

**Do organic foodservice intervention strategies lead to changes in the availability of healthy options**

*first results from a survey in Danish and Norwegian schools*

He, Chen; Mikkelsen, Bent Egberg

*Published in:*

Proceedings of the Workshop on Organic Public Catering held at the 16th IFOAM Organic World Congress, 19th June 2008 in Modena, Italy

*Publication date:*

2009

*Document Version*

Early version, also known as pre-print

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*

He, C., & Mikkelsen, B. E. (2009). Do organic foodservice intervention strategies lead to changes in the availability of healthy options: first results from a survey in Danish and Norwegian schools. In *Proceedings of the Workshop on Organic Public Catering held at the 16th IFOAM Organic World Congress, 19th June 2008 in Modena, Italy* (pp. 143-148). Bioforsk.

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# CORE Organic

## CORE Organic Project Series Report

### Proceedings

## Proceedings of the Workshop on Organic Public Catering held at the 16th IFOAM Organic World Congress, 19th June 2008 in Modena, Italy



**Carola Strassner, UASM, Anne-Kristin Løes, Bioforsk, Niels Heine Kristensen, DTU and Roberto Spigarolo, UniMi (editors)**

CORE Organic project no. 1881

January, 2009

16<sup>TH</sup> IFOAM  
ORGANIC WORLD  
CONGRESS  
MODENA, JUNE 2008

CULTIVATE  
THE FUTURE.

The author(s)/editor(s) gratefully acknowledge the financial support for this report provided by the members of the CORE Organic Funding Body Network, being former partners of the FP6 ERA-NET project, CORE Organic (Coordination of European Transnational Research in Organic Food and Farming, EU FP6 Project no. 011716), which was finalised in September 2007.

The text in this report is the sole responsibility of the author(s)/editor(s) and does not necessarily reflect the views of the national funding bodies having financed this project.

This project is one of the eight research pilot projects selected in 2007 for transnational funding by the partners of the CORE Organic ERA-net project. The pilot projects, which are running in the period 2007 – 2010, are:

<b>AGTEC-Org</b>	AGronomical and TEChnological methods to improve ORGanic wheat quality: <a href="http://agtec.coreportal.org">agtec.coreportal.org</a>
<b>ANIPLAN</b>	Minimising medicine use in organic dairy herds through animal health and welfare planning: <a href="http://aniplan.coreportal.org">aniplan.coreportal.org</a>
<b>FCP</b>	Farmer consumer partnerships: <a href="http://fcp.coreportal.org">fcp.coreportal.org</a>
<b>COREPIG</b>	Prevention of selected diseases and parasites in organic pig herds – by means of a HACCP based management and surveillance programme: <a href="http://corepig.coreportal.org">corepig.coreportal.org</a>
<b>iPOPY</b>	innovative Public Organic food Procurement for Youth: <a href="http://ipopy.coreportal.org">ipopy.coreportal.org</a>
<b>PathOrganic</b>	Risk and Recommendations Regarding Human Pathogens in Organic Production Chains: <a href="http://pathorganic.coreportal.org">pathorganic.coreportal.org</a>
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Photos: Benjamin Nölting, Berlin Institute of Technology

A pdf can be downloaded free of charge from the Organic Eprints archive at [www.orgprints.org](http://www.orgprints.org).

ISBN: 978-87-991343-7-3

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## Introduction

“If you eat, you’re involved in agriculture.” — Wendell Berry

The unbreakable connection between meals and farming are still there, although today these sectors of the society seem more physically, socially and mentally separated than ever. Characteristic for the organic principles is that they, to a certain extent, subscribe to elements and aims that are challenging this modern separation. Organic farming started out as a process of re-inventing farming, with the purpose of reconnecting and the purpose of integrating sustainability aims and theories in the practices and methods.

In modern western societies, current lifestyles are characterised by an urbanized culture, and there seem to be less and less people that are dedicated to agri-culture and a rural (peasant) lifestyle. The numbers of farmers are rapidly declining in most, if not all European countries, whereas the size of herds and farmland managed by each single farmer is rapidly increasing, making the agriculture more and more industrialized. Nevertheless, modern western consumers and citizens seem to have a growing preference towards organic food and farming, and organic farming seems to become redesigned towards modern (rural) lifestyles.

The general preference towards organic food is also becoming a part of public institutions’ practice, wherever relevant. Public canteens, school meals, hospital food etc are subject to organic transitions. The conversion to organic products in these food-serving systems is often driven by a strong support and demand from consumers, employees or decision makers at different levels.

The preferences amongst modern consumers and citizens for organic food and farming challenge the existing structures and routines in public institutions, as well as in the related food supply chains and public purchase offices. There is a lack of supply, a lack of know-how, a lack of will to change and adapt, and a general lack of knowledge about organic food. These many challenges call for new knowledge, new methods and new solutions.

During the Organic World Congress (OWC) arranged by IFOAM in Modena, Italy in June 2008, a workshop was designed – primarily on the platform of the CORE Organic pilot project iPOPY (innovative Public Organic food Procurement for Youth). The aim was to facilitate the sharing of knowledge and the event was an excellent opportunity to gather people seriously involved and engaged in Public Organic food Procurement (POP), both in theory and in practice. The presentations in these proceedings cover a variety of different projects, case stories, exercises, experiments and theoretical reflections. The aim of the present proceedings is to contribute to broadening the knowledge platform on public organic food procurement on a global scale, and to spread empirical and theoretical information to a wider research and development community.

The proceedings cover both quantitative and qualitative information from a sector that until today has only been partially documented. A number of presentations cover *strategies* of POP, taking into account the potentials in letting youth experience organic visions and principles, and also letting the youth benefit from the qualities of organic foods. The contributions cover a variety of different historical and other contextual differences connected to different countries and cultures. The chapter on *challenges* (problems and solutions) for organic catering and POP takes up the perspective of how

to connect producers and users in the (new) distribution channel of catering, where volumes, structures, certification procedures and intermediary institutions are scarce. The concrete and practical barriers and potentials are the major field presented here, but also suggestions and recommendations on how to overcome major barriers, and deal with challenges, are covered.

A major focus of the proceedings is *food for schools*, and a section has been dedicated to the presentation of distinct and very interesting school meal cases. Introducing organic products and concepts to youth, and especially to the institutions the schools represent, as well as connecting to their missions, values, actors and agendas comprise a serious challenge. As seen, this also offers a number of very relevant and promising potentials for covering issues of food culture, health, learning, environment, sustainability and socialization. In spite of being unique and original cases, they may be helpful and inspiring for similar initiatives and plans around the globe.

We are proud and grateful that the CORE Organic funding body decided to prioritise research about organic food for youth, so that the iPOPY project could be realized. The editors of this proceeding are all engaged in this project and proud to present the content of this report published in the CORE Organic Project Report Series.

The editors,  
Carola Strassner  
Anne-Kristin Løes  
Niels Heine Kristensen  
and  
Roberto Spigarolo

Münster, Tingvoll, København and Milan, January 2009

## Technical Preface

Dear Reader

You have before you the resultant product of a lot of hard work by very many people in many countries. These proceedings are the first that we know of focusing on organic food in the public nutrition of youth internationally and we are very proud to present them to you.

All contributions that are included in the proceedings you are now reading, were part of the 16<sup>th</sup> IFOAM Organic World Congress “Cultivate the future” that was held in Modena, Italy, from 16<sup>th</sup>-20<sup>th</sup> June 2008 and its satellite activities. Embedded in this Organic World Congress as scientific component was the Second Scientific Conference of the International Society of Organic Agriculture Research (ISO FAR), also held in Modena from 18<sup>th</sup>-20<sup>th</sup> June 2008. This compilation should be seen as a complement to the Book of Abstracts of the IFOAM Organic World Congress 2008 and the Proceedings of the ISO FAR 2<sup>nd</sup> Scientific Conference, both of which can also be found on the CD-ROM with the complete set of the Proceedings.

It was our great fortune as iPOPY research team that the IFOAM Organic World Congress Steering Committee agreed to let us host an afternoon session on public organic catering. This was integrated into the Organic World Congress programme on Thursday, 19<sup>th</sup> June, scheduled for 17:00-20:30. The organisers gave us their full support and we were able to bring together a truly international panel of speakers (presentations) and contributors (posters) which prove that the topic of public organic food for youth is currently enjoying worldwide attention. The purpose of the iPOPY project is to study how strategies and instruments for public procurement of organic food in serving outlets for young people may increase the consumption of organic food. In the workshop that we arranged during the Organic World Congress, the focus was set on organic school meals.

The contributions in these proceedings are organised as follows:

The presentations from the *iPOPY Workshop on Organic Public Catering* are presented in the three sections entitled “Workshop Session” in the form of abstracts, papers and/or slide presentations, as were made available to us after the event. Please remember that abstracts for the contributions by Løes; Nielsen & Kristensen; Ruge and Andersson & Andersson are also found in the Organic World Congress Book of Abstracts (pages 400, 406, 408, 390 respectively).

We were delighted to discover further contributions in other sessions that we found relevant to the topic of Organic Public Catering, and very happy that the authors agreed to let us include their papers and presentations in these proceedings. The papers for the presentations of Bertino and Öström are also found in the Organic World Congress Book of Abstracts (pages 392 and 404 respectively). Such papers are presented here with kind permission from the Organisers.

We are especially happy to provide an opportunity for viewing the many poster contributions to the workshop that are directly related to our own research in iPOPY by publishing these

proceedings, as it was not possible to give those contributions due appreciation in Modena. Some of the posters presented here were also presented as papers in the Organic World Congress Book of Abstracts (pages 407 and 403 respectively): Hansen & Schmidt and Mikkola & Mikkelsen. Further, two posters by Løes et al and Mikkelsen were contributions to the ISOFAR Congress and are reprinted here with the permission of the editor of the ISOFAR proceedings (see pages 298 and 286 respectively).

Along with their posters we are also grateful for the permission from the Organic World Congress Organisers to print the papers of Didero, Facchinetti, Leicht-Eckardt, Löfven & Mårtensson-Asterland as well as Peruzzi (Abstracts see pages 395, 395, 398, 401, 405 respectively).

The editors

# Workshop session 1

## Towards organic catering



## **iPOPY - innovative Public Organic food Procurement for Youth. Project background, activities and first results.**

**A.K. Løes**

Bioforsk Organic Food and Farming, Tingvoll, Norway

The main iPOPY objective is to identify and describe efficient ways of implementing organic food in public serving outlets for young people. By analysing systems of public organic food procurement in four European countries, we will propose strategies and instruments to foster sustainable nutrition and increase young people's consumption of organic food. Young people are the future daily food shoppers. Public and private initiatives to increase the consciousness about healthy food produced without negative environmental impacts may be especially efficient when targeted at young people. As the youth gradually resides longer in public institutions and eating habits are often unsatisfactory, school meals attain large public interest. Many projects are developing and improving new and existing food serving systems.

iPOPY (2007-10) is one of eight pilot projects in the European CORE Organic programme, funded by a network of cooperating funding bodies in 11 countries. Our working methods are combined qualitative and quantitative, collecting data by structured and open-ended questionnaires and interviews, and searching information and statistics from public websites and reports. We have defined a number of relevant cases in each country (Denmark, Finland, Italy and Norway) where drivers, hindrances and factors promoting organic food serving are being studied (e.g. municipalities, congregations, music festivals). The work packages are studying *policies*, *supply* chains and certification, the young consumers' *perception* and participation, and *health* effects of organic menus.

Our first results are preliminary reports about the school meal situation in each participating country, emphasising the target areas for organic food (available at the project web site, [www.ipopy.coreportal.org](http://www.ipopy.coreportal.org)). The school lunch systems vary a lot between the countries. A warm lunch is offered for free to all children in Finland, from kindergarten to comprehensive school, but organic food is not yet much in use. Italian authorities support daily warm meals for pupils spending full days in school, and many regions have ambitious goals about the food being produced organically and locally. In Denmark, school meals are focussed in the public discussion. Various preparation and sales arrangements are tested in many municipalities; many include a significant share of organic produce. However, the traditionally short lunch break (20 minutes) makes it difficult to buy and enjoy a warm meal. Norwegian pupils generally bring their lunch boxes from home and may subscribe for milk and/or fruit. In some regions, organic fruit and/or milk may be purchased. As teen-agers eat less fruit and those pupils that mostly demand a fruit serving commonly don't subscribe, pupils in schools with a lower secondary level has since August 2007 got the fruit without payment.

The preliminary iPOPY conclusion is that many challenges are facing efforts to implement organic food in serving outlets for youth, but various successful cases demonstrate that the difficulties may be overcome. We have achieved an overview within a highly dynamic field, and are now ready to proceed with our analyses and in-depth studies.

# iPOPY - innovative Public Organic food Procurement for Youth



Anne-Kristin Løes, Norway



## AIM



To study how increased consumption of **organic** food may be achieved by the implementation of **strategies** and instruments used for public procurement of organic food in serving outlets for young people.

**Supply chain** management, procedures for **certification** of serving outlets, stakeholders' **perceptions** and participation, as well as the potential of organic food in relation to **health** and obesity risks, will be analysed.



# Overview of the project

## **Project partners:**

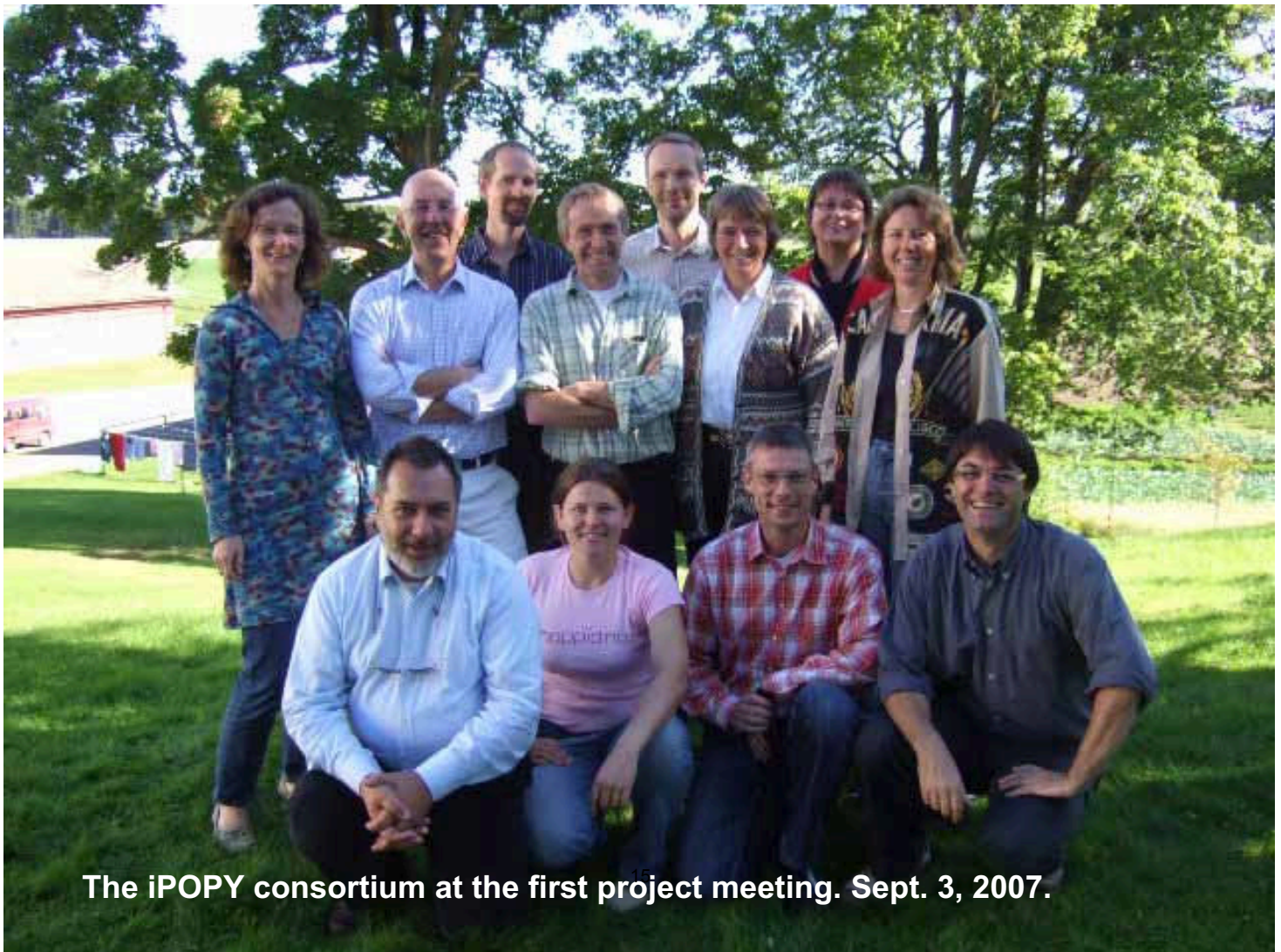
Technical University of **Denmark** , University of Helsinki, **Finland**,  
University of Milano, **Italy**  
Bioforsk Organic, **Norway**

## **Cooperating partners:**

The National Food Institute, Denmark  
ProBER, Italy  
Norwegian Institute of Consumer Research (SIFO), Norway  
University of Applied Sciences, Münster, Germany (paid by Norway)  
Technical university of Berlin, Germany (paid by Norway)

## **Work packages:**

WP1: Project management, conclusions and knowledge dissemination.  
A.K.Løes, Bioforsk Organic  
WP2: Policy analysis.  
N.H.Kristensen, Technical University of Denmark.  
WP3: Supply chain management and certification  
R.Spigarolo, University of Milano  
WP4: Consumer perceptions, practices and learning  
G.Roos, SIFO  
WP5: Nutrition and health  
B.E.Mikkelsen, The National Food Institute, Denmark



The iPOPY consortium at the first project meeting. Sept. 3, 2007.



# Focus on school meals



## **Norway and Denmark:**

Home-made sandwiches, debated.

- Many teen-agers drop them
- Those most in need of healthy food most often drop the lunchbox
- No good eating environment
- Subscription schemes to milk, juice and fruit.
- Free fruit for grades 8-10 in Norway.
- Organic project to increase the interest for home-made lunch boxes in Denmark
- Catering projects run by schools
- Catering companies serving schools
- Municipal kitchens serving schools



# Focus on school meals



## **Finland and Italy:**

Daily warm meals for all; under pressure.

- Utilising the meals to activate children and learn about healthy food and food culture
- Projects<sup>16</sup> to introduce/increase the share of organic products

# **WHY WORK TRANSNATIONALLY?**

- iPOPYP will produce important knowledge for the design of future European policies, and hence is of interest on a European level.
- Former trans-national research in public procurement systems for organic food is scarce
- Research in food systems serving young people is limited
- Transnational work ensures a critical mass of POP cases, and a required variation among national and cultural conditions
- Collaboration to exchange experiences and methodology to ensure a required scientific quality
- By joining researchers/institutes, different scientific approaches meet, and true inter-disciplinarity arises
- Great need for POP research networks. Existing European networks are practical, i.e. Biofach "Out of home"; Nordic "Healthcat". POP innovation is driven by practise!

## **Expectations: More organic food for the youngsters!**

- By increased demand, knowledge and interest
- By more efficient instruments and policies
- By more readily accessible organic products of right quality
- By adapted certification standards and procedures
- By innovative educational practice
- By increased proof and knowledge of the reasons to prefer organic



## **A comparative study of healthy sustainable school food**

Nielsen, T., Kristensen, N.H.

*DTU Management, Technical University of Denmark, Section for Innovation and Sustainability,*

*The focus for this article is two of the most important challenges in contemporary society today, namely healthy school food and development of a sustainable food production. The study of the four iPOPY partner countries, Denmark, Finland, Italy and Norway, suggests a number of interesting findings. The national reports were produced as a mapping of available statistics and public information, in some countries combined with interviews with key informants such as public bodies, private companies and other experts. For this purpose – and for the purpose of being able to compare the findings - comprehensive guidelines for the national reports were developed.*

### **Background**

The historical background of school food in different European countries shows a considerable variation in terms of actors, background and values. The school meal systems are organised in very different ways in the four countries, especially with the division of Denmark and Norway without a national school meal system on one hand, and Italy and Finland, both with national school meal systems, on the other. This evidently has a significant bearing for what kind of subjects regarding school meal systems that are mainly discussed in the four countries. In Denmark and Norway much of the discussion is about whether there should be an obligatory school meal system in the respective countries, and if so – how should it be organised. In Finland and Italy the discussion is mainly about the quality of the food served in the existing school meal systems.

Often the initiatives to change the school food in a qualitative direction stems from the government and in other countries the changes occurs in spite of the government's action, e.g. individual school leaders, parents or other groups. We have found considerable variation in the kind of role the different actors play in different countries. Due to the different political choices at national and municipal level, the schools play different roles in the different countries. Often private companies are involved in the production and distribution of school food. In Italy we also found examples on co-ownership between private and public institutions.

In Italy the most important actors in promoting the use of organic ingredients in the school meals seems to be found on the political levels, since organic ingredients are mentioned in laws.

There are few examples of municipalities/counties in the other three countries that make an effort to promote the use of organic ingredients. In Denmark and Norway there are municipal projects with the objectives of making the participating cities or municipalities more environmentally friendly. The use of organic ingredients in public procurement can be part of such projects. In Finland “a large number of municipalities organise organic or local organic meal days or weeks, whereby the whole meal or nearly all the ingredients are organic or local organic”

The discussion about school meals in Finland and Italy do concern environmental and sustainability issues (discussing organic and domestic products) whereas in Denmark and Norway “there is only a little focus in the public debate to combine these issues”. This is also the case in the political debate, at least in Denmark, apart from the few municipalities participating in the “Dogme 2000” project and the municipality of Roskilde. Here the health issue is taking up most of the debate.

## Barriers

The barriers mentioned for implementing organic ingredients in the school meal systems are, apart from the barriers originating from the fact that these ingredients are more expensive and more difficult to purchase, different in the respective countries. Barriers mentioned are: Quality, local conventional vs imported organic food, lack of food security from distributors etc

## Findings

The comparison of school meal networks in general highlights the importance of the specific national respectively regional public school meal systems and their development path. The well-established school meals in Italy and Finland require a high level of professionalism and administrative capacity as well as efficient and safe supply chains. On the other hand, Denmark is only introducing school meal concepts, comprising a many different activities and pilot projects. In Norway, the debate on school meals, beyond subscription schemes for milk and fruit, has only started, but significant public funding is used to support free daily fruit serving for all pupils in grades 8-10. Due to less activity in this field, Denmark and Norway a sophisticated regulatory and institutional framework for school meals.

The introduction of organic food has proceeded most efficiently in Italy, a country known as a champion in food culture and organic food production. In Finland, the school meals are working efficiently, there seems to be strong voices against changing them, and there seems to be less interest to emphasise the quality aspects than was the case in Italy over the last decade. In Finland, regional/local food respectively ingredients are considered as more important than organic food, however, none of the aspects are very high on the agenda. In Denmark and Norway, organic food seems to be of small importance in the public debate about school meals. However, the new field that public serving of school meals comprises may offer an opportunity to introduce organic food into school meals because the situation is not fixed, and new actors – including promoters of organic school food - might enter the arena. E.g. new companies offering organic catering might be such a player (also in Norway, we have specialised organic fruit companies!), whereas the lack of organic supply chains hampers the development of organic school food. This result points to the role of actors in the third part of the paper.

## Discussions

In all countries, the school meal was historically formulated as and based on social aims and proposals. The modern (actual) aims of the meal systems seem more complex, as the aim has been augmented with a spectrum of issues like (public) health, learning, social aspects, sustainable/organic, convenience etc. These are formulated objectives, and to a certain extent prioritized in this order, according to the specific key-actors' major policies.

Resource allocation to school meals are a topic in all countries, which means that although not based on a 'free-market' principle of balance between supply and demand, the school meals are facilitated with a relative low resource allocation in all countries. In Italy exceptions for being organized with low budgets are identified.

The legal framework on school meals that exists in Italy and Finland comprises a useful instrument in these countries although the part covering organic food in the Italian schools does not seem to be fully implemented in all municipalities. In Finland this facilitate that the employed in the school meal settings are skilled and educated professionals.

