

## Halmstad schools competing to reduce food waste in canteens (KliMatsmart)



### 1. Summary

Country/Geographical Area	Sweden, Municipality of Halmstad, County of Halland
Level of implementation	Local
Scale	Roll-out
Waste fraction / Specific Waste Type	Bio-waste / Food waste from school lunches
Target Audience	All pupils, teachers, and canteen staff in 14 middle and high schools schools run by municipality
Objective	Decrease food wastage in school canteens and herby reduce the environmental impact of CO2 emission.
Initiator/coordinator	Halmstad municipality
Other key actors involved	Hushållningssällskapet: the Swedish Rural Economy and Agricultural Societies (NGO), Måltidsservice (organisation supplying food for school canteens)
Duration	2008 - 2011
Number in Mapping report	29
Drafted by	Karlskrona municipality 2/2012
Contacts / URL	<a href="http://www.halmstad.se/forskolaskola/nyhetsarkivfs/nykampanjskaminskamatsvin/netpaskolornaytterligare.4787.html">www.halmstad.se/forskolaskola/nyhetsarkivfs/nykampanjskaminskamatsvin/netpaskolornaytterligare.4787.html</a> (in Swedish) <a href="http://www.halmstad.se/omkommunen/kommunensorganisation/forvaltningar/se/rvicekontoret/maltidsservice.1282.html">www.halmstad.se/omkommunen/kommunensorganisation/forvaltningar/se/rvicekontoret/maltidsservice.1282.html</a> (in Swedish)

## 2. Context

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Lunch is a municipal responsibility in Sweden, it was introduced in the 1940s, and occurs within nursery, primary school (age 7-15) and secondary school (age 15-18). Household waste and bio-waste is also a municipal responsibility. The municipalities are responsible for collecting and taking care of household waste, except the waste covered by the manufacturer's responsibility. Producers are responsible for waste such as packaging, cars, newspapers, tires and electrical products. In other cases, the responsible is the person who caused the waste, i.e. the operator.

The national law states that municipalities must serve school lunches to all pupils and that it must be for free (Sweden and Finland are the only two countries in the world that offer this) and nutritious. The latter was added when the law was amended in July 2011. The municipalities have autonomous power to decide how much to spend on the meals and they also determine to which extent they want to offer different types of vegetarian food.

Large schools usually have their own school kitchen, while small schools generally do not have the resources to prepare their own food. Frozen or cooked food is then transported out to the schools, where only heating or reheating occurs. Even in the "real" school kitchens the use of semi-prepared food is prevalent. School meals are usually served and eaten in a school canteen.

Until the 1990s, a single option for lunch prevailed but soon it became more common to offer an alternative main course and / or sour milk. During the 2000s, many schools have developed multiple choices with at least two courses and at least one vegetarian dish.

The food in the schools is actually a public health issue. Adults are responsible to provide good food and good eating habits. Many children are overweight or suffer from eating disorders. This leads to serious health problems in the long run. School meals have an important role in the founding of healthy eating habits. In many families, school food is the only cooked food some of the children eat during the week. School meals can be viewed as an investment in public health and as such the investment will pay itself back in the future.

Halmstad is a port, industrial and recreational town at the mouth of Nissan river in the county of Halland on the Swedish west coast, some 140 km south of Gothenburg. Halmstad Municipality has a population of nearly 90,000 and is the capital of Halland County with just over 300,000 inhabitants. The public sector is the main employer in the town with an important garrison, university and county hospital. The county of Halland represents the highest life expectancy in Sweden and the population are always top rated in national life satisfaction surveys.

In Halmstad both school meals and household waste are run by Servicekontoret (Service office) which is a board within the municipality that carries out services such as food in schools and nursing homes, cleaning, IT-services, commercial printing, switchboard operators and vehicle rental. The office has some 400 employees and has an annual turnover of nearly 40 MEURO.

In Halmstad municipality, there are 14 schools that supply approximately 6,850 students with daily meals. This is also the target group for this campaign where all pupils participated in the project.

