" mærket opfordrer til maksimal udnyttelse af råvarerne og den tilberedte mad. Jo bedre vi udnytter fødevarerne, des flere sidegevinster – sundere økonomi, bedre samvittighed, øget bæredygtighed og renere miljø. "VI ELSKER MAD" mærket ønsker at fremme og synliggøre en god praksis, som kan være med til at inspirere andre.

"VI ELSKER MAD" mærket forudsætter, at mindst 3 ud af følgende 5 kriterier skal opfyldes:

- Sælge den friske men overskydende mad til lavere pris sidst på dagen eller dagen derpå. Evt. fra frost
- Tilbyde at kunderne kan få overskydende mad med hjem – dette skal være på kundens eget ansvar at



spørge til, men spisestedet skal skilte klart og tydeligt med muligheden

- Tilpasse portionsstørrelsen/menuen efter det observerede tallerkenspild
- Maden gives bort – for eksempel gennem en ordning med steder, der hjælper socialt udsatte
- Maden gives bort til dyrefoder til biobrændsel

Den gode friskhed og kvalitet skal opretholdes, selvom stedet udnytter fødevarerne optimalt.

Udviklet hos Sager der Samler

**The logo:**





## CERTIFIKAT

### VI ELSKER MAD

Mad er en værdifuld ressource, der skal udnyttes optimalt. "VI ELSKER MAD" mærket ønsker at være en inspiration til at værne om maden gennem en fornuftig og sund praksis. Det giver en masse sidegevinster – sundere økonomi, bedre samvittighed, øget bæredygtighed og et renere miljø.

*Vi bestræber os gennem målrettede tiltag på at:*

- Mindske madspild
- Øge social ansvarlighed
- Bevare den gode kvalitet og friskhed

---

Navn

---

Dato





### **VI ELSKER MAD**

Jeg ønsker at inspirere dig til at værne din mad. Det vil gavne dig og dine omgivelser. Jeg håber, at du vil hænge mig op og sprede budskabet.

Udviklet hos Sager der Samler



### **VI ELSKER MAD**

Jeg ønsker at inspirere dig til at værne din mad. Det vil gavne dig og dine omgivelser. Jeg håber, at du vil hænge mig op og sprede budskabet.

Udviklet hos Sager der Samler



### **VI ELSKER MAD**

Jeg ønsker at inspirere dig til at værne din mad. Det vil gavne dig og dine omgivelser. Jeg håber, at du vil hænge mig op og sprede budskabet.

Udviklet hos Sager der Samler

facebook

Søg efter personer, steder og ting

Abi K. Chetty

Startside

du slår op, kommenterer og synes godt om på vegne af Abi K. Chetty — Skift til Vi elsker mad

Vi elsker mad

Tidslinje ▼ Seneste ▼

Administratorpanel

Promover side

Seneste

**Vi elsker mad**  
 233 Synes godt om ·  
 4 taler om dette

Opdater sideoplysninger

✓ Synes godt om

Besked ✖

Fællesskab

"VI ELSKER MAD"-mærket ønsker at være en inspiration til at værne om maden gennem en fornuftig og god praksis.

Om

Billeder

Synes godt om

Begivenheder

Se din annonce her

**Vi elsker mad**  
  
 "VI ELSKER MAD"-mærket ønsker at være en inspiration til at værne om maden gennem en fornuftig og

facebook

Søg efter personer, steder og ting

Abi K. Chetty

Du slår op, kommenterer og synes godt om på vegne af Abi K. Chetty — Skift til Vi elsker mad

Vi elsker mad

Om ▼

✓ Synes godt om

Om

"VI ELSKER MAD"-mærket ønsker at være en inspiration til at værne om maden gennem en fornuftig og god praksis.

**Beskrivelse**

"VI ELSKER MAD"-mærket opfordrer til at udnytte råvarerne og den tilberedte mad optimalt. Ønsket er at fremhæve spisesteder med en god praksis og synliggøre, hvad en god praksis består i:

- at mindske madspild
- at øge social ansvarlighed
- at bevare den gode kvalitet og friskhed

**Grundlæggende oplysninger**

Lanceret 28. august 2013

---

**Livsbegivenheder**

2013 Lanceret den 28. august 2013

Om Opret annonce Opret side Udviklere Karrierer Privatliv Cookies Vilkår Hjælp

Facebook © 2013 · Dansk

## Appendix 4

Article from the newspaper *Århus Stiftstidende*

t i alt får de sne-  
tre små stjerner  
et af deres go-

# Fokus på madspild

Af Jacob Vestervig  
jave@stiften.dk

**AARHUS:** »Vi elsker mad« er et nyt lokalt initiativ i Aarhus, der ønsker at sætte fokus på madspild.

Initiativet vil fremhæve de spisesteder, der har en god praksis med fokus på mindre madspild, god kvalitet og friskhed og større social ansvarlighed. Ambitionen er at synliggøre spisesteder, der aktivt søger at mindske madspild med et mærke og et certifikat, der skal give forbrugerne mulighed for at vælge bevidst.