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- Løes, Anne-Kristin, Matthias Koesling, Gun Roos, Liv Birkeland, Liv Solemdal, Bioforsk Report Vol. 3 No. 43 2008, iPOPY discussion paper 4/2008, Organic and conventional public food, procurement for youth in Norway.
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# A comparative study of healthy sustainable school food

IFOAM conference 2008, Modena

**Thorkild Nielsen**

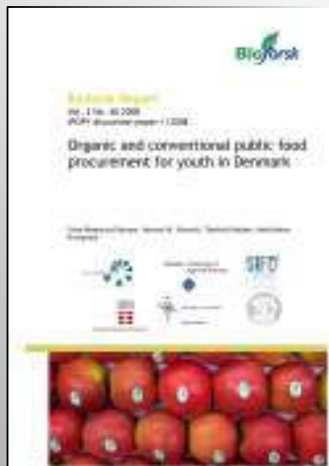
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DTU Management Engineering

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DK-2800 Lyngby

e-mail: t.nielsen@ipl.dtu.dk



Four national reports

# School meals in four countries

- Italy and Finland
  - School meal for all children, guaranteed from national regulation.
  - No discussion about school meals or not.
- Denmark and Norway
  - No national regulation, few local initiatives. Lunch boxes still the normal picture.
  - Big discussion about school meals or not

## Lunch boxes or meal systems



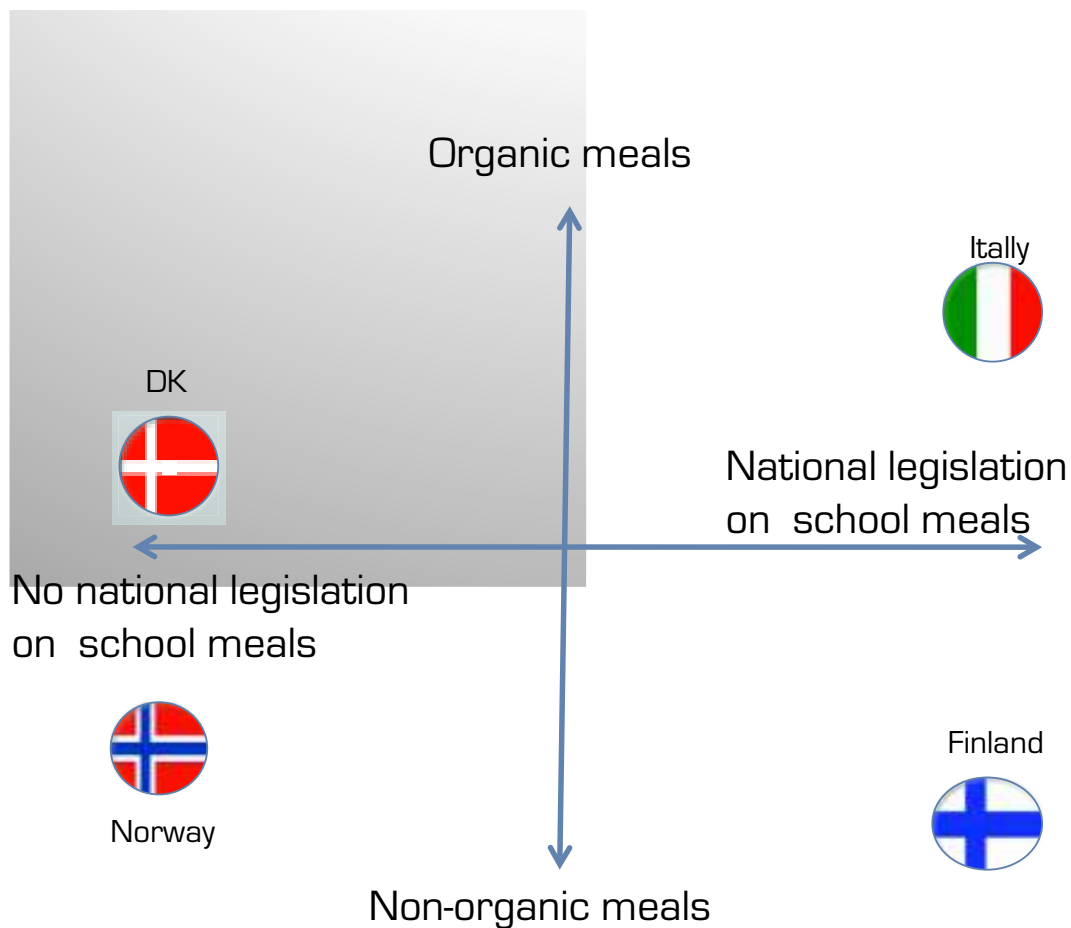


# Why school meal systems?

- A project to **improve welfare**:
  - Improve food habits for **all** children (social dimension)
  - Obesity
- A way of improving students' **ability to learn**:
  - Improve **concentration** skills (scientific research)
- Teaching students about **food culture**
  - Involvement (differences in countries)
- **Service agreement** for busy families:
  - Modern life

# Why organic?

- Health
  - Nutrition
  - Unwanted "elements"
- Environment
  - Drinking water pollution
  - Biodiversity
  - Animal Health
  - Green House Gasses
- Quality / ethics
- Local food



## Challenges

- Bureaucratic and different labelling rules in countries
- Still limited product range /suppliers /caters
- Catering customers are spread and make logistics non-profitable (different systems)
- No reliable statistics on the market size and segmentation (Except Italy)
- Many different agendas put pressure on "the organic agenda". Need for carriers (differences)

# Conclusions

- In all countries the school meal is historically formulated on social aims.
- Resource allocation to school meals are a topic in all countries,
  - focus on costs in all countries but differences
  - organic foods are pressed by increasing food prices
- Health related issues are taking up almost all of the agenda regarding school meals (although differences)
- Countries with no legal framework on school meals are dependent on different stakeholders (parents, school leaders, politicians etc)



THANK YOU

## **A successful method for increasing purchase of organic food in public catering – examples from Scania Sweden**

Andersson, K.<sup>1</sup>, Andersson, G.<sup>1</sup>

Key words: Public catering, organic food

### **Abstract**

*Organic Marketing Centre has actively worked for an increase of the purchase of organic food by the public catering sector in Scania Sweden since 2001. During this period the percentage of organic food purchased by the public sector has increased from less than 1 % in 2001 to 6 % in 2006. The share of organic milk (1,5 % fat) sold to public sector in Scania has increased from 23 % in 2001 to 49 % in 2006.*

*The method used in our work is the following: First we initiate the formation of a team of decision-makers in the local authorities. They then suggest an objective for the purchase of organic food, to be politically decided. The objective has to gain approval from all parts of the organisation. After that a strategy for implementation must be formulated. The public procurement process must be adjusted and purchase routines changed. Usually education of staff is needed to increase the understanding why and how they are going to buy more organic food. After that the strategy can be realized. The last but not least important step in the process is the follow-up of the results that should be a part of the strategy. When the objectives are full-filled it is time to formulate new and more ambitious ones.*

*The local authorities, which have formulated clear objectives for the purchase of organic food, are also those that consume the highest proportion organic food.*

### **Introduction**

In March 2006 the Swedish Government submitted the communication "Organic production and consumption: Objectives and focus until 2010" to the Parliament. The communication set out the objectives for organic production which are that 20 % of the acreage should be certified organic in 2010. It also states that 25 % of the purchased food should be organic by 2010.

The public food sector in Sweden includes for example breakfast, lunch and snacks in child care, school lunches and meals in the health care and hospitals. The public sector represents about 9 % of the total food sector in Sweden, with a sales value of about 1,85 billion EUR. In 2006 about 6 % of the food purchase to the public sector was organic.

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<sup>1</sup> Organic marketing centre, EMC, Anckargripsgatan 3, S-211 19 Malmö, Sweden, E-Mail [kerstin@ekologisktmarknadscentrum.org](mailto:kerstin@ekologisktmarknadscentrum.org) Internet [www.ekologisktmarknadscentrum.org](http://www.ekologisktmarknadscentrum.org)

## Materials and methods

The Swedish Agricultural Board and regional funds have financed a series of projects carried out by Organic Marketing Centre (EMC) with the aim of increasing the purchase of organic food in the public catering sector in Scania between 2001 and 2007. EMC started to make a survey in 2002 of the objectives concerning organic purchase and the real amount of organic food purchased by the 33 municipalities of Scania. This survey has been repeated every other year.

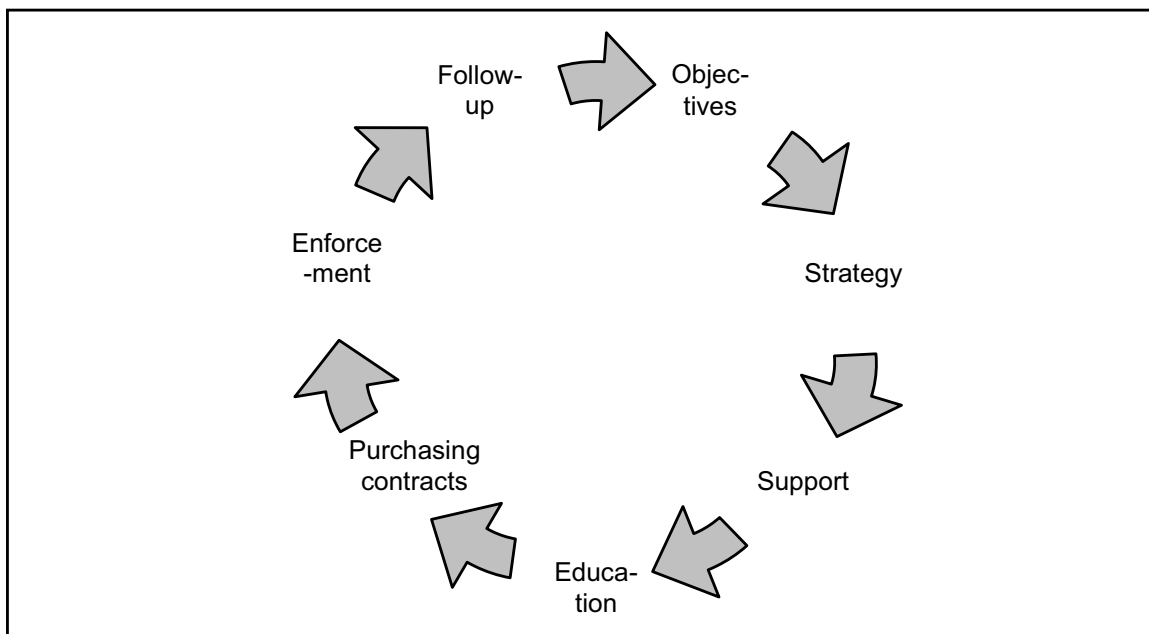
EMC has also developed a successful method for implementation of objectives in the local authorities

The method used is first to form an implementing team in the municipality. It can consist of the purchasing manager, the manager of catering, headmasters and other persons in decision-making positions.

If not decided yet, the team suggests an objective for the purchase of organic food for the municipality, which must be politically decided upon. Then the objective has to gain approval both from the top and from the bottom of the organisation.

After that a strategy for implementation of the objective should be formulated. This describes which products to start with, which units to involve etc. The public procurement process must be adjusted and purchase routines maybe changed.

Usually education of staff is needed to get them to understand why and how they are going to buy more organic food. Then it is time for the strategy to be realized. The last but not least important step in the process is the follow-up of the results that should be a part of the strategy. When the objectives are full-filled it is time to formulate new and more ambitious ones.



**Figure 1: Schematic description of implementing method**

## Results

Since EMC started the surveys and the initiation of implementing teams in the Scanian municipalities in 2001 the number of municipalities with clear objectives on organic consumption has increased from 4 to 16 out of 33 possible, see table 1. The total share of organic food in Scanian public catering sector was 6 % in 2006 and increased to 9 % in 2007, which represents a value of 5,9 million EUR.

**Tab.1: Development of the number of Scanian municipalities with objectives between the surveys made by Organic Marketing Centre**

Year	Number of municipalities with objectives	Percent
2001	4	12
2003	11	33
2006	16	48

In 2007 57 % of the municipalities in Scania spent more than 1 % of their food expenditure on organic food, see table 2. The numbers for 2007 are even higher. The bigger cities have a higher percentage than the smaller ones.

**Tab.2: Number of Scanian municipalities spending different percentage of their food expenditures on organic food 2006 and 2007**

Percentage organic purchase	Percent 2006	Percent 2007
< 1	64	43
1,1 -4 %	12	24
4,1 – 10 %	15	18
10,1 – 20 %	6	12
> 20 %	0	3

Milk is a product that is easily converted from conventional to organic. The organic share of the most common variety of milk (1,5 % fat) is used as an indicator of the development of organic purchases. In table 3 this figures are presented.

**Tab.3: Share of organic milk 1,5 % sold to the public sector in Scania**

Year	Percentage organic milk
2001	23
2002	30
2003	32
2004	38
2005	41
2006	49
2007	58

## Discussion

There are different ways to implement and encourage an increased use of organic food in the public sector. A combination of benchmarking, the method described in the paper and a clear leadership has proven successful. It is important to allow the process to take time if the result should be sustainable. Since about one year the deficit of organic products especially milk is the main obstacle for increased purchase of organic food to the public sector in Scania.

## Conclusions

The local authorities, which have formulated clear objectives for the purchase of organic food, are also the ones that have the highest proportion organic food purchased. Clear objectives are strong incitements for the employees to really take action and start buying organic food.

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### *Book:*

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### *Book in series:*

Andersson, K. (2004): Ekologisk mat inom offentlig sektor i Skåne Rapport nr 2, 2005 Ekologiskt Marknadscentrum i Skåne

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Delfi: Delfi Guidenytt 1 2006: [http://www.delfi.se/pdf/Delfi\\_guidenytt\\_nr1\\_2006.pdf](http://www.delfi.se/pdf/Delfi_guidenytt_nr1_2006.pdf) (accessed 2007-10-23)

# Organic food in public catering, Scania Sweden

Gunilla Anderson  
Organic Marketing Centre

## Catering in the public sector in Sweden

- Schools (free school lunches)
- Kindergartens & day care
- Catering for elderly people
- Hospitals
- Social institutions
- Prisons
- Defence





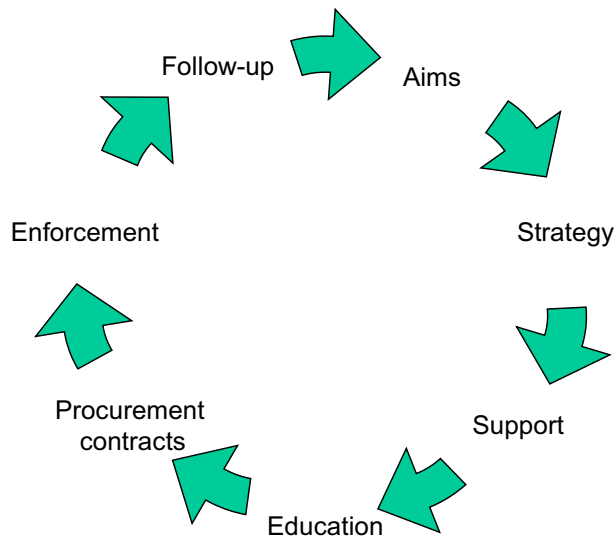
## Organic food in public catering

- National aim: 25 % organic food in 2010
- Large volumes
- Faithful customer
- Political will
- The children are the future

## Towards 25 % organic food in public sector in Scania 2010

- Started 2001
- Financing from national and regional funds
- Reference groups in municipalities
- Visits and work on municipality level
- Networking
- Forwarding market signals

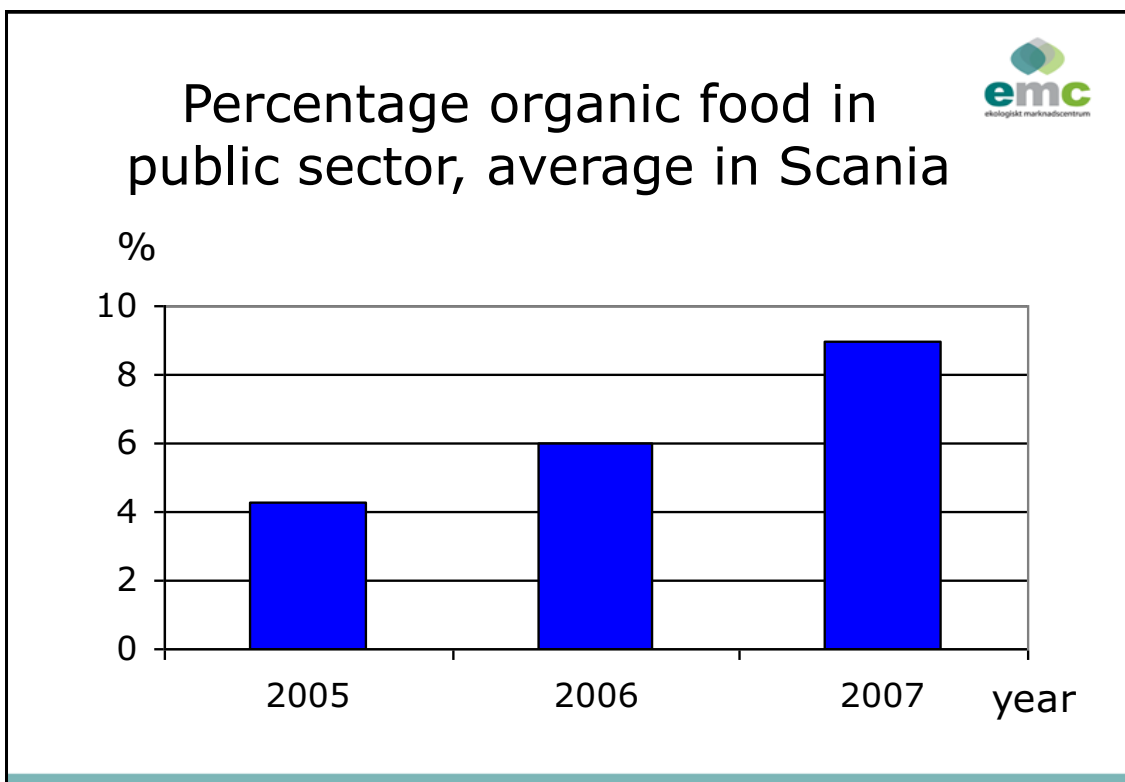
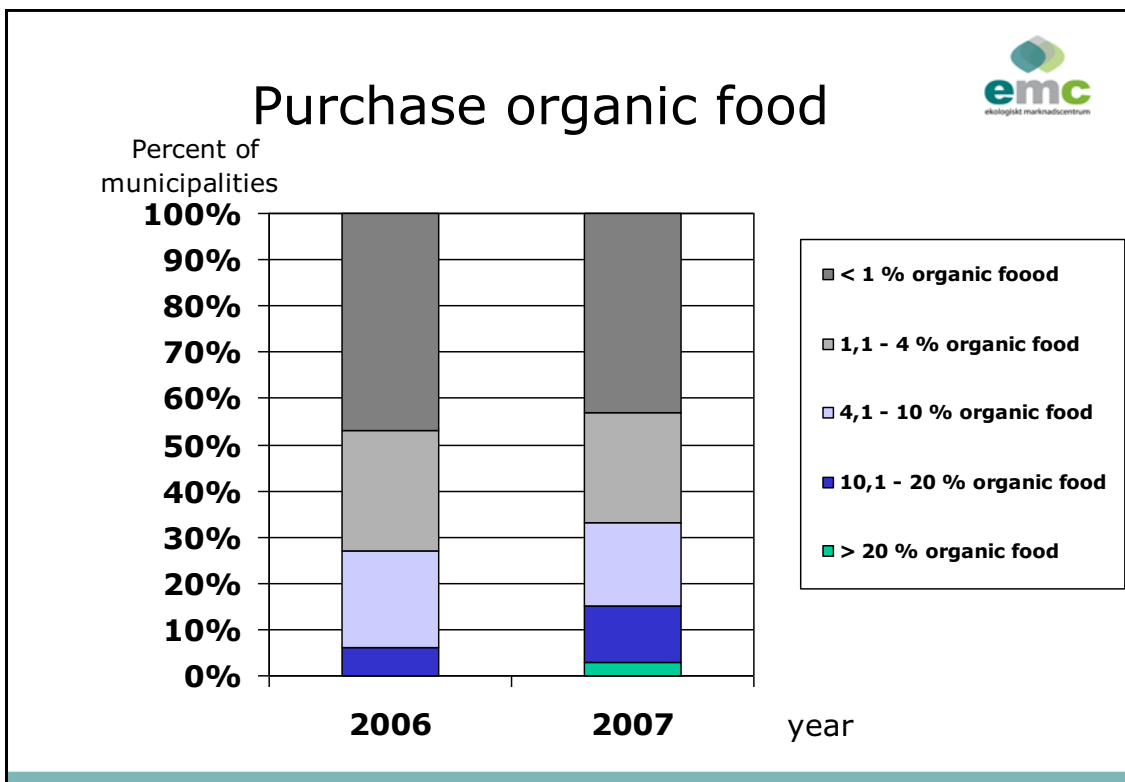
## Successful method



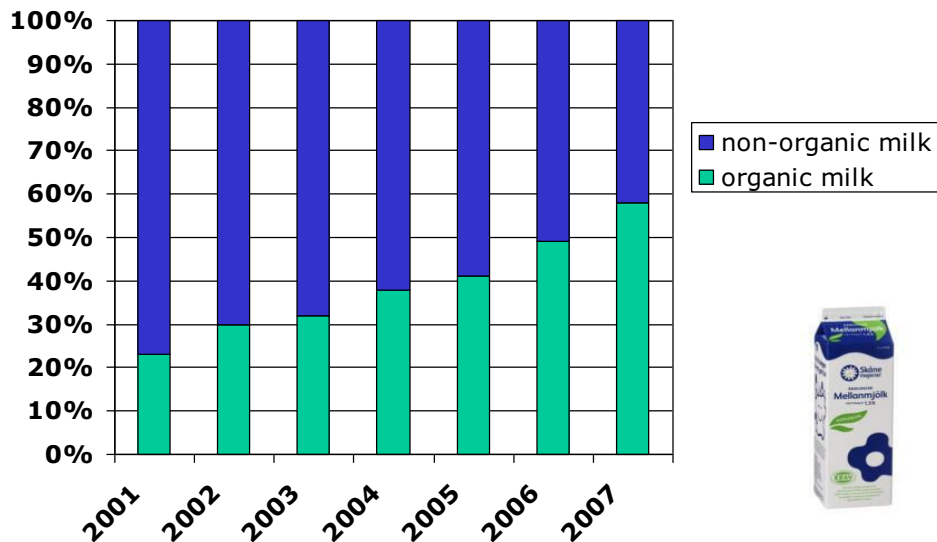
## Results



Year	Number of municipalities with aims on organic food	Percent
2001	4	12 %
2003	11	33 %
2007	16	48 %



## Organic milk (1,5 %) sold to public sector in Scania



## Conclusions



- Municipalities with clear aims buy more organic food
- Clear leadership a condition for success
- Education important to make informed choices
- Shortage of products the largest threat to development of organic food in public sector

Thank you for your attention!

## **Current Situation of School Lunch and possibility of catering organics in Japan**

Presentation by Kenji Matsumoto(Japan)

1. The food supply after the second world war was so short.

In 1946 the school lunch program was introduced in the major cities and then every year it was expanded to the local cities. Main purposes were to keep health of the children who attended public schools which are primary school(age;7to12) and junior high school (age 13 to 15) and especially to provide to children of poor family. Due to short supply of Japanese agricultural products, imported powdered milk and wheat from US were utilized.

2. In 1954 when rice and other production had been improved, the School Lunch Regulation was revised, positioning it as one of education program.

The aims were as follows

- 1) to make them understand nutrition value of food and good eating habit
- 2) to make them enrich school life and cultivate sociability
- 3) to improve nutritional intake and promote good health
- 4) to make them understand agriculture and fishery , distribution and consumption of food.

Those aims are still now very important, but for 50 years, those aims have been overlooked. The recent 20 years, as “efficiency” became the most important issues even in management of school lunch, reduction of expense was emphasized. As the result, the school lunch program was down graded as “cheap lunch by using tax” and lost “ educational aims” and “flexibility or creativity of each school” .