The project came about as a local initiative in 2008 when a "Municipal Meal Manager" approached the climate co-ordinator of the municipality. The Municipal Meal Manager represents "Måltidsservice" which is an organization of 170 people that annually serves more than 2 million portions of food for schools and half a million portions for nursing homes. They operate 23 different cooking kitchens and 27 receiving kitchens with their own staff. They had detected significant and unnecessary food wastage and wanted to carry out an information campaign aiming directly at the pupils. The municipality decided to enlarge the idea to achieve wider results. Therefore, it got connected to the overall municipal goals: 1) Eat well - feel good 2) Eat more greens and 3) Don't waste food.

### 3. Strategy

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#### **Objectives**

The overall objective for Halmstad municipality was to utilize a campaign and competition between schools to decrease food wastage in school canteens hereby reducing the environmental impact of CO2 emission.

To achieve this the municipality wanted the pupils to discover and reflect on their own behaviour in order to ultimately change it. Therefore, the campaign “Klimatsmart” (climate smart) was launched. By changing behaviour additional and latent objectives such as decreasing CO2 emissions and decreasing meat consumption in favour of more sustainable vegetarian and locally produced food would also be achieved. Additionally less food waste would also save money.

#### **Preconditions**

The existing network and information channel of an organisation supplying food for school canteens was exploited (Måltidsservice).

Representatives from Måltidsservice, together with a manager from the Environmental department of the municipality, formed a Workgroup that set up a detailed work plan and developed basic information material - brochures, posters to be handed out and at display in the schools - as well as a website.

Put focus on the importance of food for learning purposes, personal development both physically and mentally and not the least to feel good.

#### **Procedure**

1. Establish a baseline value: Personnel in school canteens observed that unreasonably large amounts of food were thrown away and addressed the municipality to get help with a campaign. To get a baseline value to evaluate the food waste, “Måltidsservice” weighed the waste, *surreptitiously*, during three weeks prior to initiating the campaign. The baseline value came to be 44,7 g of waste per meal and pupil.
2. Employ and provide information on the project and the topic to canteen personnel.
3. Hold workshops with the 14 different schools to anchor, boost and adapt the campaign to individual conditions and ideas. In order to get a wide participation and acceptance of the campaign a working committee was established with representatives from the municipality, the schools and the canteens. They applied a bottom-up approach to secure engagement and participation. This group also approached the teachers in order to convince them of including the campaign objectives in their teaching.
4. Initiate the campaign by addressing the pupils directly, on site in the canteen. Using information material and a spokesperson. In this case, a locally famous football player that promoted the importance of proper food and nutrition as well as signing autographs.
5. Weighing the food waste, on a daily basis for three weeks at four occasions at each school (January, May and October 2009 and in November 2010) and comparing with the baseline value.
6. Presenting the results for each school publicly on a daily basis to encourage competition amongst the pupils of the participating schools.
7. Employ contacts with media for attention and external dissemination.

8. Announce results and celebrate the winning school by special lunch (live music, entertainment etc.). The campaign was designed as a contest between the schools where the school that threw away the least won.
9. Surreptitious follow-up weighing of waste to exclude biased results.
10. Evaluation of final results via pupil surveys (600 replies) and parental verification.
11. Spread the campaign to other municipalities, 21 municipalities showed interest..

### ***Instruments***

- A communication plan was developed before the campaign.
- Coaching of school personnel.
- The campaign was designed as a contest to further entusiast the target group and the audience.
- Website and printed material.
- A scale in each kitchen.

The campaign had a wider theme, focusing on well being, in line with CO2 reduction 1) Eat well - feel good 2) Eat more greens 3) Don't waste food

### ***Timeframe***

The campaign started in 2008 and ended in spring 2011. Within the campaign the food was weighed four times (January 2009, May 2009, October 2009 and a control in November 2010)

The aim was to incorporate the results from this campaign into the municipal general undertaking.

## 4 .Resources

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### ***Financial Resources***

The initial budget for the 3-year campaign was inferior to 10,000 Euro. Mainly direct costs for printing brochures and posters. No salary and/or similar personnel costs were included in the calculation.

### ***Human Resources***

One coordinator of the project and a working group consisting of 4 stakeholders (responsible for school meals, Environmental coordinator, informer and one representative from the Swedish Rural Economy and Agricultural Societies.