Spisestederne skal opfylde tre ud af fem kriterier, som for eksempel at tilbyde doggybags til kunderne eller do-



Der bliver hvert år smidt tonsvis af mad i skraldespandene. Et nyt initiativ vil nu fremhæve de spisesteder, der har fokus på mindre madspild. Arkivfoto

nere overskydende mad til væresteder. Der er foreløbigt syv spisesteder med i mærkningen, og intentionen er løbende at udbygge ordningen.

Initiativet er en del af Sager der Samlers projekt, Sam-

men om Sundhed, i partnerskab med Aarhus Kommune. To studerende på Global Nutrition and Health ved VIA University College, Abi Kathasan og Ajla Dzubur, er initiativtagere til projektet.



The visual installation of The School of Architecture in the center of Aarhus in cooperation with VI ELSKER MAD. The aim was to put focus on all the food that is wasted. The discarded food from supermarkets is seen in the bottom picture.



## Appendix 5

### *Results from the step Empathy*

Results gained from asking *What is your attitude towards food?* and *What is your attitude towards food waste?* in the *Empathy* phase. The answers below are directly cited:

- “Vores gæster ville ikke bryde sig om tanken, at vi ville give gratis rester bort til væresteder, da gæsterne skal betale for varen. Så det bliver kompliceret, da det er et spørgsmål om holdning.” (Siegfreds Coffe Bar)
- “Jeg laver altid en ugentlig madplan. På denne måde sparer jeg tid og penge, og jeg er overbevist om, at planlægningen bidrager til at jeg på længere sigt smider mindre mad.” (Employee Siegfreds Coffe Bar)
- “Mine rester ryger normalt med i madpakken til arbejde dagen efter.” (Employee at Siegfreds Coffe Bar)
- “Andre gange fryser jeg mine rester.” (Employee at Siegfreds Coffe Bar)
- “Jeg går op i økologiske varer og køber dem og gode produkter er for dyre at smide i skraldespanden.” (Employee at Wine Shop Guldsmedegade)
- “Da jeg boede hjemme, handlede mine forældre ind dag til dag, i modsætning til mig.” (Employee at Wine Shop Guldsmedegade)
- “Jeg synes, at REMA1000 har gjort det lettere for forbrugeren at undgå madspild ved at udarbejde apps, som hjælper forbrugeren ved fx at have lavet “madplan” appen.” (Employee at Wine Shop Guldsmedegade)
- “Det er en læringsprocess at flytte hjemmefra og finde ud af hvor meget mad, du skal handle ind.” (Drudenfuss employee)
- “Jeg synes, at madspild er uundgåeligt.” (Drudenfuss employee)
- “Jeg tænker over de mængder af mad, jeg laver sammenlignet med hvor meget jeg kan spise.” (Drudenfuss employee, Graven)
- “Vi spiste altid rester hjemme hos mine forældre.” (Drudenfuss employee, Graven)
- “Vi giver noget af vores overskydende brød og kager til et værested ved Klosterport.” (Owner of