The problems noticed during those 50 years were

- 1) defects of cooking and catering center
  - wide-spread food poisoning by 0-157 and imported pesticide contaminated foods
  - standardized easy-to-cook menu
  - plastic plate
- 2) lack of dietitian and cooks.
- 3) lack of communication between supply-side and children
- 4) lack of careful attention to individual physical condition

Those who realized the above mentioned problems of school lunch started to reconsider educational effect of school lunch and to seek feasibility of introducing

new school lunch program. Some of consumer movement organization joined its effort against pesticide and additives used for school lunch. Also they encouraged to use local agricultural products and in some case, organic products.

Examples: Ochiai school in Shinyuku,Tokyo, Sakai Minami School in Musashino,Tokyo, Knou School in Fukushima

### 3. The Japanese Government implemented the Food Education Law in 2006 and

This law aims

- 1) to solve food related disease ,food allergy and so-called life style disease such as un-balanced nutrition, obesity, extremely slim body, irregular intake of meal, no breakfast etc.
- 2) to promote local production and local consumption to strengthen agriculture in Japan.
- 3) to keep traditional food in each local area.

Accordingly, the School Lunch Program has been revised this year.

### 4. The current system of the School Lunch

- 1) The Ministry of Education is responsible for guidance and supervision of the school lunch program.

The local government is responsible for implementation in its own area.

- 2) Two methods of cooking and catering lunch to school

\* School lunch catering center . The center ,mostly owned and operated by the local government, cooks and delivers to several schools.

\* Own kitchen in the school.

To prepare and cook school lunch at its own site.

A qualified dietitian and cooks are required in each place.

- 3) Average fee for school lunch per meal

230 yen to 250 yen per child.

Expense for facilities and wages of dietitian and cooks are paid by the local government.

- 4) Statistics of number of schools and children who receive school lunch.

	Number of school	number of children	% of
Primary school	23,420	7,200,000	98.7 %
Junior High School	11,120	3,667,428	78.%

Almost one half of all primary schools has its own school kitchen

### 5. Possibility of catering organic school lunch

Now many people at local governments, school lunch caterers, parents and teachers associations realize importance of school lunch and make efforts to restructure the

school lunch program.

In 2007, the Promotion of Organic Agriculture Law and related regulations were established, in which organic foods by school lunch program is included as one of important issues.

Considering those changes in the Japanese society and governmental policies, we Believe the organic food school lunch will grow steadily if we can continue to solve major problems such as

- 1) to change rigid control of central catering system to more flexible management of own school kitchen system
- 2) to increase supply of various organic products at local level
- 3) to train and hire dietitian and cooks as qualified persons
- 4) to get local government support.
- 5) to allow increase of lunch cost by offsetting increase of fee or getting subsidy by local government.
- 6) To educate students ,parents and teachers about important function of organic agriculture at school and outdoors.

## 6. Two examples of school lunch

### 1) Takaido Primary School in Suginami-ku Tokyo

( residential area in the suburb west of Center of Tokyo)

- School kitchen (Suginami-ku has no central kitchen)
- One dietitian and three cooks
- 450 students
- Purchase through retailers by the order of dietitian
- No processed food purchased except soy-sauce and other sauces
- Fresh vegetate (like vegetable salad) is allowed to serve
- Teacher eats together with students in its class room( sometimes, in meeting room)
- Daily menu for next month is made by following guideline made by the Suginami Lunch menu committee
- rice; 4days per week, bread; 2 days/month; pasta; 2days/ month
- Dish; mixed style of Japanese, western and Chinese foods.
- Drinks: milk; every day

Although the dietitian knows local production and organic products, it is not yet her plan to add it to lunch due to difficulty to buy and high price.

### 2) School lunch in Imabari City in Shikoku Island

People in Imabari city has been very much committed in promoting local production of sustainable and organic agriculture and local consumption since 1982.

In 1988, the city congress declared that it will establish food security and stable supply to its citizens by strengthening local production of specially cultivated (meaning decreased use of chemical fertilizer and pesticide) or organic agriculture. Since then, they took step by step approach to strengthen organic agriculture and to add organic and traditional foods to school lunch.

The Imabari City has the basic policy in relation to agriculture and education.

- 1) To promote local production and local consumption
- 2) to promote food education especially to school children
- 3) to promote organic agriculture.

By following the basic plan, its school lunch program is made

- 1) to increase number of school kitchen facilities, replacing catering center operation.  
(Now 23 school facilities and one center caters 15,600 lunch each day)
- 2) to use local products  
(in case products are not available in Imabari, they choose those from the same prefecture, if not from Shikoku Island and so on.)
- 3) to use organic products, especially products in season
  - a) Tachibana district: organic vegetables share 50 % of total 1700 lunch per day.
  - b) Other districts are trying to increase organic products, which volume is less than in Tachibana district.
- 4) to use specially grown rice 3 days per week. Organic rice is not yet sufficient.
- 5) to make bread with locally produced wheat by a contracted small bakery.  
(It is very common to use imported wheat from US for bakery, but Imabari tries to stimulate farmers to grow wheat even in small scale.)



OWC July 19th.

# School Lunch Program & Possibility of Catering Organics in Japan

Japan Organic & Natural Foods Ass.  
Kenji Matsumoto



This report is made in cooperation with  
Mr. Noda of Daichi-wo-mamoru-kai &  
Mr. Yasui of Imabari City Government &  
Takaïdo Primary School



## **From food shortage to sustainable society**

1946 School lunch program

to keep children healthy

to provide to children of poor family

1954 Revision of school lunch program

The aims were over-looked for 50 years.

Efficiency was emphasized.

2000 JAS Organic Regulations implemented but  
no impact on school lunch

2006 Food Education Law

2007 Organic Agriculture Promotion Law

2008 School Lunch Program revised.

Those three law and regulation will stimulate  
school lunch catering with organic products

## **1954 School Lunch Program**

Aims of food education

1. understand knowledge of nutrition and good eating habit
2. enrich school life and cultivate sociability
3. improve nutritional intake and promote good health
4. understand production, distribution and consumption of food

## Problems caused by efficiency

1. Defects of catering center
  - food poisoning by 0-157, contamination by pesticide
  - standardised menu
  - plastic plate
2. Lack of dietitians and cooks
3. Lack of Communication between supplier and children
4. Lack of careful attention to individual physical condition of children

## Food Education Law

1. To solve food related disease, food allergy, so-called life style disease
2. To promote local production and local consumption
3. To keep traditional food in each area

## Statistics of School Lunch

	school	students	
Primary	22,436	7,100,000	98.7%
	(23,420	7,200,000	99.4%)
Junior	8,172	2,568,000	70.0%
	(11,120	3,667,000	82.4%)

( ) includes not only full meal but only snack or only milk.

## **School lunch in Imabari City (1)**

In 1988, Imabari City Declaration:

to secure safe food by strengthening local production of sustainable agriculture including organic agriculture in cooperation with the city government, consumers and farmers.

The basic policy for agriculture and education.  
to promote

- 1) local production and local consumption
- 2) food education especially to school children
- 3) organic agriculture.

## **School Lunch Imabari (2)**

The school lunch program

- 1) to increase number of school kitchen facilities, replacing catering center operation. (Now 23 school facilities and one center caters 15,600 lunch per day)
- 2) to use local products ( in case products are not available in Imabari, from the same prefecture, if not from Shikoku Island and so on.)
- 3) to use organic products, especially products in season  
Tachibana district: organic vegetables share 50 % of total 1700 lunch per day.  
Other districts are using less than Tachibana
- 4) to use specially grown rice 3 days per week. Organic rice is not yet sufficient.
- 5) to make bread with locally produced wheat by one contracted small bakery. (It is very common to use imported wheat from US for bakery, but Imabari is encouraging farmers to grow wheat even in small scale.)

## **Takaido Primary School in Suginami-Ku Tokyo**

- School kitchen (Siginami-ku has no central kitchen )
  - One dietitian and three cooks prepare 450 lunches
  - Purchase through retailers by the order of dietitian
  - Fresh vegetate (like vegetable salad) not allowed to serve
  - Daily menu for next month is handed to students. It is made by guideline of the Suginami lunch menu committee
- rice; 4 days/week, bread and pasta 2 days/month

Although the dietitian knows local production and organic products, it is not yet her plan to add it to lunch due to difficulty to buy and high price.

**cooked rice**



**broiled pieces of salmon**





# Workshop session 2

## Organic catering: problems and solutions





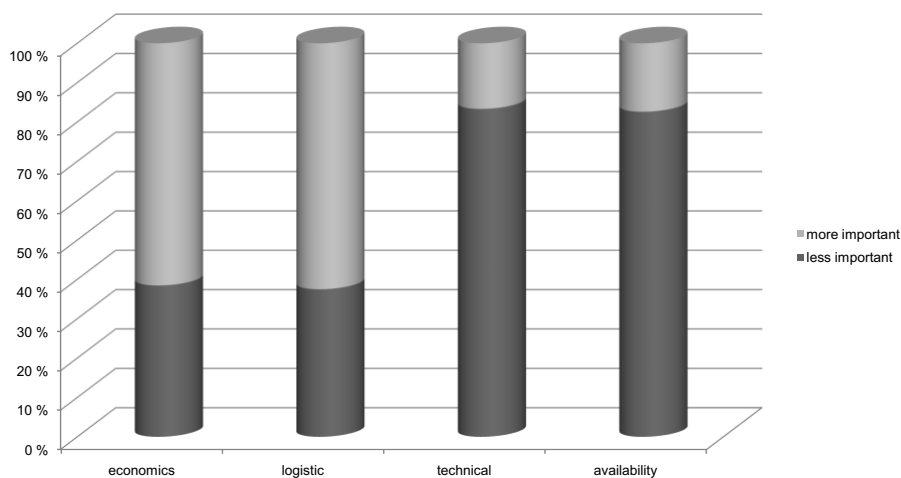
# IFOAM Congress Modena 2008 Workshop on Public Catering

Results of the survey on the opinions  
of the producers about POP  
(Public Organic Procurement)

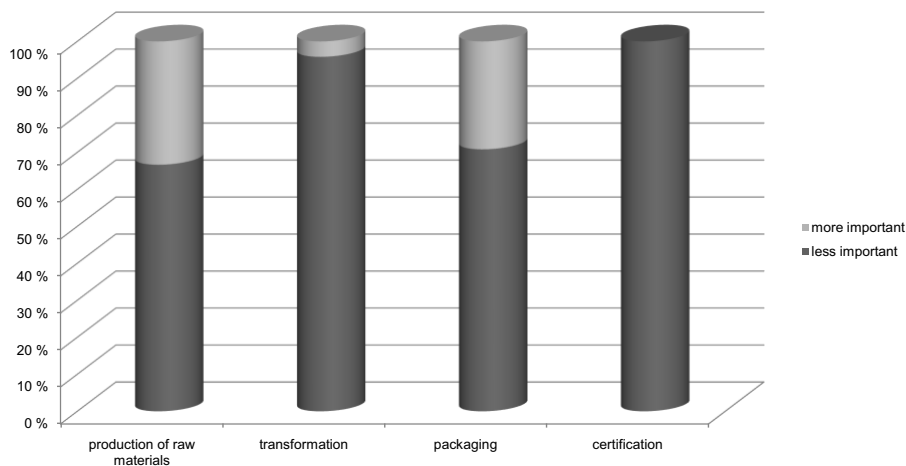
Questionnaires commented  
by Agnese Franceschi



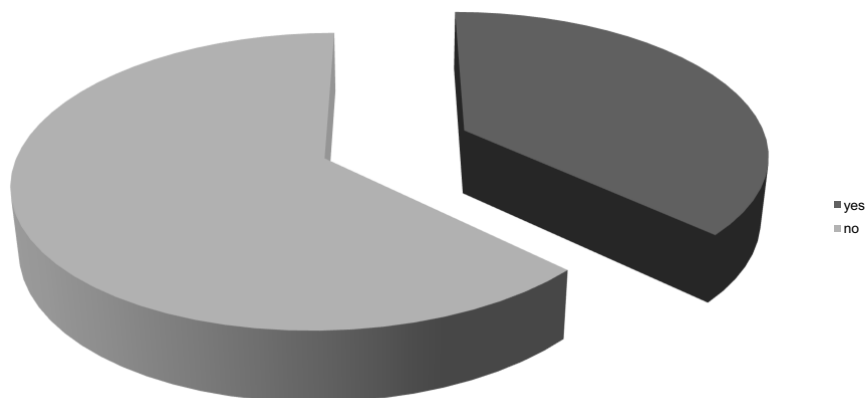
## What are the main constraints for the implementation of organic food in POP?



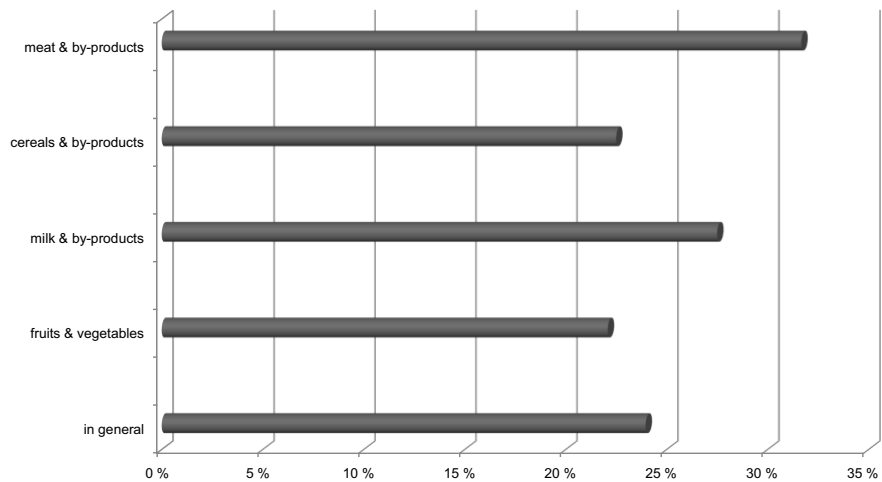
### In what area do you find the most important economic constraints in POP for schools?



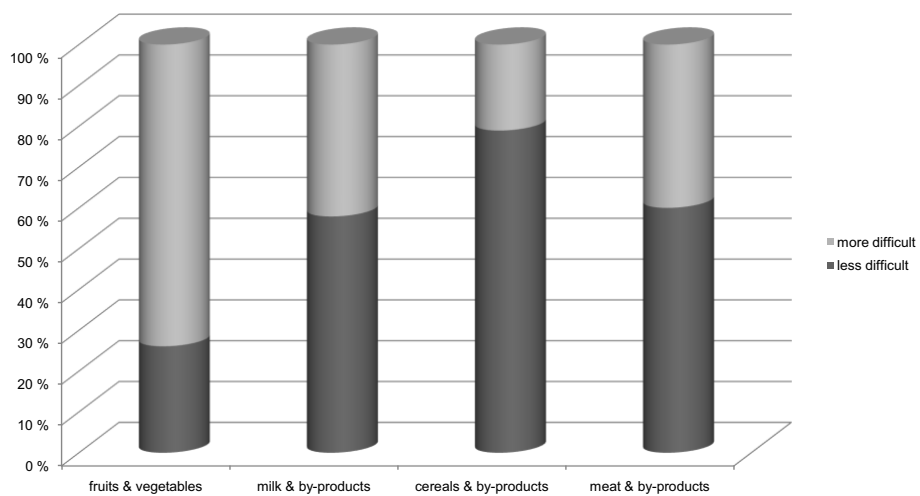
### Do you think that the school catering companies (or the municipalities) pay the right price for organic products?



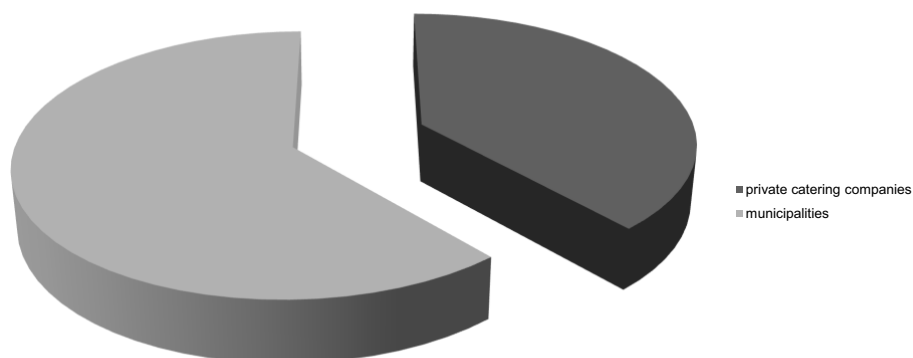
## How much is the plus production food cost of organic products (in relation to conventional foods)?



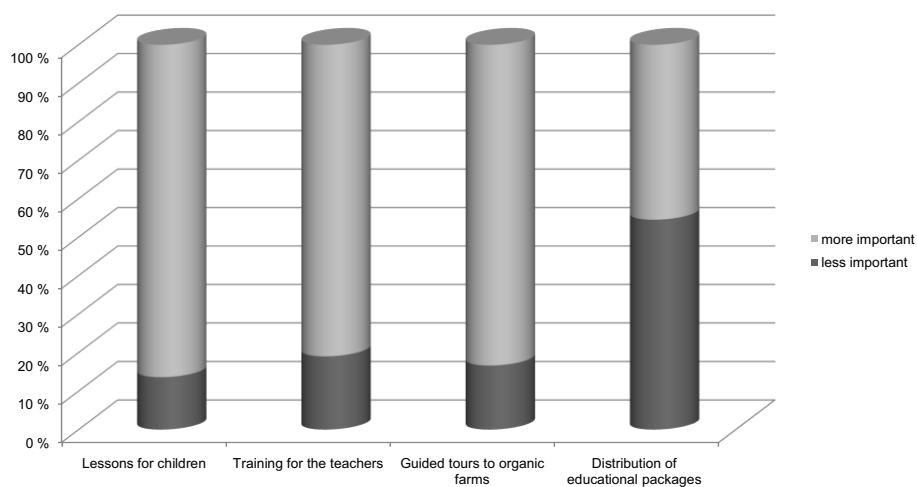
## What types of organic products are more difficult to produce?



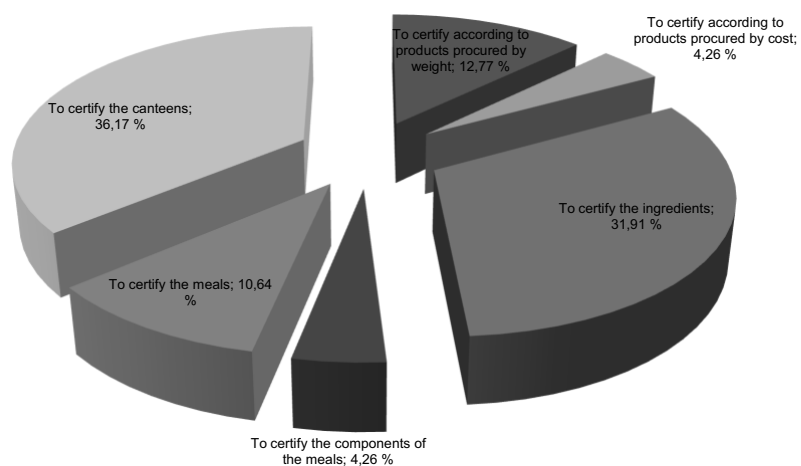
## What types of catering buyers are more interested to acquire organic products for school meals?



## What types of education activities do you think are more suitable to improve the knowledge of organic agriculture and the consumption of organic food in schools?



**If you will get an organic certification for your catering company, do you think that the best way is:**



# IFOAM Congress Modena 2008

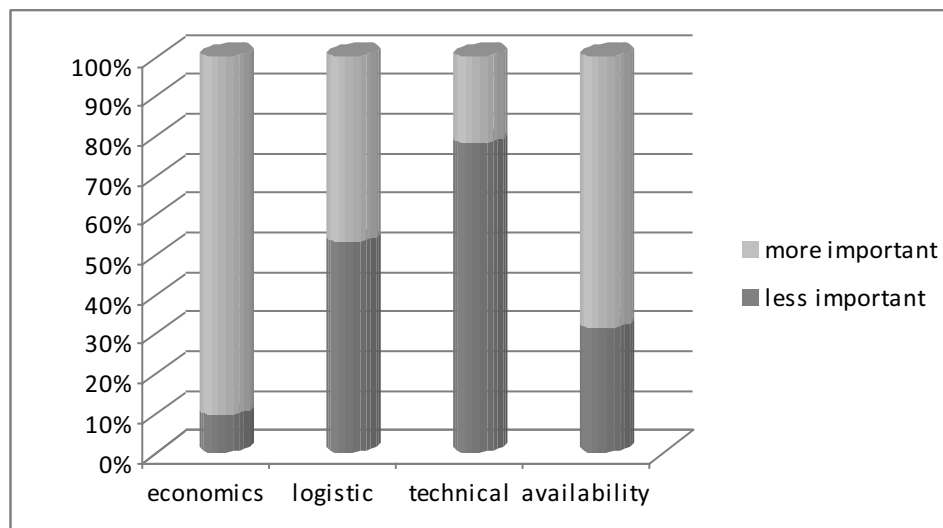
## Workshop on Public Catering

Results of the survey on the opinions  
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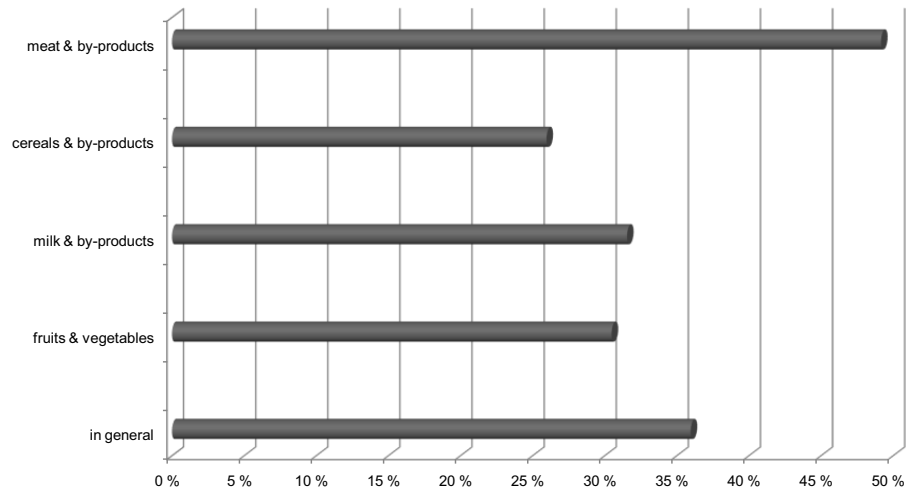
Questionnaires commented  
by Marco Valerio Sarti



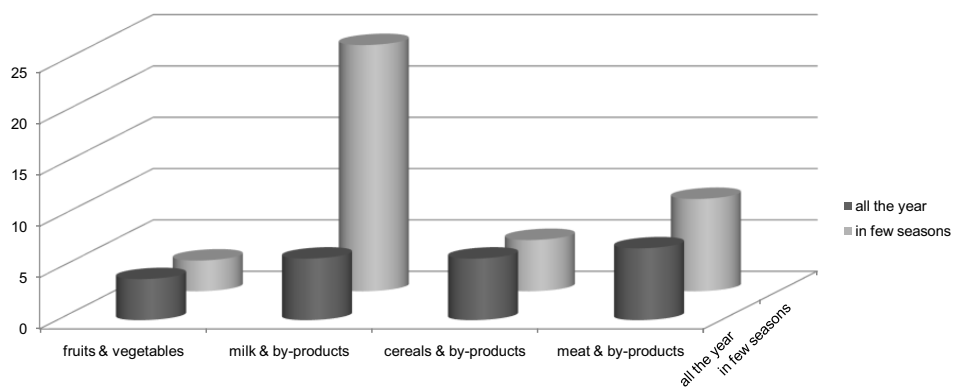
### What are the main constraints for the implementation of organic food in POP?