### ***Equipment***

Posters and brochures were produced in four stages (before each weighing) during the campaign. Signs with encouraging messages (“Thanks for not wasting food”, “Please repeat”) were placed strategically throughout the canteens. A scale in each kitchen.

### ***Communication tools***

A communication plan was developed before the campaign. Posters and brochures were produced. A website.

### ***Allocation of resources over time***

Resources were planned for three years and no budget cuts occurred. Results from campaign became integrated in the municipal general undertaking.

## 5. Evaluation

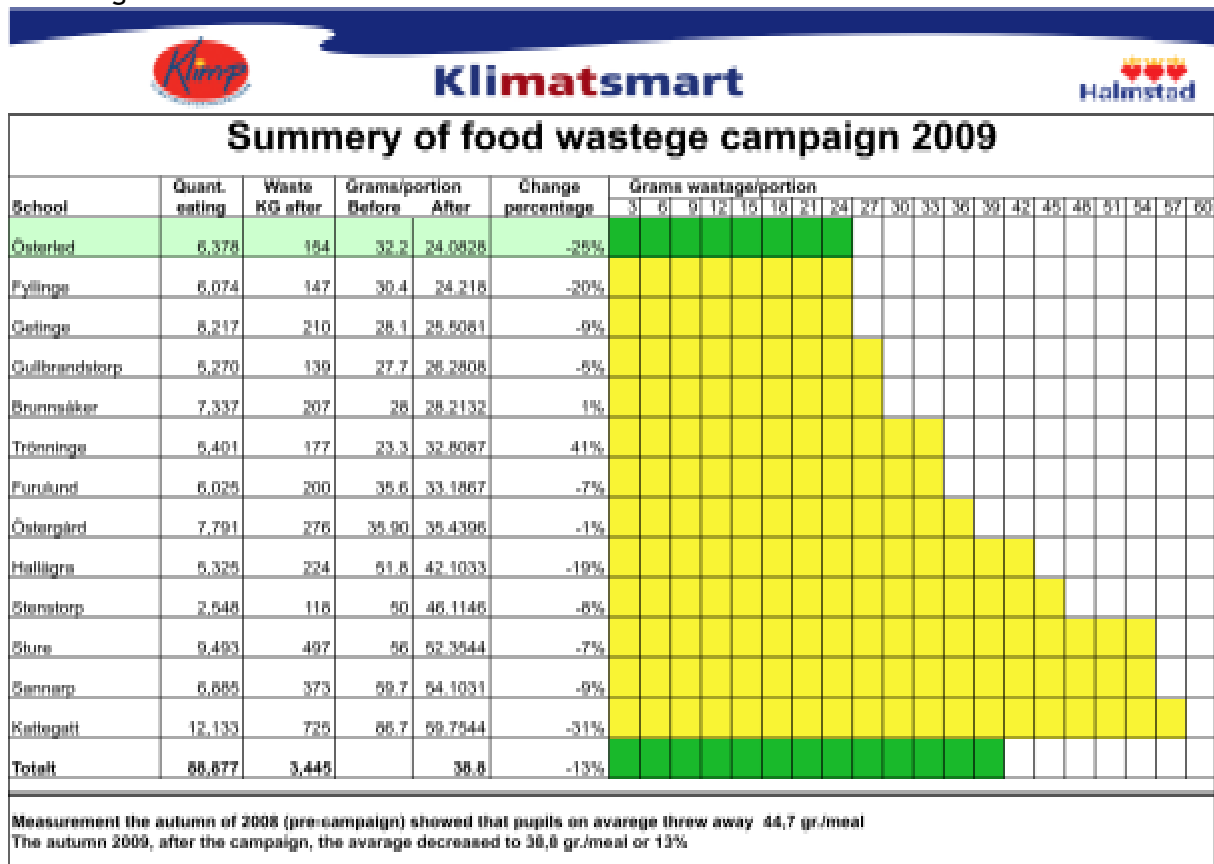
### Results

#### - Participation

The project was targeted both towards the pupils and at personnel in the canteens. In total 6,850 pupils of which none had been engaged or informed prior to the campaign.