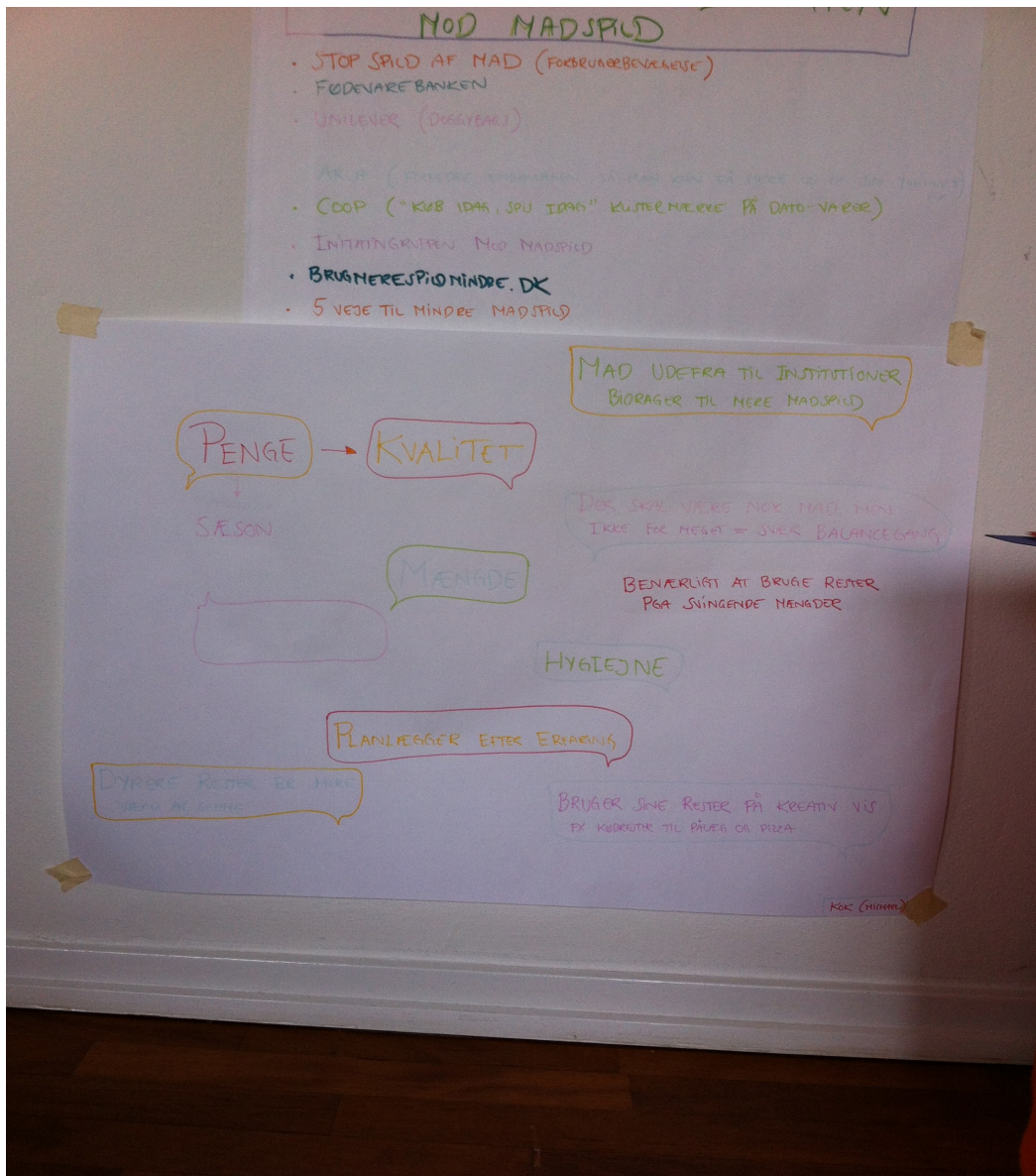
Bager Nr24, Graven)

- “Ærligt talt så kan det bedst betale sig for mig at smide mine rester ud end at give det væk til væresteder, men jeg smider ikke mad ud for det har jeg ikke interesse i. Jeg værdsætter maden og vores miljø.” (Owner of Bager Nr24, Graven)
- “I min familie smed vi altid rester ud.” (Employee at Siegfreds Coffe Bar)
- “Jeg hader madspild.” (Employee at Siegfreds Coffe Bar)

Pictures of some of the people who volunteered to be interviewed:



A sum up on thoughts and statements gained from the interviews:





## Appendix 6

### *Results gained from the Ideate step*

Results gained in the form of ideas from the *Ideate* step;

- “Blærebussen”
- “Akkurat nok”
- A food waste logo for eateries that offered doggy bags for leftover food
- Community building around making and eating food together

The discarded but edible food from the supermarkets *SuperBrugsen* and *Rema1000*







The participants eating the food prepared from the food items donated by Super Brugsen, Rema1000 and Nummer 24.



“Akkurat nok”. A visual form of the idea





The themes connected to the ideas that occurred from the *Ideate* step.

## Appendix 7

*The launching of the VI ELSKER MAD-certification. 28.08.2013*

At Café Glad, the owner put the logo on the front door.





## Suppestegogis



## Launching at Restaurant MellemRum





## Nummer 24 gets certified



At Langhoff & Juul



Logo and flyers at Restaurant Komfur





The logo at the front of the eatery Drudenfuss



## Appendix 8

### *Results from the step Define*

Results gained from the *Define* step where the most outstanding statements are drawn from the *Empathy* phase and put into themes;

- Tabu omkring madspild
- Fødevareindustriens ansvar
- Singler og deres madspild
- Branding af fødevarer
- Kreativitet
- Penge
- Tradition
- Moder Jord
- Kvalitet
- Forholdet til mad

(Translated to English in the thesis)

At the end of this meeting we concluded from all the topics discussed that a good focus question for the intervention would be *How do we make less food waste more trendy?*



## Appendix 9

One of the results of the implementation of VI ELSKER MAD. The eatery *suppestegogis* have begun to sell leftover bread for five DKK.