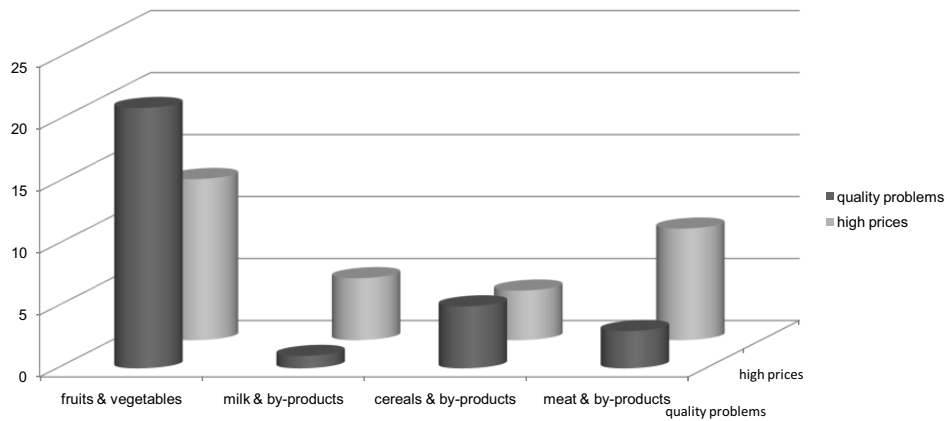
## How much is the plus production food cost of organic products (in relation to conventional foods)?



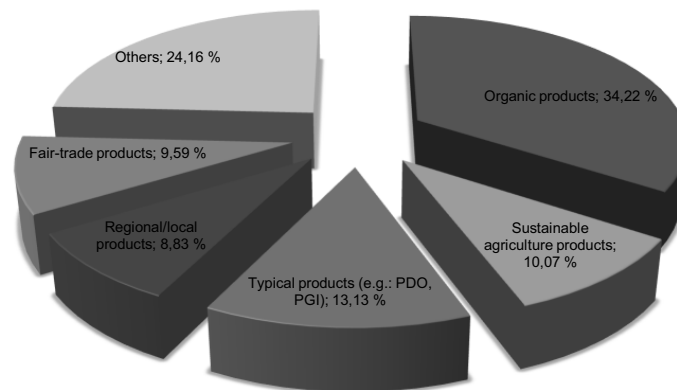
## What types of organic products are not available (when)?



## What types of organic products are not available (why)?

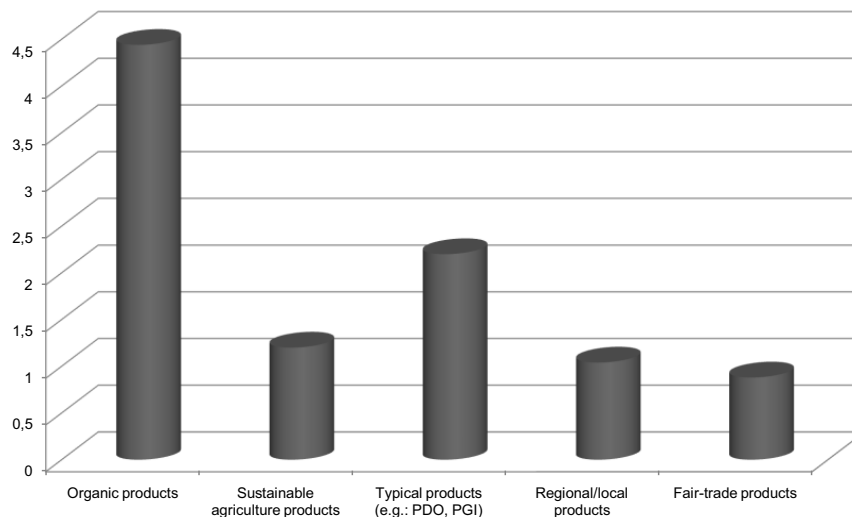


## How many “quality products” are there in the menu (% on weight)?

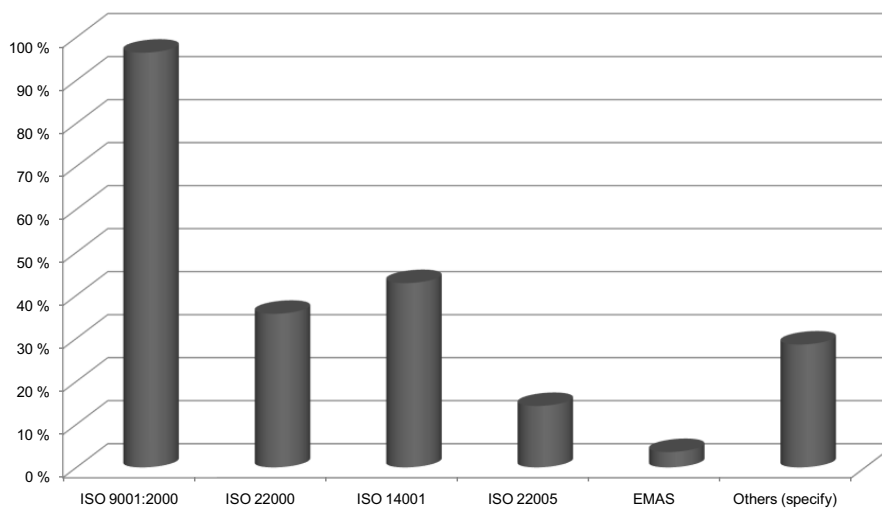




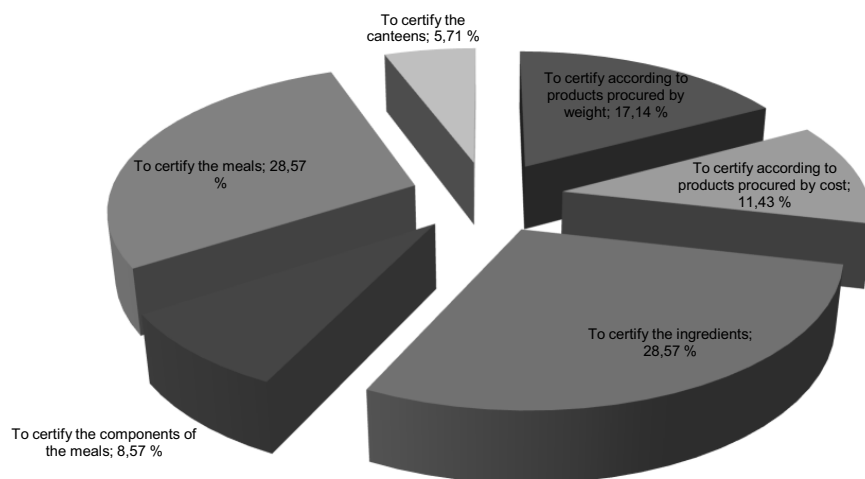
### How many days a week (in average) are the “quality products” served to the children?



### What types of certification does the company that manages the catering service own?



**If you will get an organic certification for your catering company, do you think that the best way is:**



## **Is there any certification of public organic procurement in iPOPY countries (DK, FI, IT, NO and DE)?**

Strassner, C.<sup>1</sup> & Løes, A.-K.<sup>2</sup>

Key words: iPOPY, organic, certification, public, catering

### **Abstract**

*On 24 June 1991, the Council of the European Union adopted Regulation (EEC) No 2092/91 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs. As well as defining the required method of production of crops and livestock they also regulate labelling, processing, marketing, import and inspection. The research project iPOPY compares and analyses procedures for certification of food-serving outlets within its participating countries (Norway, Denmark, Finland and Italy) using Germany as a reference. While Denmark chooses government agencies to carry out the inspection and certification, Italy, Finland, Norway and Germany choose a state-supervised private system. With the exception of Italy all have a national organic label. Currently only Germany has publicly adopted a standard organic certification programme for the out of home sector. Of the countries analysed, Norway has the most similar system, whereas Denmark and Finland offer operators defined categories of organic use. Though Italy leads in organic use in schools there appears to be no national or other verification system in operation.*

### **Introduction**

The Coordination of European Transnational Research in Organic Food and Farming (CORE Organic) partnership seeks to consider innovative marketing strategies with the goal of identification of successful marketing methods and local markets. Within this topic the public procurement of food and specifically the provision of organic food to public institutions needs to be better understood. Best practices and constraints are the focal point.

iPOPY – innovative Public Organic food Procurement for Youth is one of two projects charged with this research. The aim of iPOPY is to study how increased consumption of organic food may be achieved by implementation of relevant strategies and instruments linked to food serving outlets for young people in some European countries. Supply chain management, procedures for certification of serving outlets, stakeholders' perceptions and participation as well as the potential of organic food in relation to health and obesity risks are being analysed. An interdisciplinary research team spanning five European countries: Norway (NO), Denmark (DK), Finland (FI), Italy (IT) and Germany (DE) makes up the study group.

This paper focuses on a subsection of the third work package which looks at supply chain management and certification.

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## Materials and methods

Within this work package procedures for certification of food serving outlets in DK, FI, IT and NO are reviewed and analysed. DE is used as a reference country as developments and the current situation in Germany can be considered as one established method of an approach to organic foodservice certification. All countries are set against the background of the situation in the EU.

In a first step appropriate information about the procedures for certification of out of home operations is gathered and analysed by means of available web content on the pages of the relevant authorities and available scientific or trade literature. Special attention was given to public procurement of organic food and to school meals or school nutrition programmes. Also, country representatives within the iPOPY team reviewed the data gathered.

## Results

The legal framework for organic production of agricultural products in the EU is set down by Council Regulation (EEC) 2092/91 (CR2092/91) from June 24, 1991 and its amendments. This regulation is in force within the member states of the EU. As for Norway, the regulation was adopted when Norway signed the EEA (European Economic Area) agreement with the EU in 1994. The regulation provides the framework for organic inspection and certification of agricultural products and foods both from EU and non-EU countries. Member States decide whether they choose government agencies to carry out the inspection procedure or whether they choose a state-supervised private system. (BMELV 2008) Certification is usually conducted by private certification bodies which have national approval and/or national accreditation. The standards for accreditation are the EN 45011 and the equivalent ISO 65.

The EU regulations for organic production are currently revised, and a new council regulation (EC) No 834/2007 will be implemented from January 1, 2009. Though the new regulation is not significantly different from CR2092/91 and its amendments with respect to certification in general, it does differ greatly in that it specifically excludes "mass catering operations". Member States may apply national rules or, in the absence thereof, private standards, on labelling and control of products originating from mass catering operations, in so far as the said rules comply with Community Law.

Some of the rationale behind organic inspection and certification includes consumer protection from fraud and deception, equal market opportunities and transparency from farm to fork and beyond. These underlying principles contributed to the development of a standard organic certification programme for foodservice enterprises in Germany (Strassner et al 2003, 2004) with guidelines for operators (Strassner 2005). In Germany, the Federal Ministry of Nutrition, Agriculture and Consumer Protection is the authority with the responsibility for the CR2092/91. The ministry supervises the independent Federal Agency for Agriculture and Food which is empowered to conduct business on its behalf, such as registration of certification bodies. Due to Germany's federal structure, 16 supervisory authorities within the "Länder" (federal states) are responsible for 23 approved inspection bodies currently operating in the market. The private inspection bodies control and monitor compliance with the CR2092/91. On a national level, all agricultural products and foodstuffs from organic farming may be labelled with the German eco-label known as the "Bio-Siegel" including, under certain conditions, menu items. The company inspection number is

necessary for registration of this otherwise cost-free label. There are also private labels in use in the German market such as those of the Organic Agriculture Associations (Demeter, Bioland, Naturland, Biokreis, Ecovin, Gäa, Ecoland, Biopark).

In Italy the authorities of the State carrying the responsibility for the CR2092/91 are the Ministry of Agriculture (Ministero delle Politiche Agricole Alimentari e Forestali – MiPAAF) and its regional administrations. There is also the Office for Organic Agriculture and for Sustainable Agricultural Activities (Ufficio Agricoltura Biologica e attività agricole ecocompatibili) within the Administrative Office for the Agri-food Development, Quality and Consumer Safety (Direzione generale sviluppo agroalimentare, qualità e tutela del consumatore) which is authorised to undertake certain business with respect to organic certification. In Italy there are currently sixteen officially recognised inspection agencies and in German-speaking South Tyrol there are four German bodies. There is no national (State) label for organic agricultural products and foodstuffs. However, there are a number of private labels from the Certification Bodies of Organic Agriculture and from the large-scale retail trade (based on Pinton et al 2004). The verification of organic quality in public catering does not appear to be in current focus. The recent national and regional laws about catering systems, promotion, quality and organic foods are more of a patchwork of general rules and principles, generally without a sanction system (Bocchi et al 2008).

As a member of the EU since 1995 Finland implements the CR2092/91, whereby the Finnish Ministry of Agriculture and Forestry is vested with this authority. There are two control bodies for the compliance of activities CR2092/91. The 15 Employment and economic development centres host regional inspection bodies for primary producers and for processors, packers and third country importers as well as wholesalers the inspection body is Finnish Food Safety Authority, called Evira. The labels awarded by these officials to be used to refer to organic products are the 'Rising sun' label, owned by the Ministry of Agriculture and Forestry, and the common EU label, referred to in Finland as the 'Ear' label. The 'Rising sun' label carries the text 'Luomu' (in English 'Organic') and bilingual text Valvottua tuotantoa (in Finnish) / Kontrollerad ekologisk produktion (in Swedish) for certified organic production. Additionally, there is the 'Ladybird' label awarded by Luomuliitto ry (the Finnish Association for Organic Farming) based on compliance with CR2092/91 and amended with specific requirements of the Association for Organic Farming. Finally, Finnish biodynamic products have their own 'Demeter' label, awarded by Biodynaaminen yhdistys (the Finnish Association for Biodynamic Farming). The professional kitchens serving organic meals or portions or claiming that meal ingredients are organic, are obliged to register with Evira. However, if the kitchen informs about the use of organic ingredients, and does not present literal claims about organic meals, it is not obliged to be included in Evira's register for organic businesses (Hakkarainen. 2007). This 'information gap' is filled by the semi-official introductory scheme for organic food called 'Steps to Organic', organised by EkoCentria, a promotional body funded by the Ministry of Agriculture and Forestry through Finfood, Finnish Food Information Service, which is partly funded by the Ministry and partly by the member enterprises.

Denmark is exceptional in having an official set of regulations and a single unique symbol for organic products. It is further exceptional in that the State undertakes inspections itself. The Danish Ministry of Food, Agriculture and Fisheries is the highest authority in Denmark responsible for the CR2092/91. Only authorities under the Ministry of Food, Agriculture and Fisheries carry out inspection under the government rules for organic production. The Danish Plant Directorate inspects the primary production, while the Danish Veterinary and Food Administration inspects processing.

The “Ø”-label is the national inspection label of the State and its regulations are based on EU legislation. Private bodies include the Danish Association of Organic Agriculture, the Biodynamic and Demeter Associations (Norfelt 2005). Until now, Danish restaurants and caterers have been subject to CR2092/91, and have been considered as processor. However, the Danes have found that the food processing rules do not work very well for restaurants, especially regarding the documentary requirements. The new EU Regulation allows caterers to be treated differently. The Danish Food Authority has recently developed a proposal to allow restaurants and caterers to market themselves as bronze, silver or gold organic, where each level signals a certain proportion of the purchased raw materials to be organic. For bronze 20-40 % of the raw materials should be organic, for silver 50-95 %, and gold for when more than 95 % of the raw materials are organic. (Anon 2008)

In Norway, the CR2092/91 was adopted as a part of the EEA agreement in 1994, and Norway participates as an observer in the Standing Committee on Organic Farming (SCOF). The State authority charged with the responsibility for the CR2092/91 is the Ministry of Food and Agriculture. The Norwegian Food Safety Authority, called Mattilsynet is responsible for the certification of production, processing and distribution of organic food. It has delegated this task to the private organisation Debio, which manages inspection and certification of organic production (farms, processors and sales-points). Operators wishing to market organic ingredients and/or processed foods need to be certified by Debio. This applies to all operations within the food service industry, including institutions, schools, hotels, restaurants, cafés and cafeterias, catering services, fast-food joints etc. It also administers the Norwegian “Ø”-label, which is the property of Debio and as such a private label, but so far in practice the official and only organic label in Norway (Johnsen and Mohr 2000). Debio also carries out inspection of bio-dynamic production and administers the Demeter-label in Norway.

## Discussion

The analyses to date show that there is mandatory certification of commercial catering in DE so that where public organic procurement is from a private company claiming organic status, this must be verified by an inspection body according to the system in operation. Similarly NO has mandatory certification of foodservice operators, albeit with a slightly different system. DK and FI offer their operators defined categories of organic use whereas IT shows no mandatory national or public system for organic certification of foodservice operators.

## Conclusions

This first analysis has highlighted the organisational and in part cultural variance amongst DK, NO, IT, FI and DE with respect to their management of organic certification and its application to foodservice operations. In a second step interviews with certification bodies, ministries and stakeholders involved in the administration and implementation of the Council Regulation will be necessary to deepen the analysis. In the third step interviews with relevant stakeholders from the project's national user groups will be required to reveal attitudes and strategies towards certification. In this way, common elements relevant for the certification of public procurement kitchens/catering units serving organic food may be identified on a European level.

## Acknowledgments

The author expresses sincere gratitude to the entire iPOPY researchers' team for valuable feedback and comments on the issues raised in this paper, especially Minna Mikkola and Roberto Spigarolo. All team members are listed on the iPOPY website [http://www.ipopy.coreportal.org/?page\\_id=10](http://www.ipopy.coreportal.org/?page_id=10).

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## **Is there any certification of Public Organic Procurement in iPOP countries (IT, FI, DK,DE)?**

Modena, 19.06.2008, Carola Strassner, University of Applied Sciences Muenster, Germany

## **Legal Framework**

- European Union
- Council Regulation (EEC) 2092/91 &...
- Certification usually conducted by private certification bodies
- Usually national approval and/or national accreditation of certification bodies (EN 45011 / ISO 65)



- Consumer protection
- Equal market opportunities
- Transparency

State:

Federal Ministry of Nutrition, Agriculture and Consumer Protection

Federal Agency for Agriculture and Food

16 supervisory authorities in the Länder

23 accredited inspection bodies

State label: "Biosiegel"



Private labels:





## Italy



State: Standing Committee on Organic Farming (SCOF)

Ministry of Agriculture (Ministero delle Politiche Agricole Alimentari e Forestali – MiPAAF) & regional administrations

Organic Agriculture Office (Ufficio Agricoltura Biologica) within the Administrative Office for the Quality of Agricultural Products and Consumer Safety

16 officially recognised inspection agencies & in German-speaking South Tyrol 4 German bodies

State label: -

Private label:



## Finland



State:

Finnish Ministry of Agriculture and Forestry

Finnish Food Safety Authority  Evira

State label



Private:

Luomuliitto ry (Fi. Assoc. for Organic Farming) 

Finnish Biodynamic Association 



## Denmark



State:

Danish Ministry of Food, Agriculture and Fisheries

Danish Directorate  
for Food, Fisheries  
and Agro-Business

Danish Plant  
Directorate

Danish Veterinary  
and Food  
Administration

State label: 

Private label:

Biodynamic & Demeter Associations



## Norway



Not a member of the EU ☹ But EEA member ☺

State:

The Ministry of Agriculture

The Norwegian Food Safety Authority

The Norwegian Agricultural Inspection Service

Inspection & certification: Debio



State label: "private/state"

Private label: -



## Easy Steps To Organic Certification

A manual for canteens, restaurants  
and foodservice operators

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Germany  
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**DE: yes, but ...**

**NO, IT, FI, DK: no, but ...**

## **Survey about the opinions of organic producers and caterers on the main constraints in Public organic food procurement for school catering in Italy**

*Stefano Bocchi \*, Roberto Spigarolo \*, Valerio Sarti \* and Agnese Franceschi §*

*\* DiProVe (Department of Food Crops) – University of Milan*

*§ ProBER (Association of Organic and Biodynamic Producers of Emilia-Romagna)*

### **Abstract**

*The aim of iPOPY (innovative Public Organic Food Procurement for Youth) is to study how increasing consumption of organic food can be achieved implementing relevant strategies and instruments linked to food serving outlets for young people in some European countries. The supply chain management, the procedures for certification of serving outlets, the stakeholders' perceptions and participation as well as the potential of organic food in relation to health and obesity risks will be analysed.*

*This iPOPY project is made up of 5 different Work Packages (WP): Project management, Conclusions and knowledge diffusion (WP1), Policy analysis (WP2), Supply chain management and certification (WP3), Consumer perceptions, practices and learning (WP4) and Nutrition and health (WP5).*

*WP3 analyses the relative success and failure of various relevant supply chains in Denmark, in Finland, in Italy and in Norway, and reveals the critical constraints for their efficiency. The key criteria for appointing a supplier are identified. WP3 studies the impact of such criteria on the development of relationships between supply chain components.*

*This specific survey, made by WP3, is based on several and efficient methods in order to collect a large amount of opinions and datas about the main constraints related to the supply of organic foods in school canteens in Italy. The source of these informations has been a large number of operators (producers of organic foods and caterers of food service for children).*

*This information has been got by a large number of operators (producers of organic foods and caterers of food service for children).*

## Introduction

The organic food industry is emerging, and hence public organic procurement is confronted with organisational and informational problems, lack of experience and also lack of motivation among stakeholders. Many problems will be overcome when public organic procurement will get more common and supply chain management will adapt to this. However, the early introduction of organic food in any serving outlet will need specific support (financial, qualification of key actors). Understanding and acceptance of the organic food concept among the catering staff is crucial for the degree of success in each case of public organic procurement.

Specific requirements for organic products in public procurement supply chains will facilitate an efficient supply of organic food.

Common elements, relevant for the certification of public procurement kitchens/catering units serving organic food, may be identified on a European level.

One of the starting points to face the challenges over described, is to analyse the reasons and the kind of the main constraints, associated to the implementation of organic foods into the lunch of youth in the school, in order to evaluate and find out efficient ways to develop the implementation of public organic procurement for youth.

We have elaborated and planned for this reason a survey concerning the Italian school food service system, whose objectives are:

- To collect the opinions from various experts (producers and caterers) of the constraints to the introduction of the organic products
- To investigate thoroughly the associated dynamics of such constraints
- To give a clear indication about the actual spread of the organic foods
- To carry out a comparison between the spread of organic products and the spread of the other quality products (typical foods, local foods and so on)
- To carry out a more suitable standard for certifying the food canteens with organic vocation.

## Material and Methods

This survey has been realized through two different steps.

### STEP 1

Two types of questionnaires have been studied, developed and written for a qualified group of experts. The first type of questionnaire was subjected to producers of organic foods, and the second to caterers (managers of national and international companies of food service for school, local administrators who has to manage food service for the schools and so on).

The aims of the questionnaires were:

- to collect opinions, in a very simple and efficient way, about the main constraints in public organic food procurement for school catering
- to identify what are the sources of these constraints (economic, logistic, quality requirements not sustainable) through a schematic method of collecting data
- to survey how much organic products are present in the menu of food catering in the schools
- to know quickly what types of certification the companies owns
- to collect opinions about the development of policies regarding public organic procurement and the relative certification plans

Before the distribution of the questionnaires to answers “closed”, they have been subordinated to a test of appraisal turned to a narrow number of authoritative interlocutors of communication.

Their opinions, with respect to the contents of the questions, have constituted the base for the review of the questionnaires. After opportune modifications, the questionnaires have been formulated in their definitive version and later given to the selected experts.

The number of the experts subjected to the questionnaires was of 50 persons for the producers and 50 for the caterers.

The elaboration of the informations, collected in the questionnaires, was made with a statistic analysis that aimed to obtain significant data on the field, object of the study. In particular, the results of the questionnaires, filled by the producers, were matched with the other ones filled by the caterers, so we got a clear situation of the conflicts and of the concurrences between the two points of view.

## STEP 2

The report on questionnaires was the basis to plan the deep interviews with few decision makers, representative of both the points of view. The main aim of the interviews with the decision makers was to ask them how the problems could be solved, using the method of SWOT analysis.

For this aim, it has been put to point a document containing specific questions for the deep interviews in order:

1. To estimate more deeply some aspects considered significant for the scope of the project
2. To emphasize some dynamics considered not clear enough after step 1 of the project
3. To stimulate some reflections on some aspects not considered from WP 3 till that moment
4. To collect some suggestions from experts in order to find out the best solutions to the problems analyzed

The most important results of the questionnaires are shown in the first two pwp presentation.

The comparative presentation show a comparison between the opinions of producers and caterers and the results of the SWOT analysis carried out in the deep interviews.