#### - Avoided waste quantities

During the campaign the food waste per portion diminished with 5,8 gr. (13 %), from 44,7 gr./serving to 38,8 gr./serving. The sample group consisted of 6,850 pupils and daily portions; a full school year consists of 173 days. This gives 1,185,050 servings annually and consequently an avoidance of 6,783 kg of food wastage.



#### Other results

The campaign managed to reach a political decision (April 22, 2011) on municipal level to weigh the food waste in all schools twice per year.

## ***Impacts***

### ***- Avoided Costs***

6,873 kg. per year is approximately 17,180 portions of 400 gr. The cost per portion is approximately 1 Euro, so approximately 17,180 Euro are saved annually.

### ***- Avoided CO<sub>2</sub> equivalents***

Unilever calculates that 1 kg. of school food is equal to about 1 kg of CO<sub>2</sub>, so nearly 7 tonnes of CO<sub>2</sub> can be saved annually with the given result.

### ***- Social Benefits***

In many families school food is the only cooked food some of the children eat during the week. School meals can be viewed as an investment in public health and improvement of the pupils performance. This is an investment that will pay itself back in the future.

## ***Continuation over time***

The action consisted of three short campaigns (one week at a time) and a more systematic approach in two selected schools. Part of the general undertaking by the schools the food wastage is weighed.

## ***Difficulties encountered***

The campaign was intended to be integrated into the education program of the schools since it is considered to have desired quality of holistic thinking. Food and waste ranges from geography, political science and sociology to physics, chemistry and mathematics. It offers theoretical dilemmas and is easily and immediately mixed with practical experiences from the canteen. However, the teachers experienced too much pressure from complying with the national requirements and objectives and rejected the proposal to incorporate it in their education plan.

## ***Monitoring system***

The surreptitious measurements months after each campaign, where the wastage decrease remained, indicates that a change in behaviour can occur given the right campaign and participation.

## 6. Lesson learnt & recommendations

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### ***Opportunities & challenges***

One of the sub-objectives of the campaign was to decrease the amount of meat consumed in favour of locally and organically produced vegetarian alternatives. Traditionally, one of the most popular dishes is pasta with meat-sauce (bolognaise) but instead of removing it from the menu canteens could grab an opportunity to decrease the share of meat and replace it with a more sustainable alternative. This example combined with adequate education in classes, would increase the acceptance amongst the pupils as well as their overall understanding of the subject. By decreasing meat consumption we also decrease CO2 emissions.

A challenge for campaigns like this one is to achieve the political support required to accomplish a change. In this campaign the successful results drew media attention, which consequently achieved the local political support.

### ***Key factors of success***

The access to the existing network through Måltidsservice with its support and dissemination possibilities proved to be crucial for the outcome of the campaign. In the absence of such a function initial focus should aim at developing a similar network. Without the extensive participation, engagement and bottom-up approach provided by Måltidsservice tangible results would be a lot less cost-efficient.

Locally produced food was granted substantial preference, when applicable in public procurement.

Raise the importance of food in general. Food is important from many perspectives and e.g. by proclaiming the importance of eating a proper breakfast at home made the pupils realise that their ability to appraise the size of their portion for lunch also decreased their food wastage. The fact that the eye is often more hungry than the stomach is an important lesson learnt.

By engaging the canteen staff, including them in the planning and informing them sufficiently to become spokespersons for the concept they did not consider the extra work to weigh the food as a negative workload but rather as something essential and necessary. Partially, the mere attention on the canteen staff was perceived as something positive but the feeling of participation and contribution are also important factors.

### ***Recommended improvements/adaptations***

To further involve and engage the teachers in order to incorporate the issue of food vs. waste in education, both in different subjects and at different levels/ages. This requires specific education material that easily can be applied in one or two classes.

### ***Recommended indicators & monitoring***

Weighing the food by the kilo is fast, cheap, easy, accurate, relevant, and tangible both for short-term competitions but also long-term monitoring.

Parental awareness of the actions and objectives.

## 7. Comparison with similar actions

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### ***In different location/context***

The campaign and its result achieved a considerable national break through thanks to the media attention it attracted. 21 other municipalities have shown direct interest in this campaign. Due to the recent completion of the campaign there are no concrete results from similar projects or initiatives at this stage.

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