## **Conclusions**

The main information carried out from the survey are shown below.

- The main constraints for the implementation of organic products in Public procurement for the school seems to be those of economic and logistic nature, while only the group of the caterers perceives as an important problem also the distribution aspects.
- The majority of the producers (beyond 70%) thinks that the Municipalities and the catering companies do not correspond a fair price for the purchase of the organic products.
- Producers estimate that the plus cost of organic foods, compared to the conventional ones, is placed in average in a range comprised between the 20 and 30%, while for the caterers the same range is in average of 30-40%.
- Only the caterers denounce that organic foods (especially compared to fruits and vegetables) are not available in some seasons.
- To the question: "if the organic products should be certified, which it would be, to your opinion, the better way?" the producers have answered mostly "to certify the catering" and "to certify the ingredients", while for the caterers the main indication has been "to certify the meal" and "to certify the ingredients".

The results of the SWOT analysis carried out in the deep interviews are resumed in this slide:

# SWOT analysis

## S (Strenghts)

- More attention to local productions
- Improve environmental awareness
- More safety
- Relationship with health and well-being

## W (Weaknesses)

- Lack of organization of supply chains
- Lack of knowledge on organic food chains
- Problems related to availability
- High prices
- Lack of uniformity in the products supply

## O (Opportunities)

- Regional laws
- Growth of interest towards healthy and environmental issues in people
- Contributions to change dietary behaviours

## T (Threats)

- Lack of availability of public funds
- Lack of controls on the application of the contracts
- Reduction of family incomes

The points of the SWOT analysis are coming from the deep interviews carried out with the decision makers  
opinions of the producers (in red) – opinions of the caterers (in blue) – shared opinions (in green)



# IFOAM Congress Modena 2008

## Workshop on Public Catering

Results of the survey on the opinions  
of the producers about POP  
(Public Organic Procurement)

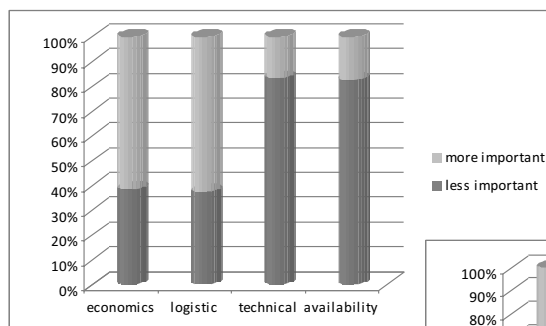
Data comparison (producers vs caterers)

by Stefano Bocchi and Roberto Spigarolo

DiProVe – University of Milan

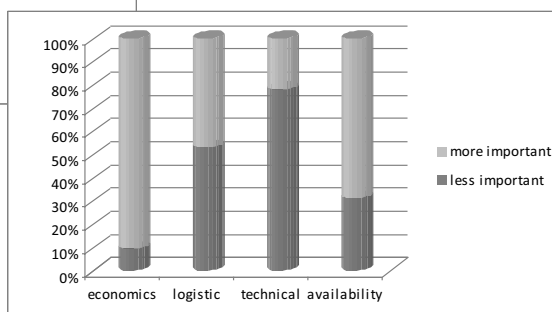


### What are the main constraints for the implementation of organic food in POP?

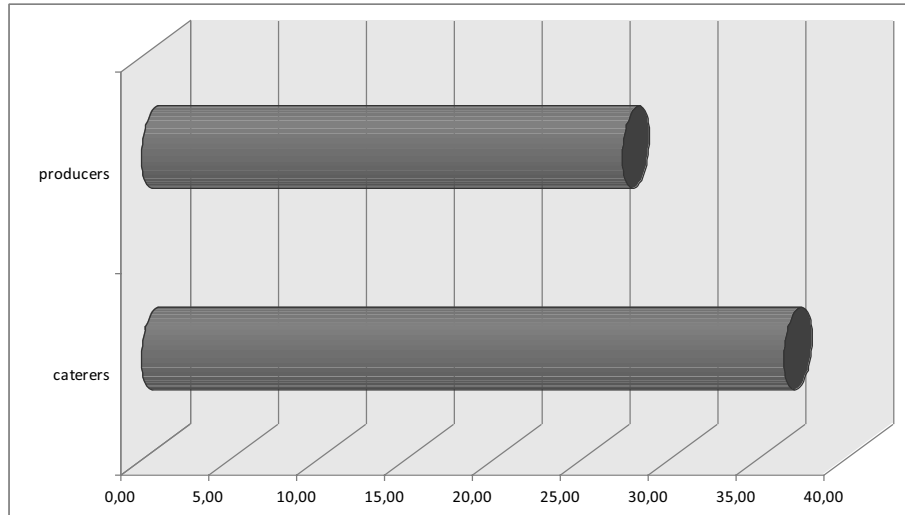


← Producers

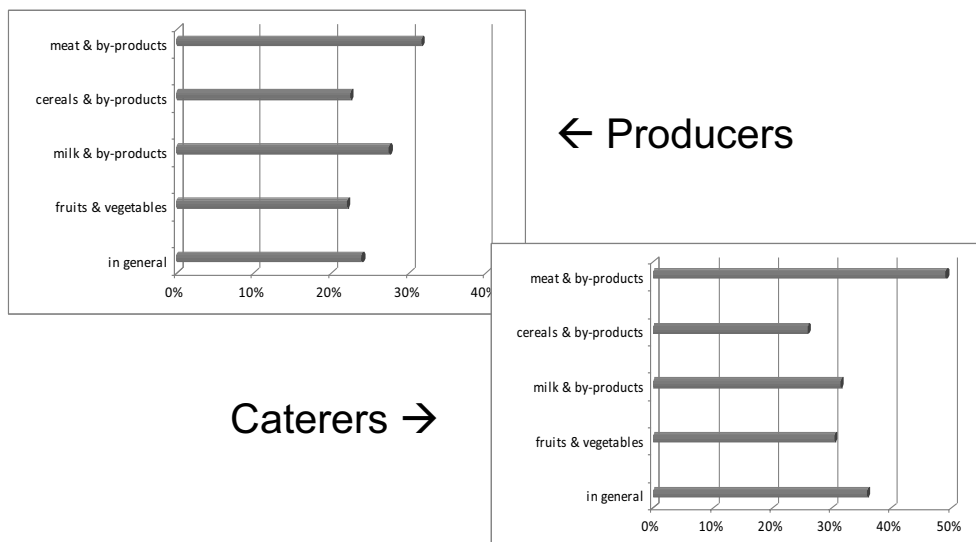
Caterers →



## How much is the cost of food raw materials (% of total meal cost)?



## How much is the plus production food cost of organic products (in relation to conventional foods)?



← Producers

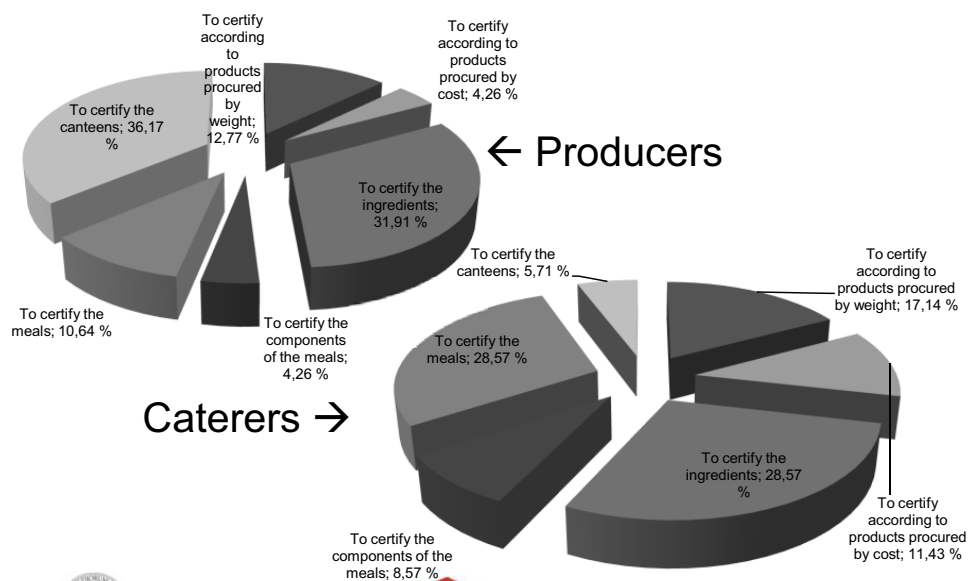
Caterers →



## What types of organic products are not available (when)?



## If you will get an organic certification for your catering company, do you think that the best way is:



## SWOT analysis 1: Strengths

### S (Strenghts)

PRO	More attention to local productions
SHA	Improve environmental awareness
SHA	More safety
CAT	Relationship with health and well-being

The points of the SWOT analysis are coming from the deep interviews carried out with the decision makers  
opinions of the producers (PRO) – opinions of the caterers (CAT) – shared opinions (SHA)

## SWOT analysis 2: Weaknesses

### W (Weaknesses)

PRO	Lack of organization of supply chains
SHA	Lack of knowledge on organic food chains
CAT	Problems related to availability
CAT	High prices
CAT	Lack of uniformity in the products supply

The points of the SWOT analysis are coming from the deep interviews carried out with the decision makers  
opinions of the producers (PRO) – opinions of the caterers (CAT) – shared opinions (SHA)

## SWOT analysis 3: Opportunities

### O (Opportunities)

PRO	Regional laws
CAT	Growth of interest towards healthy and environmental issues in people
CAT	Contributions to change dietary behaviours

The points of the SWOT analysis are coming from the deep interviews carried out with the decision makers  
opinions of the producers (PRO) – opinions of the caterers (CAT) – shared opinions (SHA)

## SWOT analysis 4: Threats

### T (Threats)

PRO	Lack of availability of public funds
PRO	Lack of controls on the application of the contracts
CAT	Reduction of family incomes

The points of the SWOT analysis are coming from the deep interviews carried out with the decision makers  
opinions of the producers (PRO) – opinions of the caterers (CAT) – shared opinions (SHA)



# Workshop session 3

Food for school -  
food for the minds





## Environmental Tasting, a short food supply-chain project

### Giacomo Sala, BioPiac Consortium

In the canteen of Florence University, since few months, the students have the opportunity to taste Maremma: some days a week, the lunch and dinner menu includes meals prepared with organic farming foods produced by the Alberese Regional Farm.

Alberese Farm is owned by Tuscany Region and represents one of the largest farm within a protected natural area. With an area of 4600 ha, Alberese represents the 40% of Maremma Natural Park. Mediterranean forest and macchia, sand dunes, pasture, arable lands, olives and vineyards design the landscape and the environment where Alberese carried out its activities: the organic farming. Cattle and horses are bred to the wild state and are still managed by horse riding herdsman, the “buttero”.

The Environmental Tasting Project consists of the supply of organic food by the Alberese Farm to the Catering Service of Florence University, but is not only this; in fact the overall objective of the project is to promote a sustainable way to make agriculture, by the means of communication and training events. The experience of Alberese can be considered a complete application of the principle of sustainability, where the environmental and socio-economic objectives are fulfilled.

The Maremmana breed represents the symbol of this approach to the sustainable agriculture and to the agricultural biodiversity conservation; “Maremmana” is an ancient bovine breed, that is protected by Slow Food.

The experience of the cooperation between Alberese Farm and the University Canteens is realized in the spirit of the Regional Law n. 18/2002, aimed to the promotion of organic, traditional and solid food products, but it is also a response to the always more urgent need to realize a short food chain supply.



**“Consorzio BioPiac”**  
**An experience of territorial  
organisation of local and  
organic productions**

*By Giacomo Sala*  
*President of Consorzio BioPiac*



**Consorzio BioPiac was  
established in 2002 thanks  
to the willing of Coldiretti  
and of the farmers**



➤ **To organize and to certify the food-chains**

- slaughterhouse
- dissection
- butcher's shop
- cheese factory for the production of grana padano made with milk coming from the mountain cattle-farmings
- small cheese factories that makes fresh cheeses
- bakeries
- laboratory for the production of pastries and sweets
- equipment for the production of tomato sauce

➤ **To establish a marketing and administrative structure**

➤ **A simple and light organisation**

- that share spaces and services already existing in other organisations



## **School canteens supply**

2004 - the Municipality of Piacenza made an explicit request for local organic products

- the service was carried out with the collaboration of Cir and of the Provincial Administration

2005 - the Municipalities of the Province of Piacenza made a request for local organic products

- the request was satisfied by means of the collaboration of COPRA and the Provincial Administration



## **Organic and local products supplied to the school canteens**

- Milk and dairy products (mozzarella, caciotta, ricotta, crescenza, grana padano...)
- Meat
- Fruit and vegetables
- Preserves and jams
- Flour, bread, cookies, pasta
- Eggs

**Catering Cooking Center  
La Verza of Piacenza**



## **• SCHOOL CANTEENS USING PRODUCTS PREPARED BY BIOPIACE**

THE MUNICIPALITY OF PIACENZA

22 MUNICIPALITIES IN PIACENZA PROVINCE

### Threats:

- adjustment to the school catering standards (size, packaging and health standards)
- logistics

### Threat solving:

- technical/marketing assistance
- shared logistic organisation



## **The choice of the local organic product**

- for a sustainable development of the territory
- to bind the menus to traditions and to season
- to reduce the transportation of goods
- to respect the environment
- to assure safety and genuineness



## **SUCCESS of CONSORZIO BIOPIACE**

- a short and certified food-chain
- a wide range of products
- high quality standards
- guaranteed supplies
- respect of the requirements of the tender specifications
- shared logistic organisation among the partners in the deliveries
- minimum financial investment
- maximum outsourcing of services
- working flexibility
- direct relationship with the consumer
- creation of a system of high economic efficiency and of very low environmental impact

# The school canteens in Rome

By Silvana Sari

The existing catering system in Rome has needed a strong investment in different fields, as:

- politics
- economics
- organization and managing

with the aim to ensure to all children and kids a good, safe and suitable food, putting into practice a pattern of sustainable production and consumption, promoting the social solidarity, the integration and the acceptance of different cultures.

The Municipality of Rome was (and is still) aware of the tremendous environmental damages, of the speed the pollution is becoming higher and of the threat to our ecosystem and to our economy. It is convinced that the food is an important part of the problem and that economics, environment, welfare and social inclusion are strictly interconnected.

We provide every day 150.000 breakfasts, 150.000 meals and 150.000 snacks, corresponding to about 27 millions breakfasts, meals and snacks every year and to about 700 millions euro in 5 years.

The catering service is provided in 740 schools, most of them have their own kitchen. Only 8% of the meals is transported.

The Municipality of Rome, thanks also to the allied activities, is among the first 10 realities in the national food sector

## **A shared method**

Context analysis and consultation with all the stakeholders of the food chain: from the farmers to the processing and transport companies and to the representatives of workers and of the parents

## **A gradual impact**

We started 8 years ago with a quite good quality level of the meals and then we have gradually and constantly achieved continual improvements. Today everything is organic, except meat and fish.

## **Try and strengthen**

Every year an improvement was added.

## **Boosting choice even with a marketing risk**

offered voluntarily by the market on its own risk and cost

## **Tool used to reach the goal: “A model of sustainable production and consumption”**

## **Introduction of Organic Products**

## **Environmental protection**

The products of agriculture and livestock are managed in a correct and eco-sustainable way.

### **Promotion of the food-chain “devoted to organic foods”**

Since 2004 all the stages of the food-chain shall be carried out by exclusively organic producers. The food-chain “devoted to organic foods” has been introduced for: vegetables, fruit, bread, oil.

The choice of the food-chain “devoted to organic foods” allowed us to reach 2 aims:

1 - The food-chain “devoted to organic foods” has become an opportunity of growth for small and medium farms/companies that represent a cultural and environmental resource and that are often disadvantaged in comparison with the big agro-food companies that works in the conventional and in the organic sector.

2 – Better guarantees about the absence of secondary pollution agents coming from a contamination between organic and conventional farm systems, in comparison with the companies that work both with organic and with conventional products.

### **Introduction of the organic products belonging to the fair-trade chain.**

Today fair-trade products have become compulsory. We buy bananas, biscuits, chocolate for an amount of **6 million Euros for year**.

**Local economy - solidarity – native and organic farmers – paid to the right salary and oriented to the environment protection.**

### **Other strategies introduced in the way of sustainable development**

- 1) **Exclusion of the plastic pottery from canteens.** In all the schools the introduction of ceramic plates, stainless cutlery and glasses is compulsory, as well as the use of environmentally compatible detergents.
- 2) **Restoration of kitchens and schools with environmentally compatible materials.**
- 3) **Separate collection of waste products.**
- 4) **No GMO in foodstuffs and in feeddstuffs**
- 5) **Use of beef DOP/IGP.** All the animals belong to ancient cattle breeds with a slow increase (Chianina, Romagnola and Marchigiana), that guarantee an elevated nutritive value. In order to avoid problems to the breeders, it has been guaranteed the purchase of nearly all the parts of the animal. The age of the animals for slaughter are comprised between 18 and 24 months (young and not doped sucking calf).
- 6) **Promotion of the fruit consumption and fresh and raw vegetables.** Menu of 9 weeks. Fruit and vegetables: different and seasonal varieties. Meat 4 days from the slaughter, oil of the year and fresh bread every day.
- 7) **Promotion of the local production and of the re-location of the agriculture** avoiding the **monocultural and intensive** systems and an economy that divides the areas of the world and creates zones where people, especially the poor one, have least possibilities to consume fresh, nutrient and healthy foods.

Since 2007 all the fruits and vegetables particularly perishable, must **“freshness guaranteed”**. We mean that this products for which the period that elapses between the collection and the consumption **is less than three days**.

Moreover, it is considered the distance, in km, from the place of production and collection to the place of consumption for each kind of products. It has been applied **food–miles criterion**, through which the companies that offer a lower number of kilometers of distance **“from the collection to the consumption”**, **have been rewarded**.

This criterion guarantees the freshness of food, represents a concrete example as the importance of the role that the institutions can have in promoting low-polluting supplying systems; currently the fuel used for the process of transport of foodstuffs is one of the causes of pollution and of the increase of the total heating.

Today there is a conceptual confusion on organic foods; the industrialization of this sector increases too much and some companies have begun to work on really great mass: Whole Foods (United States).

The original philosophy of organic risks to be disregarded if extended organic monocultivations begin to be practiced, if the rules begin to let “intensive” breedings, if the distributive system is still unsustainable, polluting and energetically expensive.

In order to guarantee the respect of the principles of organic agriculture, this consumption must not be separated from the local dimension.

For “local system”, I mean a system in which agriculture is tied to climatic, agronomic, morphological, environmental specificities of the ecosystem “territory” with its land but also with its people, faunas, vegetation and culture.

Only the binomial Local – Organic can guarantee really sustainable practices, respectful of the biodiversity, that can be improved till it will become quite more productive of the monocultural systems and of the industrial practices.

The local system concurs to lead to an agriculture in tune with Nature in order to save, through traditional agriculture, nearly 31 million hectares of agricultural land from loss of fertility, and from erosion. Moreover, it allows a sustainable distribution of the food, the return of the peasants to the land and a new development for territories that improve the food security.

The organic-local system allows to abandon an economy slave to oil and to fuels and to promote an economy able to use only solar energy and natural fertilizers.

The local dimension could allow the organic agriculture to exceed dynamics of higher costs regarding the conventional products. The short chains and the local markets will be able, in a more suitable way, to increase the consumption of organic and sustainable products, and to make them accessible for everybody. The organic products will become less elitist, less expensive, more concrete and diffused, truly sustainable and respectful of the local diversities, if its original philosophy will be applied,.

**Remarkable investments in the food education and in the analysis of the Customer Satisfaction, through a study of the waste.**



## **INSTRUMENTS USED FOR THE ATTAINMENT OF THE GOAL: "ELEVATION OF THE QUALITY OF MENUS"**

**1) Introduction of a snack at 10.30 in the morning** with various types of foods: bananas, sandwich with chocolate, biscuits and, two times in a week sandwich with deli meats. This choice will foster correct feeding and **is an important element prevent children's obesity. Generally the children are inclined to consume, in the morning, a prepacked snack, that is too much caloric.**

**2) Articulation of the menu on 9 weeks** in order to guarantee a greater variety of the plates proposed. A menu based on a long cycle **promotes the employment of fresh foods.** There have been elaborated approximately 160 different recipes.

**3) Differentiation of the menu** in three different classes of age (nursery school, primary and lower secondary school).

The **Municipality of Rome** has invested 700 million euro in order to finance the service of school catering from 2007 to 2012.

### **The quality has a price.**

The roman families pay less of the half of the total average cost of the meal. Moreover, the contributions are reduced of 25% for the families with low incomes. The poor families receive the service free of charge.

## **PRINCIPLES:**

### **STATEMENT OF THE ROLE OF POLICIES OF THE PUBLIC ADMINISTRATION**

Guarantee a public space in which different interests can coexist, under common rules, shared and defined from the public body.

So, the market cannot dictate the rules of the game, but is the market that must be adapted to our guidelines, to our principles rooted in the needs of people. (es. America)

The public Administration adopts the strategic choices and decides what types interests must be defended and supports them with coherent and completed actions:

- it writes the rules
- it governs the application

### **THEREFORE**

- a public role thought out, but also acted
- client role submitted to control-verification

## **MONITORING PENALTIES FOR DEFAULTS**

In order to carry out with competence and adequacy the role of the Municipality is necessary to build up a tightening control system, verifications, monitoring and penalties for defaults.

The political power must be used to serve the community in order to achieve the well-being that in a certain moment is feasible.

**Investments in the actual and future health can lead to avoid future social and sanitary expenses.**

**Daily cost of a lunch euro 5,00**

**Daily stay in a public hospital 500/700 euro = 100/140 lunch**

### **INVESTMENT IN HAPPINESS AND NOT ON THE FUTURE DISEASE**

In the United States, the costs for the public health associated to the malnutrition have caught up approximately 7 billions of euro per year.

**Meal cost \$ 1 for the diabetes**

In the United Kingdom, approximately 14 billions of euro they are expended every year in order to take care of the consequences of the obesity and the excessive weight.

**Meal cost 0,95 cent**

Savater → **the POLICY It does must not guarantee public happiness, but at least avoid the unhappiness**

In Italy nearly an adult on two is overweight (the phenomenon regards 45% of the adult population). But now the problem always regards also some children.

According to the data elaborated from the International of Obesity Task Force in Italy 31-32% of the children between 7 and 11 years suffers from problems of overweight and 11% of obesity (Campania 57.3% - Trentino 33.7%).

### **FOOD LIKE CULTURAL VALUE TO CREATE AN AWARE ADULT AND A RESPONSIBLE CONSUMER**

Galbraith → **All the democracies must be afraid of the ignorance**

Our task is to promote the formation of a social demand and allow everyone to express it in aware way.

**Good relationship between democracy and culture**

### **ALLOW PEOPLE TO KNOW**

what is quality

the nutritional and caloric equilibriums

the impact of the consumption on health but also on the environment

**CHOICE: healthy & good food**

Eat chips and drink coke is really a choice?

To know how and what we eat at school is a social action through which we can give to the children of different social and economic condition and of various cultural origin an important chance in order to interact and to all the benefits of a healthy and aware consumption.

What we eat at school is moreover an economic action, that can promote new markets for the producers of quality foodstuffs who up to now have been neglected by the globalization forces.

Moreover, what we eat at school is an environmental action that can support the productive systems that capitalize on the ecological resources and on the re-localization of agriculture; these actions have many benefits in terms of reduction of the levels of pollution and face the change of climate.

**What we eat at school is a public health service and fosters the democracy; it is an opportunity in order to develop our collective engagement towards a sustainable future of economic development, environmental conservation, democracy and social justice.**

**Canteens as an opportunity to socialize and to create solidarity.**

**Canteens as an opportunity to open important markets** for producers of quality foodstuffs in fight against the forces of the economic globalization.

**Canteens as an opportunity to increase the respect of the environment and of the cultural diversity.**

**Canteens as an opportunity to foster public health.**

**WE DID NOT RECEIVE OUR WORLD IN HERITAGE FROM OUR FATHERS, BUT WE HAVE TAKEN IT ON LOAN FROM OUR SONS**



# **JUANKOSKI**

## **case study in Finland**

**IFOAM**

**Modena, Italy**

**19.6.2008**

**Ecolecturer Irma Kärkkäinen**

**Local and organic food adviser Kirsi Malaska**

**EkoCentria**

**Finland**

**[www.ekocentria.fi](http://www.ekocentria.fi)**

**+358 44 785 4012**



## **EkoCentria, Finland**

**National stimulator of sustainability in public catering and promoter of local and organic food consumption in HoReCa**

- **Founded:** in 1999 (Finnish Organic Catering Centre)
- **Vision:** Catering units serve fresh local and organic products daily
- **Functions:** Marketing communication, research
- **Financed:** Ministry of Agriculture and Forestry  
Ministry of Environment

**[www.ekocentria.fi](http://www.ekocentria.fi)**



## Public catering in Finland, year 2007

- 9215 kitchen units
  - Out of this 5002 production units
  - 4213 heating units
  - 7297 run by municipalities
- Number of portions served 431 m
  - **Municipal catering produced 332 m meals**
- 70% of municipalities committed in centralised purchasing

(N = 366 ; total 416 in Finland; reference: EkoCentria 2008 will be published 9/08)



## School meal system in Finland

- Lunch free of charge daily to school children at the comprehensive and vocational college
  - every child eats free out of home daily
- **New** national nutritional recommendations for different need groups
  - Day care
  - Schools
  - Hospitals
  - Elderly homes
  - Army kitchens
- Professional and educated staff managing and cooking





## City of Juankoski

- 5470 inhabitants
- Main industries metal, agriculture



- Centralized cooking
- 1550 portions daily
  - 6 service units
- Total value 4.4 million €
  - 4.6% organic





## Organic products since 1998

The first municipality to join the Step by Step –program with all kitchen units

- Crispy rye bread, fresh bread and bakery products
- Fresh grated carrot
- Carrots, onion, vegetables, berries
- Milk, sour milk
- Barley flour, Quinoa
- Turnip rape oil, cold pressed
- Apples, Fair trade bananas



- Filled organic sandwiches served in the afternoon at schools
  - Cost of the snack 1€ / portion



## How it was done

- Appreciated service manager, Mr Jari Korhonen was hired 1998
  - President of the Finnish Hospital Dietetic Association



- *Food is part of the "wellness strategy" of the city of Juankoski*

- *Vision of public catering*

*"Better tasting, more fresh and healthier food in schools and hospitals"*





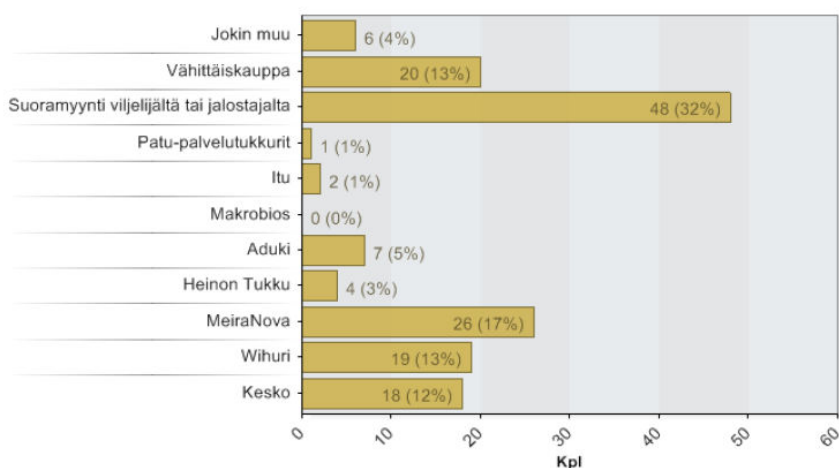
## How it was done

- **Food procurement policy**
- **R&D –projects with local organic farmers**
- **Innovative public procurement**
  - **Eg. Bananas**
    - **organic + fair are smaller vs. conventional**
      - » **Same price / customer**
- **Purchasing preferences**
  - **Quality**
  - **Taste**



## Main channel when purchasing organic products

Ensisijainen hankintakanavanne luomutuotteille on:



reference: EkoCentria 2008; published september/08)







# Benefits

## Economical

- Less waste( raw materials + plates)
- marketing value
- 3500 € investment on organic products
  - Lots of positive image to the city

## • Nutritional

- Fresh berries and berry juice
  - Less urinary track problems in elderly customers
- Less losses in the amount of Ca, Mg, K compared to industrial grated and "double washed" carrot salad
- Better appetite in elderly customers > better food intake

## • Quality

- Better raw materials

## • Social

- Improved community relations

## **'Ways to increase the amount of healthy, tasty and organic food in Danish School Meals'**

Illustrated by specific cases from the project 'Organic Food in School Meals - information and inspiration' 2008.  
By Dorte Ruge, Communications Consultant, Organic Denmark, dr@okologi.dk

The purpose of the project 'Organic Food in School Meals - information and inspiration' is to inform and inspire the public on how to use organic food in meals for school children.

The need for such a project is due to the fact that implementation of organic food in school meals in Denmark is an exception – unless you are situated in the municipalities of Copenhagen, Roskilde or Gladsaxe (cf. Bioforsk Report, Vol.3 No 40 2008). On the homepage [www.okologi.dk/skolemad](http://www.okologi.dk/skolemad) five ways to increase the amount of organic food in a school meal is described. With reference to these models, two cases will be presented, focusing on different aspects of the rather complex process of implementing organic food in school meal systems in Denmark:

Aspect 1. The canteen leader: Competent, committed – support is essential.

Aspect 2. Involvement of school children in the process towards a more organic and healthy menu – why and how?

Reference to the educational farmproject : Organic Schoolfarms [www.okologi.dk/skolegaard](http://www.okologi.dk/skolegaard)  
and the teaching material 'What is Organic?' [www.okologi.dk/undervisning](http://www.okologi.dk/undervisning)

The project is financed by The Ministry of Food, Agriculture and Fisheries [www.fvm.dk](http://www.fvm.dk) and is conducted by Organic Denmark, the Danish non-profit member association for organic farmers, manufacturers and consumers [www.organicdenmark.com](http://www.organicdenmark.com)

The project 'Organic Food in School Meals' has been running for a year by now. It is conducted by 'Organic Denmark' which is a non-profit organisation for farmers, companies and consumers. The project is financed by the Danish Ministry of Food, Farming and Fishery.

Since the release of the homepage [www.okologi.dk/skolemad](http://www.okologi.dk/skolemad) in January 2008 the site has been shown 11.500 times by people who are interested in more information and inspiration on how to get more organic food into schoolmeals. It is quite good for a website like this in Denmark.

The slogan of the campaign claims 'It is as easy as ABC' to improve the amount of organic food in a school meal. This might seem a bold assertion considering the fact, that unless You are a student in the municipalities of Copenhagen, Roskilde or Gladsaxe, organic food in school meals is an exception in Denmark (cf. IPOPY presentations).

Packed lunch from home is still common practice. And while waiting for political initiatives, providing the best solution, parents have a good opportunity to make children's packed lunch more healthy and more organic, because: 'A little more organic is much better for the kids'.

Anyway, the results of the project certifies, that the best solution beyond doubt is, an organic, healthy whole meal produced in the kitchen of the school, served in a nice restaurant for students and teachers by a competent, committed and very well supported 'chef'. This leaves us with two major areas of action:

- Public programme for 'The Danish Organic Schoolrestaurants'
  - investments in facilities (kitchens, canteens, technologi)in most schools in DK.
- involving students in decision making and cooking
  - educating of canteen leaders and assistants.
  - financing
- Public programme for implementation – municipalities
  - local organic food ?
  - involving parents ?
  - education in organic food, farming and sustainability

Dorte Ruge, project manager, [dr@okologi.dk](mailto:dr@okologi.dk), M 23362163 [www.dorteruge.dk](http://www.dorteruge.dk)



**'Ways to increase the amount of healthy, tasty and organic food  
in Danish school meals'**

Organic Food in School Meals , A project financed by

The Danish Ministry of Food, Farming and Fishery .

By Dorte Ruge, advisor and project manager, Organic Denmark [dr@okologi.dk](mailto:dr@okologi.dk) [www.okologi.dk](http://www.okologi.dk)



MERE ØKOLOGI



[www.okologi.dk/skolemad](http://www.okologi.dk/skolemad)



### The educational perspective...

Organic Denmark has developed the educational material:  
What's organic ?

[www.okologi.dk/undervisning](http://www.okologi.dk/undervisning)

It's for primary and secondary school. Internet based, flexible elements and free to use.

There are 32 Organic Schoolfarms in DK.

-Different kinds but cooperating within education  
and PR

The project is financed by the Danish Ministry  
of Food, Farming and Fishery

ØKOLOGISK



### Which model or type in DK?

1. Packed lunch from home – more organic is easy
2. Packed lunch from external cater – hard to get healthy, tasty AND organic
3. Large portions from external cater – hard to get organic all over DK, but...
4. A whole meal produced in school kitchen, served in cantina for kids and adults

MERE ØKOLOGI



**the best!**



# ORGANIC Copenhagen

## Organic Food in Copenhagen IFOAM world Congress, Modena, June 2008

by  
Lene Bjerg Kristensen,  
Technical and Environment Administration,  
City of Copenhagen



# ECO-METROPOLE

Copenhagen City Council

- 90 % organic food in municipal kitchens by 2015



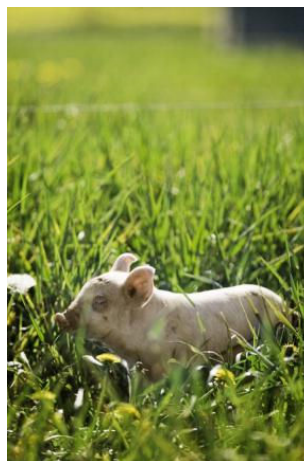
## MYTHS ON ORGANIC

- The children don't like it ... or who don't?
- We can't afford it ...
- We can't get the produce we need ...
- It takes too much time ...



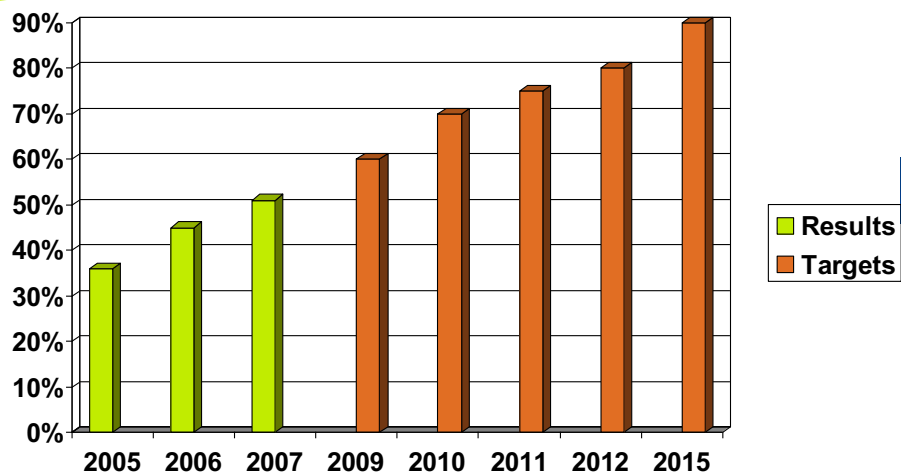
## WHY ORGANIC?

- Protects drinking water reserves
- Biodiversity
- Health
- Animal welfare





## RESULTS & GOALS

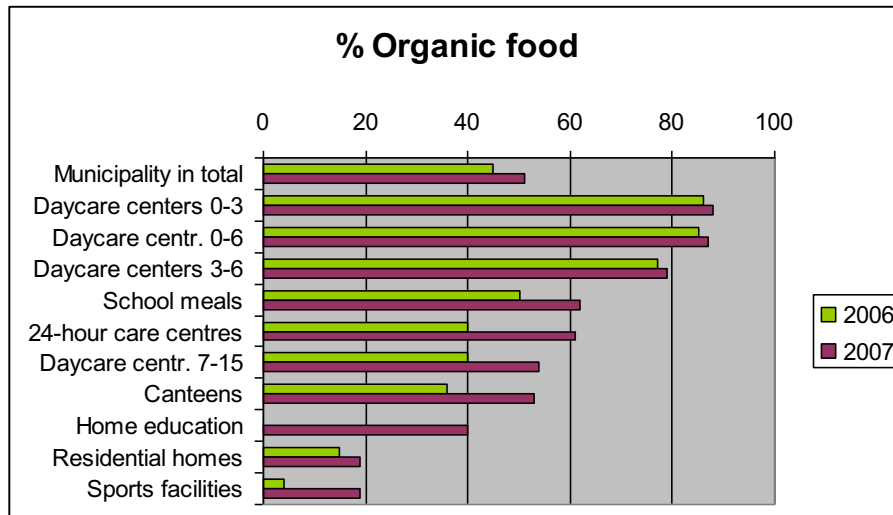


## ECONOMY

- 1100 municipal kitchens in the City of Copenhagen
- Food budget 200 mill. DKK (approx. 27 mill. €) per year in the City of Copenhagen
- Project budget 2001-2009 40 mill. DKK (5,5 mill €) in total over the years



## ORGANIC FOOD %



## IT IS POSSIBLE !

- More than 75 % organic food:
  - 380 day care institutions and
  - 34 24-hour care institutions
- More than 90 % organic food:
  - 250 day care institutions and
  - 9 24-hour care institutions



## HOW IS IT DONE?

- More vegetables and more bread
- More basic foods such as oats, rice, pasta, beans and lentils
- Seasonal fruits and vegetables
- Less meat and alternative cutouts
- Less sweets



## THIS MEANS

- New recipes with more vegetables and basic foods
- Revised menu plan
- More flavour and bite
- Reduce food waste
- Manage economy carefully
- Procurement contracts



## Organic Foods for Social Consumption in Andalusia

García Trujillo, R<sup>1,2</sup>; González de Molina, M.<sup>1,2</sup>; Ávila Cano, E.<sup>1</sup>; Tobar, E.<sup>1</sup>; Alonso, A.<sup>2</sup>; Gómez, F.<sup>1</sup>

Key words: Organic foods, social consumption, rural development

### SUMMARY

Andalusia Government develops a program to serve organic food to primary school, nurseries and older people residence since 2005 year. The program objectives are to improve the quality of foods in the social consumption, rural development and feeding and environmental education. The program favouring the concentration of the offer and accelerating the creation of nearer sale points to the final consumer. With that the program foment a stable market for the groups of local producers. Actually organic food is served in more than hundred centres, with a figure of around 10,000 diners every day. Nine group of producer are involved in the program integrated for 70 direct producers and 300 hectares of irrigated land.

### INTRODUCTION

The organic foods production has been recognized by the international community as systems able to contribute to a sustainable rural development and that it offers a series of benefits to the society, that which has been picked up in the Plan of Action to impel the Ecological Agriculture in Europe for the European Commission in the 2004.

The organic agriculture has experienced a great growth in Andalusia in the last five years, passing from 225.598 ha in 2002 to near 600.000 in 2007 (PAAE, 2007-2013). It generated in the 2005 year production equivalent to 123,1 millions of €. They are several factors that have influenced in this important growth, as the politicians developed for the impulse of the organic agriculture in Andalusia and EU and the development of the market of ecological foods in the countries of the centre and north Europe. However development of internal market of organic food is poor in Andalusia. On the other hand the consumers express that its biggest interest to consume these foods is the improvement in the health that they can provide them, continued in second order from the benefits to the nature (Espinár and García 2004), and recently studies show that 14% of andalusian population are in disposition to by organic foods (Junta Andalucía 2007).

Considering the weaknesses of the development of the internal market of the ecological products so much, as of the benefits that the ecological quality can report the population, it is that the program of ecological foods is promoted for the social consumption from the public sector.

The programme "Organic Foods for Social Consumption in Andalusia" is an initiative of the Directorate-General for Organic Agriculture of the Junta de Andalucía's Regional Ministry of Agriculture and Fisheries which was set in train in September 2005 thanks to a partnership agreement signed between the Junta de Andalucía's Regional Ministries for Agriculture and Fisheries, Education and the Environment, with the Regional Ministry for Equality and Social Welfare later joining in on the project.

This programme pursues several goals which focus on the population of Andalusia benefiting from the quality of organic foods while bringing about sustainable rural development.

### AIMS OF THE PROGRAMME

- HEALTH

By providing high quality foods in balanced and healthy diets the programme seeks to help improve the health of the most vulnerable sectors of the population (such as children, the elderly and the sick), not merely through the benefits of organic nutrition but also the significance attached to acquiring sound eating habits which have a direct effect on people's health.

The programme also seeks to help prevent serious health problems currently affecting the population of Andalusia. An example of this is obesity among children, which brings serious consequences throughout their adult lives favouring other problems or chronic diseases which may appear in the future such as type 2 diabetes, apoplexy, heart conditions and certain forms of cancer etc. (Aranceta et al. 2001; Serra-Majem et al. 2003 and SEEN, 2007)

- EDUCATION

The programme promotes education on food and the environment as well as developing healthy and responsible habits among school-children, their families and the educational community. As for this training activities in centres are provided on the issues of food and the environment with the groups mentioned above. This has involved carrying out workshop activities with children, courses to train up cooks and teaching staff and chats with families, who receive an informative bulletin twice during the academic year.

- RURAL DEVELOPMENT

The programme contributes to rural development, helping small and medium-sized producers to organise themselves so they can supply social consumption centres through shorter marketing circuits and thereby create local groups of producers.

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<sup>1</sup> Dirección General de Agricultura Ecológica, Consejería de Agricultura y Pesca, Junta de Andalucía. Tendillas s/n, Sevilla, Spain

<sup>2</sup> Consorcio "Centro de Investigación y Formación en Agricultura Ecológica y Desarrollo Rural" de Granada, C. Jau, Santa Fe, Granada, Spain

This markedly territorial form of organisation helps open up markets in the production zone, develop the logistics producer groups need to carry out their distribution, foment a direct relationship between producers and consumers and ultimately develop the internal market for organic produce.

One feature of the programme is that it has fostered cooperation among different producer groups, who have found themselves prompted to diversify production so they can cater as much as possible for the demand in the market, managed to bring planning to production, complement each other and agree on sale prices in common.

The programme has also facilitated joint buying of foods where there are shortages in Andalusia (milk, pip- and stone-centred fruits, bananas etc) and has created logistical structures to conserve and distribute these foods.

- **ENVIRONMENT**

Organic production collaborates in conserving natural resources (water, soil, biodiversity) and in reducing the chemical burden on ecosystems. Organic farming techniques also involve practices to enhance the fertility of soil, thereby reducing erosion and raising the level of organic matter. Using associations and crop rotation as well as hedging implies increasing local biodiversity and brings benefits which go beyond strictly farming-related ones, improving the landscape and helping to maintain the wild flora and fauna (Alonso, 2003 and Tauscher et al. 2003). In organic stock-breeding no hormones, antibiotics or genetically modified feed are used.

On all of these aspects scientific opinion supports the contention that organic production systems are good as these help mitigate climate change through cutting down on the use of fossil fuels and fomenting practices which secure CO<sub>2</sub> (organic soil matter, vegetation, tree-planting etc), (Kotschi and Müller-Sáman, 2004).

## **BASES OF THE PROGRAMME**

The programme is based on there being voluntary spirit at centres, organised groups of organic producers who can supply organic foods, these being supplied year-round and at levels of at least 50%, and this produce being offered for sale at prices affordable for the various centres.

The programme started off with four groups of producers, then in the second year these became eight and at the moment ten groups are in operation comprising 70 direct producers and around 20 indirect ones with over 300 hectares of irrigated land.

On the other hand there are the cooperating agro-industries, which are facilitating the supply of meat, oil, tinned foods, bread and other items prepared under the programme. The programme also provides advice for producers and additional controls on pesticide waste to guarantee that this at no time gets into the food.

In 2007 the Red Andaluza de Productores Ecológicos de Andalucía (*Andalusian Network for Organic Producers in Andalusia*, REPA) was legally incorporated, which will from now on improve various aspects of supply and logistics under the programme, and since the 2007/2008 year a Logistical Unit has been available to support the social consumption programme which seeks to manage both joint buying and exchanges among producers, thereby smoothing the flow of products and reducing their associated expenses and complexity.

This organic food programme was conceived to provide one set meal per schoolchild which would be nutritionally balanced and would not cost over € 1,50 a day per child's meal.

According to the studies made of various centres taking part on the programme average availability for food is € 1.57 a day per child's meal.

Preparing diets has been carried out by nutrition specialists, restaurateurs and the collaboration of producers taking into account the nutritional needs of the different age brackets, the parameters to look at for diets to promote health, the needs of diners at different times of the year, the seasonality of fruit and vegetable produce and also the introduction of traditional dishes compatible with health principles.

To obtain a balanced diet account has been taken of 16 nutrients, the maximum proportion of energy, such as fat and proteins in diets, the ratio of animal/vegetable protein and the minimum quantity of fruit and vegetables. Also taking care to see that the final price of the meal is affordable for centres.

## **HOW THE PROGRAMME HAS EVOLVED**

There are four types of public centres on the Programme:

- The CEIP (Primary and Children's Educational Centre)
- The CASE (Nurseries)
- Residences and halls of residence, both for students and the elderly
- Hospitals

Over the 2006-2007 year work was done with the Regional Ministry for Equality and Social Welfare to raise the number of participating centres which it was responsible for and it proved possible to double the figure for the 2007-2008 year, lifting it to fifty CASEs on the programme.

Likewise work is being done with the primary Hospital in Jaén province to use organic foods in the meals offered every day to the sick.

During the **2005-2006** year 12 CEIPs and 3 CASEs began the programme, with the number of diners reaching a total of 5,200.

The **2006-2007** year was significant for the growth in the number of CEIPs on the programme and old people's residences and students' halls of residence joining the programme, as well as the Hospital Virgen de las Nieves de Granada, with some 1,100 diners a day. In this year the number of centres on the programme amounted to 56 and the number of diners 7,400.

In the **2007-2008** period the number of centres on the programme rose to a hundred, with a figure of around 10,000 diners. In this year the chief aim is to raise the level of consumption of organic foods at all the centres taking part, continue efforts to produce quality meals and address shortages in zones with a lack of centres, as well as improve efficiency in supplying foods to centres on the programme.

As regards the consumption of foods by centres taking part on the programme, the average during the 2006-2007 academic year was **150 g/child/day**, this being 54% higher at the CASEs than the CEIPs. Within both types the deviation among centres is great. Fruits, vegetables and potatoes are organic foods more acquired by schools and nurseries. These three groups of foods represent 78% of all organic foods purchases to centres.

The total foods supplied during the 2006/2007 year under the social consumption programme was **134,800 kg** and total sales revenue by the producer/suppliers on the programme amounted to **208,002 euros**, which represents an expense per centre of 3,714 €.

### APPRAISAL OF THE DIETS AT CENTRES

During the 2006-2007 year a study was made to evaluate the state of the meals at 34 CEIPs by looking at 15 quality parameters, including the number of dishes with vegetables a week, variety and amount of fruit, dishes with pulses, meat or fish, etc.

According to the results obtained, two centres are above 75% of the optimum established as a balanced diet and 17 of them are between 45 to 60% of the optimum (the average being 53.7%). The principal diet deficiencies observed were low supplied of vegetables and fruit, a large quantity of animal protein and fried foods, which gives us the idea that there is still work to be done and awareness must be heightened at the centres.

### RATING OF ORGANIC FOODS BY CENTRES

During the 2006-2007 year, were interviewed those in charge of cooking at 42 centres taking part on the programme, 33% of these had started the previous year.

The aim of the interviews was to find out to what extent organic food was being brought in, how cooks rate it, and how popular the food was with diners, among other things, according to the year each centre started on the programme.

According to the feedback obtained, the following conclusions were reached:

- The general rating given by cooks for the quality of organic food according to its appearance was very positive, with a score of 67% for the categories of **Very good** and **Good**.
- The most highly rated foods in terms of their appearance were tomatoes, carrots and pulses.
- The general rating for the taste and smell of organic foods was very favourable as 93% of those surveyed gave answers of either **Very good** or **Good**. The foods most highlighted by cooks as regards their taste were potatoes, oil, pasta, pulses and meat, the latter being very popular among diners for its taste and the great difference noted when cooking this compared to the conventional type.
- 60% of cooks concluded that the quality of organic food is higher than that of conventional food.
- All cooks gave a positive rating for the popularity of the foods by diners, 93% of cases rated as **Good** and the remaining 7% as **Very good**.

Other studies are currently being made to include the educational community and families, and medical studies are to be started by Andalusian research institutions.

#### Conclusion:

The program open a new way for improve the organic foods consumption in Andalucía. The aim has been put that local producer driver these new market and stimulate them to joint to supply organic foods to social consumption. The different centres and society appreciate each time more the program benefices.

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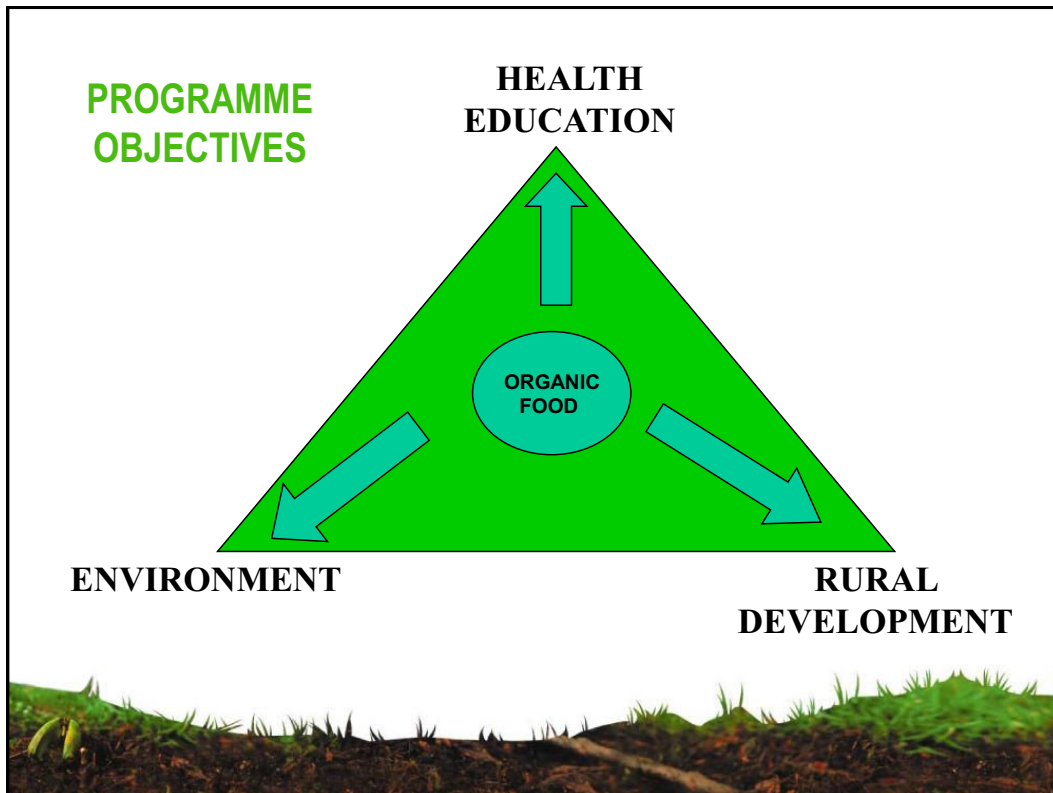
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## **PROGRAMME STRATEGIES**

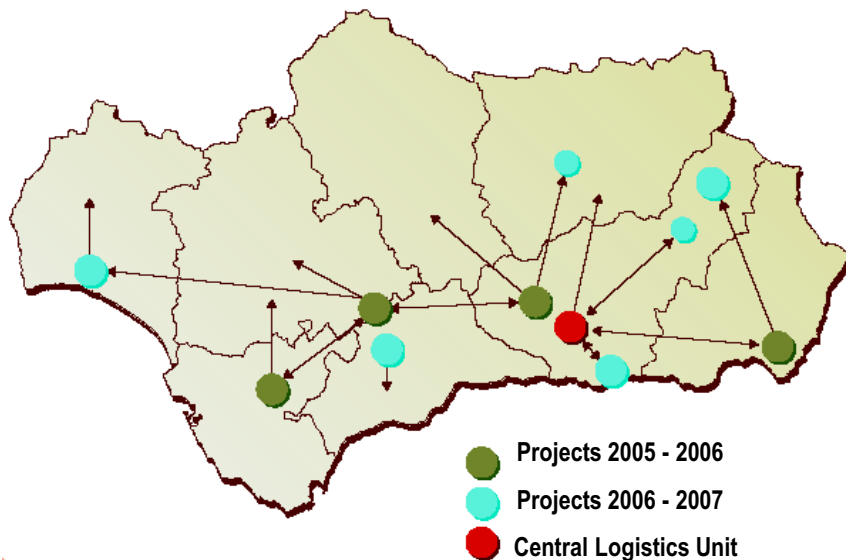
- First and foremost, we are concerned for the health of our population, in particular, our children and youth. (Social Responsibility and Driver for Change).
- Development of the Local Market as the basis for the growth of Organic Agriculture in Andalusia.
- Ensure a stable market for local organic producers. (Encourage Social Organic Agriculture)
- Spread the green message in the family and society through this project. (Education)
- Provide continuity of organic food supply at home.

## PROGRAMME STRATEGIES

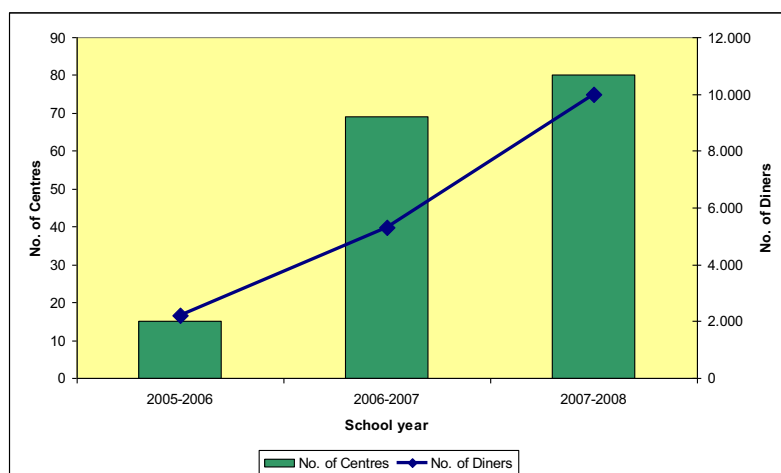
- Diversify production, and encourage local self-sufficiency (particularly, at provincial level)
- Foster partnerships between organic producers from different Andalusian areas and regions (Mutual Growth).
  - Coordinate production
  - Complement the supply
  - Develop logistical infrastructures
- Conclude joint agreements for foods that need to be imported from another Autonomous Community or purchased from specific producers (meat, eggs, milk, pasta, etc.).
- Demand top quality and full responsibility of the participants in the programme in regard to organic production processes.

REPA (Andalusian Network of Organic Producers) +  
LOGISTICS UNIT

## Distribution of producers

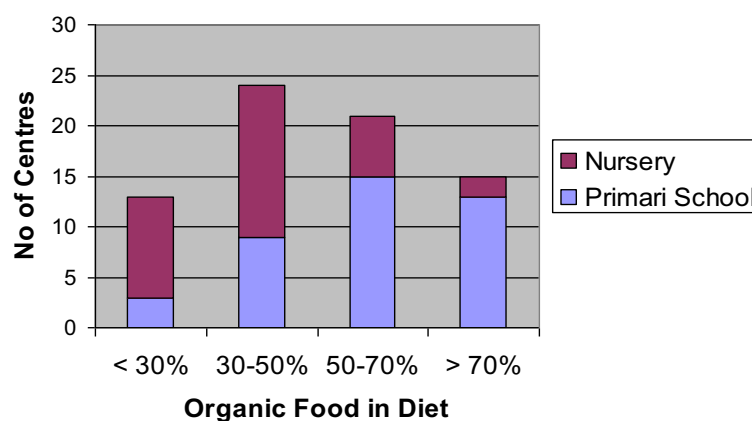


## Growth in the number of centres and diners



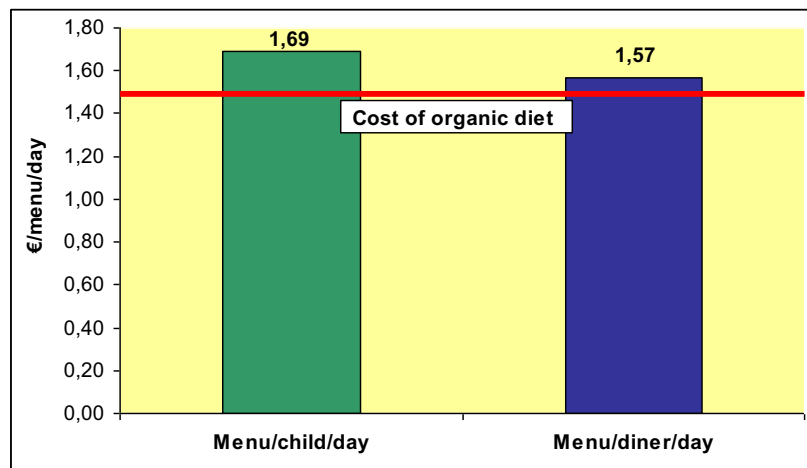
## Organic Food Use in Different Education Centers

### Organic Food Intake

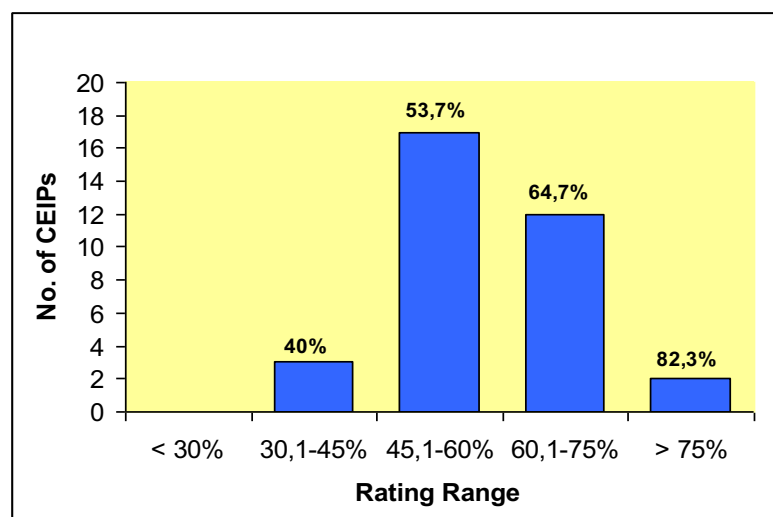


Objective is arrive more than 60% organic food in School diet

## Economic cost of School Organic Diner and Real Availability



## Distribution of the CEIPs per health indicator-based ratings assessment.



## Program Impaact

(teacher and cooker interview, n=67)

- **Program change the quality of school feeding**

- Increase vegetables in diet (70%)
- Reduce fried foods (63%)
- Reduce pre-cooked foods (65%)
- Increase fruits in daily diet (50%)

- **61% of teacher and cooker observed attitude change in children**

- Eating more sandwich and fruit in snack and less sweet
- Show more interest in health diet and organic foods



## Program Impaact

(Parents interview, n=220)

- **66% of parents observed attitude change in children**

- Request vegetables and fruit at home (37%)
- They took every time more about environment (18%) and healthy diet (32%)
- Children get sick less (18%)

- **52% of parents affirm that they incorporate organic foods at home diet, mainly vegetables, fruits, eggs and olive oil**

- **88% of parents affirm they intention in introduce organic foods at home diet in height level, but 88% declare have difficult to found them and only 30% thinks that they are expensive**



## Programme training activities

- Extracurricular activities for children. Workshops on:

- 1) Healthy Food-Organic Food.
- 2) Organic Food Production protects the Environment.

- Visits by nutrition consultants and collection of information.

- Training Seminars and Conferences for chefs, teachers, and parents.



## Other Programme activities

Printed support material:

- **Eco-Recipe books** for each type of centre (CEIP or CASE) differentiated by age and seasonality.

- **Eco-Bulletins** provide regular updates to the parents on the implementation of the programme, and act as a tool to promote healthy and organic food.

- Also, the book “**Yo consumo ecológico**”, which is a version of the Italian book “Io mangio bio” on healthy eating habits adapted for children, was produced.



## Other Programme activities





# Pilot Project

## Organic Food for Schools



Green marketing

Tom Vaclavik

## Project details

- Funded by the European Social Fund
- Project coordinator: Tom Vaclavik
- Scope: two regions, 5 pilot schools
- Goal: identify barriers hampering introduction of local organic food into school catering
- Time: July 2006 to February 2008





# Main results of the project

## Barriers:

- Price barrier
- Lack of information about where to buy, how to order
- Non-existent supply chain for organic public catering
- Lack of education among teachers, parents, kids

## Positive results:

- Enthusiasm among all stakeholders, except farmers
- Parents willing to pay more to have organic food

**Green marketing**

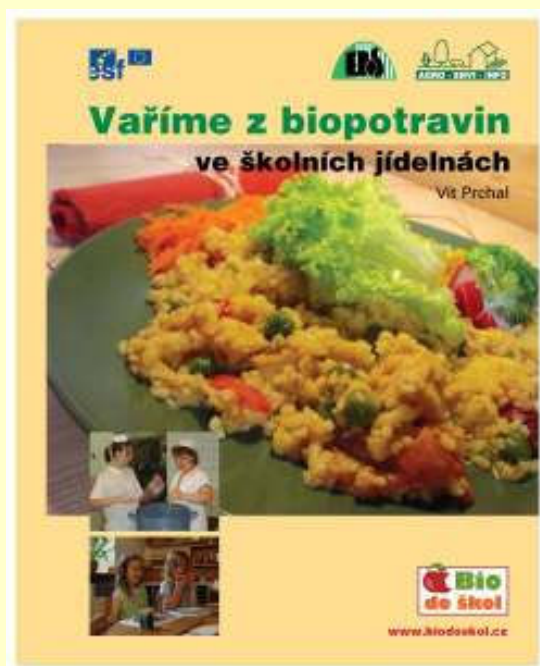
## Organic Day at schools

- Workshop with kids and a teacher
- Workshop for cooks
- Preparation of organic lunch
- Organic lunch



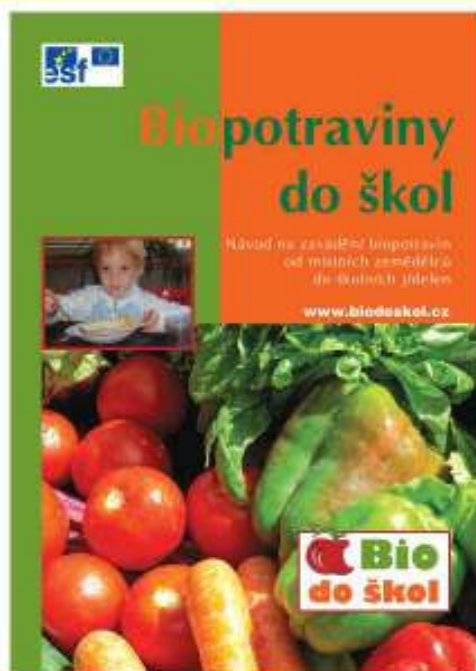
**Green marketing**

# Cookbook for school canteen cooks



Green marketing

## How to introduce local organic food into school kitchens – Manual



- How to find local supplier
- How to include local, seasonal food into your recopies
- Advantages of working with local suppliers
- Activity ideas for teachers

Green marketing

# Teacher's Manual



**How to in Organic Farming** – methodological instruction book for teachers

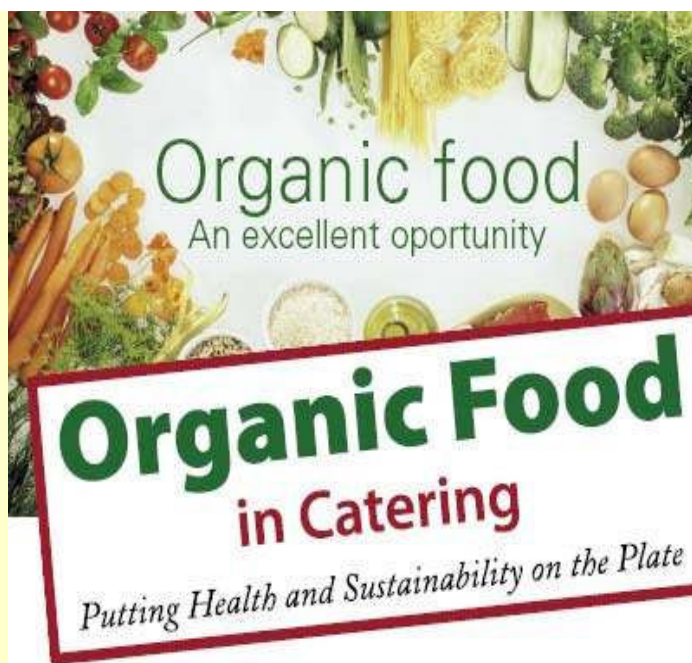
**Green marketing**

Web presentation [www.biodoskol.cz](http://www.biodoskol.cz)



- Free download of all information and educational materials
- Cookbook and Manual
- Address book of organic food suppliers
- Examples of working projects





International Conference on Organic Food in Catering  
Accompanying event to the SALIMA 2008 International Food Fairs, Brno, Czech Republic

**5th March 2008, 9.00 a.m.–3.45 p.m.**  
**Brno Exhibition Centre, Czech Republic**

With participation of **IFOAM**

**General Partner:** The South Moravian Region  
(Jihomoravský kraj)

**Partners:** City of Brno, Ministry of Education

**Programme organiser:**  
Tomáš Vlček

**Green marketing**

Central European  
Exhibition Centre



BVV

**Veletrhy  
Brno**

## Conference programme

8.00–9.00 Organic Breakfast  
9.30–9.00 Conference participants Registration  
9.00–9.10 Welcome, Ondřej Liška, Czech Minister of Education  
9.10–9.15 Welcome, Brno municipality government representative

### Food and Health

9.15–9.35 Organic Food: Going beyond personal health  
Dr. Carole Stessens, University of Applied Sciences, Münster, Germany  
9.35–9.55 Organic food quality and human health  
Christa Hölzl, BioAustria, Austria  
9.55–10.00 Q&A Session

### Czech Experience

10.00–10.15 Pilot Project: Organic Food to Schools,  
Tomáš Vlček, Green Marketing, Czech Republic

### Austrian Experience

10.15–10.35 10 Years of Organic food in Public Catering in Austria  
Mag. Rosemarie Zehetgruber, Kallbinger & Zehetgruber OEG – gütessen consulting  
10.35–10.55 Organic food in Vienna, Uli Sma, Vienna, Austria (Invited)  
10.55–11.00 Q&A Session

### Italian Experience

11.00–11.15 Coffee Break  
11.15–11.35 Sustainable public food procurement: the Italian model  
Roberta Sorrento, Cardiff University, UK  
11.35–11.55 Organic Food for Roma schoolchildren, Key note speaker: Dr. Silvana Sari, Roma, Italy  
11.55–12.00 Q&A Session

### German Experience

12.00–12.20 1 000 organic kitchens in Germany, Rainer Roehl, a'verde, Germany  
12.20–12.40 Organic food in school cafeteria, Prof. Petra Teitschold, Fachhochschule Münster, Germany  
12.40–12.45 Q&A Session  
12.45–1.45 Slow Food Lunch, prepared by local chefs Hospital, Roy Heath, Cornwall Food Programme, UK

### UK Experience

1.45–2.05 Food for Life Project, Joanna Collins, Soil Association, UK  
2.05–2.25 Local and Organic food in the Royal Cornwall Hospital, Roy Heath, Cornwall Food Programme  
2.25–2.30 Q&A Session

### Danish Experience

2.30–2.50 Organic school meals in Copenhagen, Astrid Dahl, Denmark  
2.50–3.10 Organic food in public catering in Denmark, Thorkild Nielsen, Denmark  
3.10–3.30 Q&A Session and Conference wrap-up  
3.30–4.00 Organic buffet

More information at Green marketing Tomáš Vlček  
phone: +420 541 263 456, email: [tom@greenmarketing.cz](mailto:tom@greenmarketing.cz)

State as of 15th January 2008. Change in programme reserved

## Why you should attend:

- Learn from real life case studies from various European countries about implementing organic food into public catering
- Find out why organic and local food is important for our health
- Get inspiration and new ideas, that you can immediately apply
- Find out how successfully use organic food to increase satisfaction of your customers
- Exchange up-to-date information and experiences in informal discussions with experts and peers

### Date/Time/Venue

**Date:** Wednesday, March 5, 2008

**Time:** 9.00 a.m.–3.45 p.m.

**Venue:** Press Center, Pavilion E, Brno Exhibition Center, Brno, Czech Republic

### Transport to venue: click here for information.

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Don't miss out on this valuable event, make your plans today. Register now to attend the Organic Food in Public Catering Conference and save € 30 with early bird pricing € 50 through 19/02/08.

Early Bird Registration Fee: € 50

Registration after February 19: € 80

### Conference organiser: BVV Trade Fairs Brno

Contact: Eliška Ondráčková, phone: +420 541 152 530

e-mail: [eondrackova@bv.cz](mailto:eondrackova@bv.cz), [www.salima.eu](http://www.salima.eu)

### Catering partner:

Slow Food Prague

### Media partners:

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[www.gastronews.cz](http://www.gastronews.cz)



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**[tom@greenmarketing.cz](mailto:tom@greenmarketing.cz), [www.greenmarketing.cz](http://www.greenmarketing.cz)**

# Current Situation and Outlook for Korea's Environment-friendly Organic Agriculture

## Based on School Meal.

Dr. Jeong, Jin Young

Chairman of Korea Organic Farming Association

### 1. History of Korea's Environment-friendly Organic Farming

Year 1970: About 10 advanced farming households first emphasized the necessity for organic farming and began practice by them selves.

Year 1978: Since the founding of KOFA, practical technical education was given to farmers with increase in members (3-day-and-4-night training launched 503 times with 32,000 members acquired).

Year 1991: Established the 『Organic Farming Development Planning Task Force』 in the Ministry of Agri-forestry.

Year 1993: Assisted establishment of 200 public compost plant (Among US\$250,000, it was government subsidy 50%, loan 30%, private charge 20%).

Assisted formation of organic farming complex (over 10ha) (Among US\$150,000, it was government subsidy 50%, loan 30%, private charge 20%).

Year 1994: Launched environment-friendly organic(EFO) crops certification service (Ministry of Agri-Forestry).

Certification \ Contents	Chemical Fertilizers	Agricultural Chemicals
Low Pesticide	▲50%	▲50%(None herbicide)
None Pesticide	less than 30%	None
Organic	None	None

Year 1997: Enacted the 『Legislation for Environment-Friendly Agriculture Development』 .

Launched direct payment.

Low Pesticide certified 563\$/ha

Non Pesticide certified 725\$/ha

Organic certified 854\$/ha

(Jeong-Eub City :Low Pesticide 1,075\$/ha, Non Pesticide 1,613\$/ha, Organic 2,150\$/ha)

Formed Korea Federation of Sustainable Agriculture Organizations

- 41 producer-consumer groups participating

Year 2000: Assisted environment-friendly megalo-complexes.

- 10.8M\$ size business to complexes over 1,000ha.

(Government subsidy 40%, loan 40%, private charge 20%)

Year 2002: Began transferring environment-friendly organic crops certification task to private organizations

- 39 certification organizations operating under Union of Environment-friendly Certification Organizations

Year 2007: Environment-friendly Organic Certified Farm Produce 7.5%, yearly sales 19.3B\$

Year 2008: EFO crops exclusive wholesale market establishment launched

- Planned to complete its construction in 2011

- 269M\$, 50,000 m<sup>2</sup> building, 165,000 m<sup>2</sup> ground

## 2. History of Environment-Friendly School Meal

### 1)Necessity for Environment-friendly School Meal

- Due to growth of heavy chemical industries and interference of endocrine disruptors exposed during conventional agriculture's abuse of chemical fertilizers, agricultural chemicals, herbicides, growth hormones, antibiotics etc., the health of not only whole national population but especially of the children is seriously deteriorating.
- Among newborns, infants, kindergarteners and school children between 0~14 years of age, 29.5% have Atopy skin disease, 26% Asthma and 25% ADHD syndrome. (August 2007, Graduate School of Public Health, SNU, Seoul Metropolitan Office of Education)
- 43.8% of 22 year old young soldiers experience sterility due to reduction in number of sperms and weak vitality. (Feb. 26, 2005, Korea Food & Drug Administration)
- Of all the deaths, those from cancer account for 27.6%. (as announced by the Government in 2008)

It is confirmed(①JH,Park.2004. ②SY, Lee.2007) that residual virulence and environmental diseases were cured when taking in organic produces.

①JH,Park.2004. Well-Being food & life. Kimyoungsa.Seoul:pp.78-90.

Three persons(22 years old Mr. P, 21yrs Mr.C, 21yrs Miss K)of heavy Atopy Skin Disease Patients were started to take 100% of organic hurred brown rice and vegetables and eliminated 90% of salts altogether at the same date.

After three months, they began to be cured and after six months they cured almost 80~90%, and finally after one years, all of patients were entirely cured without any skin traces.

②Sy, Lee.2004.Korean Primaryschool students are dangerous. Nohv.Seoul:pp.108-113

A 5 years boy Mr.E had heavy ADHD syndrom. But, as he started to take 100% organic foods, it has changed steadily and after six months he has changed to entirely different boy.

He could control himself perfectly and hyper-actions also has entirely disappeared and finally he became more modestly than before.

## 2)Encouragement Campaign for EFO Produce Based School Meal

- Year 2001: Regulation amendment campaign for environment-friendly produce school meal to 253 nationwide megalopolis/provincial and regional(city/county) governments
- Lecturing tour for the necessity for environment-friendly school meal to consumer women group members
- Year 2002: Banpo Elementary School started rice and kimchi centered non-pesticide certified farm produce school lunch, first in the nation.  
-An opportunity to gradually spread the campaign nationwide
- Year 2003: Jeju-do Province and Naju City became the first to successfully amend environment-friendly school meal regulation.

## 3)Current Situation

- Conventional Farm Produce Based School Meal(1~12 grades)

(‘98) 7,141 schools, 3.76 M students⇒(‘03) 10,242 schools, 6.99 M

⇒ (‘07)10,986 schools, 7.44 M students

(99.6% of total 11,030 schools, 95.6% of 7.78million students)

Budget of Conventional School Meal Expenses (‘98) 981M\$⇒(‘06) 3.72B\$

(‘06)Parents 75.4%, Government 23.6%, School meal supporter committee 1%  
76.3% of total lunch providing schools are operating in-school dining halls.

- Status of EFO Produce Based School Meal

Year 2007: Jeollanam-do Province leads nationwide provincial governments by securing 38.9M\$/yr for 100% environment-friendly school lunch subsidy to all students from 1~12 grades

- When the 22 cities/counties in the province organize supplementary budget, provincial expenses are distributed through matching fund
- Suncheon City tops the nation with provincial subsidy +city subsidy total of 7M\$/yr
- As a result, it's strongly related to boosting production spirit of farmers who are practicing organic farming and rise in income thanks to stable sales within Jeollanam-do Province.

Also, revival of regional community environment and natural ecosystem as well as health improvement effect of children and juveniles are much expected

- 6,625(60.1%) out of 11,030 schools from 1 to 12 grades nationwide are carrying out partial(rice & kimchi) or 100% environment-friendly school meal.

### 3.Case study of Suncheon city, Jeollanam-do Province

- Year 2002: 3-days organic farming training education tour(65\$/person) being carried out by selecting 200 leading farmers by 12 districts within the city Education carried out to city's consumers for the necessity of regularly consuming organic produce (20 sessions with 400 listeners/session)
- Year 2003: Regulation amended for environment-friendly school meal
- Year 2004: Expansion in stages by launching environment-friendly school meal
  - As of 2007, supplying 100% environment-friendly farm produce to all schools and students from 1~12 grades

#### 1) Suncheon City's Business Objective

- In accordance with 『Education-oriented City』 through lifelong learning slogan, it promotes healthy growth of both mind and body to students in growth stage by supporting environment-friendly farm produce as food material



- Consumption promotion and expansion of cultivation area of environment-friendly farm products produced in 『Environmentally Clean City』 where nature and human get together thus contributing to farming household income.

## 2) Business concept

- Previous school meal were initiated mostly borne by the parents where some food materials supplied were of imported or low quality conventional produce due to weak finance.

This time best quality EFO farm produce from our region were purchased & supplied where the expenses were assisted by Suncheon City.

- City's support was all used in purchasing environment-friendly farm produce thus contributing to distribution activation and rise in income of producing farm households

Parents+Govern. borne expense(Average 2.1\$ per meal) +City supported environment-friendly food material(Average 0.61\$ per meal)

=Environment-friendly farm produce school lunch (Average 2.71\$ per meal)

## (3)Current Support

Yearly EF school meal food material support

(Unit: million\$)

Category	2004	2005	2006	2007
Amount	1.31	3.27	5.37	7.04
No. of schools	100	240	287	311
No. of students	53,073	59,539	62,370	63,814
Food Items	49	65	68	68

## 4) 2008 Assistance Plan

- Target: 311 schools, 63,814 students (183 orphanage, 54 kindergarten, 74 from 1~12 grades)
- Budget: 7.2M\$

- Method: Supply of EFO goods (contract cultivation)
- Items: Environment-friendly farm produce from our Sunchoen region
  - ⇒ Production farming households + supplier contract cultivation
- Key Points
  - Contract cultivation for the stable supply of environment-friendly farm produce:
    - 750ha ⇒ Supply of environment-friendly farm produce through role assignment per department/organization
  - Realization of citizen participated administration
    - ⇒ Parents, students, nutritionist, farmers, NGO etc.
  - Underground water quality inspection by supplier
    - ⇒ 48 items besides nitrate nitrogen (NO<sub>3</sub>-N)
  - Food material safety inspection
    - ⇒ Dangerous factor management such as residual agricultural chemicals, heavy metal contamination

#### 5) Reported Business Performances:

- Selected as exemplary case by Board of Audit and Inspection, Ministry of Education and Human Resources Development, Jeollanam-do
- Establishment of school meal support system (gathering, selection, packaging, delivery etc.)
- Key Press Coverage
  - No problem with school meal issue!: Twice covered in KBS1 TV 9 o'clock news
  - Alternative school meal found in Suncheon, Jeollanam-do: Hankyoreh, Naeil Shinmoon
- School Meal Support System Standard Modelling
  - ⇒ A number of Suncheon benchmarking from Ministry of Education and Human Resources Development, Ministry of Agriculture and Forestry, other provincial governments

(5) Role per organizations

Suncheon City	<ul style="list-style-type: none"> <li>○Establishment of school lunch support plan</li> <li>○Budget acquisition for food material support</li> <li>○Support deliberative committee under way</li> <li>○Environment-friendly produce supplying alternative made (contract cultivation)</li> <li>○Guidance, inspection on food material assistance business</li> </ul>
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Office of Education	<ul style="list-style-type: none"> <li>○Check up of food material volume being used</li> <li>○Consideration of equal menu system program</li> <li>○Guidance, supervision of food materials to schools under Office of Education</li> </ul>
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Lunch Providing School	<ul style="list-style-type: none"> <li>○Check up of supplier's food material delivery (issues confirmation document)</li> <li>○Preparation and notification of weekly menu table to supplier</li> <li>○Manages environment-friendly school lunch menu</li> <li>○Launching of proper eating habit formation education</li> </ul>
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Supplier	<ul style="list-style-type: none"> <li>○Environment-friendly produce contract cultivation</li> <li>○Food material delivery based on school's menu table</li> <li>○Food material safety management (residual agricultural chemical, water quality inspection etc.)</li> </ul>
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#### 4. Outlook on Environment-friendly Organic Produce School Meal

## 1) Obstacles

- No central government's subsidies until now on.
- Even provincial governments do not support kindergartners.
- Due to difficulty in acquiring supplementary budget, not all food materials are being replaced with environment-friendly organic produce.
- Due to lack of understanding from parents, city/county assembly members, mayors and other civil servants, acquisition of necessary budget is being delayed.
- It's regrettable that only low/non-agricultural chemical certified produces are being supplied instead of organic crops due to budget issue.

## 2) Future Outlook

- Not only the Ministry of Agro-fishery-food but also other Ministry of Education and Human Resources Development, Ministry of Health and Welfare etc. are starting to understand the necessity for environment-friendly organic farm produce school meal.
- The importance of supplementary budget acquisition by the central government is under discussion
- The General Assembly dining hall is also started to use non-agricultural chemical certified rice from last year thus expected to positively contribute to establishment of supplementary budget.
- Jeollanam-do's case is being publicized to and guiding 15 Provinces and Metro-cities nationwide.
- Government's establishment of environment-friendly organic produce exclusive wholesale market is under way (to be opened in 2011 with 268M\$ budget).
- With NGO's requesting the government for additional organic produce school meal assistance to all students from kindergarten through 12 grade, 487.3M\$/yr government subsidy being proposed on condition that additional expenses of 1.07\$/person will be distributed as parents 50%, central government 25%, province 12.5% and city/county 12.5% ( $1.07\$/p \times 220\text{days} \times 8.28\text{M students} \times 25\%$ )

- Seoul-Metrocity amended school meal regulation in Sep.2007 and starts EFO school meal support from 2008  
⇒ Expectably spread all over the country within a couple of years.
- Sangji University is also providing 100% environment-friendly farm produce thus largely expected to spread to universities nationwide.  
(Dr. Kim Sung-Hoon, former minister of Ministry of Agr-fish-food is the president)
- Under present trend, we could forecast 100% of non-pesticide or organic certified produce school meal to be attained to 100% of schools by 2010 with utmost education and encouragement being given.

**✂ A certain way to protect mankind's future hopes is  
only to provide 100% organic products school meal  
to all children on our planet !!**

## Current Situation and Outlook for Korea's Environment-Friendly Organic Agriculture Based on School Meal

Dr. Jin Young, Jeong: Chairman of Korea Organic Farming Association (KOFA)  
E-mail : kofa@chol.com

### 1. History of Korea's Environment-Friendly Organic Farming

- Year 1970: About 10 advanced farming households first emphasized the necessity for organic farming and began practice by them selves.
- Year 1978: Since the founding of KOFA, practical technical education was given to farmers with increase in members (3-day-and-4-night training launched 503 times with 32,000 members acquired).
- Year 1991: Established the 『Organic Farming Development Planning Task Force』 in the Ministry of Agro-Fishery-Food.
- Year 1993: Assisted establishment of 200 public compost plant (Among US\$250,000, it was government subsidy 50%, loan 30%, private charge 20%).
- Assisted formation of organic farming complex (over 10ha) (Among US\$150,000, it was government subsidy 50%, loan 30%, private charge 20%).
- Year 1994: Launched environment-friendly organic (EFO) crops certification service (Ministry of Agro-Fishery-Food)

Certification \ Contents	Chemical Fertilizers	Agricultural Chemicals
Low Pesticide	▲50%	▲50%(None herbicide)
None Pesticide	less than 30%	None
Organic	None	None



- Year 1997: Enacted the Legislation for Environment-friendly Agriculture Development」.
- Launched direct payment.  
Low Pesticide certified 563\$/ha, Non Pesticide certified 725\$/ha, Organic certified 854\$/ha  
(Jeong-Eub City :Low Pesticide 1,075\$/ha, Non Pesticide 1,613\$/ha, Organic 2,150\$/ha)
- Formed Korea Federation of Sustainable Agriculture Organizations  
-41 producer-consumer groups participating
- Year 2000: Assisted environment-friendly megallo-complexes.  
- 10.8M\$ size business to complexes over 1,000ha.  
(Government subsidy 40%, loan 40%, private charge 20%)
- Year 2002: Began transferring environment-friendly organic crops certification task to private organizations  
- 39 certification organizations operating under Union of Environment-friendly Certification Organizations
- Year 2007: Environment-friendly Organic Certified Farm Produce 7.5%, yearly sales 19.3B\$
- Year 2008: EFO crops exclusive wholesale market establishment launched  
- Planned to complete its construction in 2011  
- 269M\$, 50,000m<sup>2</sup> building, 165,000m<sup>2</sup> ground

### 1) Necessity for Environment-Friendly School Meal

- Due to growth of heavy chemical industries and interference of endocrine disruptors exposed during conventional agriculture's abuse of chemical fertilizers, agricultural chemicals, herbicides, growth hormones, antibiotics etc., the health of not only whole national population but especially of the children is seriously deteriorating.
- Among newborns, infants, kindergarteners and school children between 0~14 years of age, 29.5% have Atopy skin disease, 26% Asthma and 25% ADHD syndrome. (August 2007, Graduate School of Public Health, SNU, Seoul Metropolitan Office of Education)



- 43.8% of 22 year old young soldiers experience sterility due to reduction in number of sperms and weak vitality. (Feb. 26, 2005, Korea Food & Drug Administration)
- Of all the deaths, those from cancer account for 27.6%. (as announced by the Government in 2008)
- It is confirmed(①JH,Park.2004. ②SY, Lee.2007) that residual virulence and environmental diseases were cured when taking in organic produces.

- 
- ① JH,Park.2004. Well-Being food & life.Kimyoungsa.Seoul:pp.78-90.  
Three persons(22years old Mr.P,21yrs Mr.C,21yrs Miss K) of heavy Atopy Skin Disease Patients were started to take 100% of organic hurred brown rice and vegetables and eliminated 90% of salts altogether at the same date.  
After three months, they began to be cured and after six months they cured almost 80~90%, and finally after one year, all of patients were entirely cured without any skin traces.
  - ②Sy, Lee.2004.Korean Primary school students are dangerous. Nohv.Seoul:pp.108-113  
A 5 years boy Mr.E had heavy ADHD syndrome. But, as he started to take 100% organic foods, it has changed steadily and after six months he has changed to entirely different boy.  
He could control himself perfectly and hyper-actions also has entirely disappeared and finally he became more modestly than before .

## 2)Encouragement Campaign for EFO Produce Based School Meal

- Year 2001: Regulation amendment campaign for EFO produce school meal to 253 nationwide mega-cities/provincial & Regional governments.
- Lecturing tour for the necessity for environment-friendly school meal to consumer woman group members.
- Year 2002: Banpo Elementary School started rice and kimchi centered non-pesticide certified farm produce school lunch, first in the nation.  
-An opportunity to gradually spread the campaign nationwide.
- Year 2003: Jeju-do Province and Naju City became the first to successfully amend environment-friendly school meal regulation.



## 3)Current Situation

- Conventional Farm Produce Based School Meal(1~12 grades)  
(‘98) 7,141 schools, 3.76 M students⇒(‘03) 10,242 schools, 6.99 M  
⇒ (‘07)10,986 schools, 7.44 M students  
(99.6% of total 11,030 schools, 95.6% of 7.78million students)
  - Budget of Conventional School Meal Expenses  
(‘98) 981M\$⇒(‘06) 3.72B\$  
(‘06)Parents 75.4%, Government 23.6%, School meal supporter committee 1%
  - 76.3% of total lunch providing schools are operating in-school dining halls.
  - ♣ Status of EFO Produce Based School Meal
  - Year 2007: Jeollanam-do Province leads nationwide provincial governments by securing 38.9M\$/yr for 100% environment-friendly school meal subsidy to all students from 1~12 grades  
-When the 22 cities/counties in the province organize supplementary budget, provincial expenses are distributed through matching fund  
-Suncheon City tops the nation with provincial subsidy +city subsidy total of 7M\$/yr  
-As a result, it's strongly related to boosting production spirit of farmers who are practicing organic farming and rise in income thanks to stable sales within Jeollanam-do Province. Also, revival of regional community environment and natural ecosystem as well as health improvement effect of children and juveniles are much expected.
- 6,625(60.1%) out of 11,030 schools from 1~12 grades nationwide are carrying out partial (rice & kimchi) or 100% environment-friendly school meal.(End of ‘07)



### 3. Case study of Suncheon city Jeollanam-do Province

- From the beginning, they assisted 3-days organic farming training education tour(65\$/person) being carried out since 2002 by selecting 200 leading farmers by 12 districts within the city.  
Education carried out to city's consumers for the necessity of regularly consuming organic produce (20 sessions with 400 listeners/session).
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- Consumption promotion and expansion of cultivation area of environment-friendly farm products produced in 『Environmentally Clean City』 where nature and human get together thus contributing to farming household income.

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- Previous school meal were initiated mostly borne by the parents where some food materials supplied were of imported or low quality conventional produce due to weak finance.
- This time best quality EFO farm produce from our region were purchased & supplied where the expenses were assisted by Suncheon City.



- City's support was all used in purchasing environment-friendly farm produce thus contributing to distribution activation and rise in income of producing farm households
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=Environment-friendly farm produce school lunch (Average 2.71\$ per meal)

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    - ⇒ Supply of environment-friendly farm produce through role assignment per department/organization
  - Realization of citizen participated administration
    - ⇒ Parents, students, nutritionist, farmers, NGO etc.
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  - The importance of supplementary budget acquisition by the central government under discussion
  - The General Assembly dining hall is also starting to use non-agricultural chemical certified rice from last year thus expected to positively contribute to establishment of supplementary budget.
  - Jeollanam-do's case is being publicized to and guiding 15 Provinces and Metro-cities nationwide.
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# Workshop posters



# **STUDENT'S CONCEPTION OF ORGANIC FOODS AND HEALTHY EATING AT SCHOOLS** **QUALITATIVE INSIGHTS FROM FOCUS GROUP INTERVIEWS WITH 5<sup>TH</sup> AND 7<sup>TH</sup> GRADE** **STUDENTS IN A COPENHAGEN ELEMENTARY SCHOOL**

**MALENE FALSTER OLSEN**

**National Food Institute**

**Stine Andersen**

**Anna Burkal**

**Bent Egberg Mikkelsen**



## **iPOPY**

The study is a part of the iPOPY project. The acronym stands for innovative Public Organic food Procurement for Youth and is one of eight pilot projects conducted under CORE Organic ([www.coreorganic.org](http://www.coreorganic.org)); a joint funding research programme among 11 European countries (2007-10). The project combines both case studies on innovative sustainable public food system for young people with cross sectional observational survey research designs. The workpackage 5 of the project is focused on in this paper aims at creating evidence on the fact that introduction of organic food supply at school can induce healthier eating among adolescents.

## **Aim:**

To examine the processes related to introduction of food provision supply systems in schools including organic food supply systems, and the influence these changes might have with regards to the pupil's understandings and attitudes on food, nutrition and organic procurement. The study seeks to take an everyday perspective as point of departure, in which the pupils own constructions of phenomena regarding food, nutrition, ecology, health and school meals are in focus.

## **Methods**

The study is a case study on a school in Copenhagen dealing with the development and introduction of an organic and healthy food supply. The study is founded within the humanistic tradition, and the data is collected and treated within a phenomenological and hermeneutical approach.

The methods for data collection are Focus group interviews with girls and boys in 5th and 7th class. The study focuses upon the experiences and understandings of the participants and how they describe their reality regarding health and ecology. An interview guide, together with thoughts concerning the interview setup, were drawn up to ensure the validity and reliability of the study.

This entailed among other things the moderator and the participant's roles. In the 6th class the pupils undertake a portion of the responsibility for the running of school Tuck shop, therefore this study seeks to gain an insight in the pre-knowledge of the pupils in the 5th class, and the knowledge and experience of the running of the Tuck shop from the pupils in the 7th class



## **Results**

Results from this study indicate a general demand amongst the pupils for a specific subject in which topics relating to environment and ecology are in focus. Especially pupils from the 5th class express a wish for more education about ecology.

The pupils in the 7th class express some uncertainty regarding the contents and relevance of such a subject. The interest regarding ecology appears to be deviant between the girls and boys in both classes, however a general interest for more education on the subject applies in both cases.

The study also indicates that the majority of pupils have a general understanding of the word organic. However it is generally prevalent that their knowledge about ecology derives from the home and TV-broadcasts.

The pupils in this study appear to be able of using their knowledge when shopping in supermarkets, and many answer "yes" when asked if they will buy organic foods when they move away from home. The participants understanding of health is particularly synonymous with sport and exercise, although absence of disease and the consumption of fruit are also mentioned as factors for health

Most of the students seem to have a sense of coherence between ecology and health and for the most part they have a knowledge of why the food in the Tuck shop is organic, but apart from that most of the pupils don't feel that they are included in the decision-making regarding the introduction of an organic food supply in the school. Among the older pupils the food in the Tuck shop is perceived as bland and expensive, and there is a clear tendency for the older pupils to buy their food outside of the school, even though the food isn't as healthy. It is though unanimous for all pupils that the food in school must be healthy.



## **Conclusions**

The study discusses the importance of school food being more than just food when the schools couple practice in the school Tuck shop with theory in the classroom. KØSS is mentioned as not only being a service system but also a pedagogical educational method for a future sustainable development. The school is discussed as a forum for communicating knowledge about health and consumerism in a way that students experience a sense of coherence between these factors. In this study it is pointed out that targets of the Copenhagen council's food supply aren't in keeping with the schools opportunities and surrounding conditions, together with the pupils understandings and attitude towards the initiative. The study argues for the introduction of a health orientated subject and the optimizing of the schools surrounding conditions. In order to obtain the most consistency between the surrounding conditions, the overall targets, and the pupil's expectations, this study examines the pupil's attitudes towards the environment, ecology and health together with their expectations towards a healthy food supply system





# Organic food in the Norwegian Defence

Liv Birkeland and Pål H Stenberg

## Natural Defence

As a response to the government's goal on organic procurement, the Norwegian Defence with its Systems Management Division decided to make 15 % of their food procurement organic within 2010 in one of their regions. That's 5 years ahead of the governments ambitions!



## Knowledge

Organic farming is knowledge intensive. So is organic catering!

Investing in knowledge about the values behind organic agriculture, the methods and products, makes our work more interesting. We are also better equipped to meet the challenges of how to procure organic produce and maintain the high quality from field to fork.

The project kick off was a 2-day course with:

- basics of organic agriculture
- the certification process
- visiting an organic farm
- experiencing good food

## Enthusiasm

The project benefit from the staff involvement and competence through goodwill and creativity. Some kitchens have already by 2008 achieved more than 15 % organic food.

## Interdisciplinary

The project management, kitchen staff and other employees in the Defense are in close contact and dialogue with various distributors, processors, farmers and other kitchens that work with organic products.



## Involvement

The kitchen staff is invited to participate in project planning, seminars, courses and study trips in Norway and abroad.

All the involved units are now certified by Debio for making and serving organic food.



## Management

The project "Organic food in the Norwegian Defense" is owned and directed by the Systems Management Division of the Norwegian Defense.

### Project leader:

**Commander Pål H Stenberg**  
(pastenberg@mil.no)

The research institute Bioforsk Organic is assisting the project with knowledge on organic farming and how to implement organic principals and products in catering.

Contact in Bioforsk Organic:  
Liv Birkeland  
(liv.birkeland@bioforsk.no)



## Barriers and Possibilities for Using Organic Ingredients in School Meal Systems

Rosenlund, H.S.

### Abstract

*The overall aim of the project is to examine ways to increase the use of organic ingredients in school meal systems, which are outsourced to private companies.*

*The project considers the following aspects:*

*1. The arguments that two Danish municipalities mention in relation to using, or choosing not to use, organic ingredients in school meal systems.*

*2. The reasons for school meal companies to use, or choose not to use, organic ingredients in their production, as well as the challenges they meet in relation to organic food.*

*In relation to analyzing how the municipalities organize the school meal systems, we include issues such as the most valued arguments used to legitimize their choice of meal system, objectives, involvement of users, most relevant decision makers, etc.*

*In the case of school meal companies, the project includes an analysis of barriers such as economy, supply of organic ingredients, structural conditions, cooperation with municipalities, etc.*

*The project is limited to examining the cases where municipalities have chosen to outsource the school meal system to a private company, and has its starting point in two Danish cases. These are Roskilde municipality, which cooperates with the company "Frydenholm," and Høje Taastrup municipality, which cooperates with the company "123-skolemad."*

*The project is still in process and will be completed by the end of May 2008. We expect the results to revolve around the following themes:*

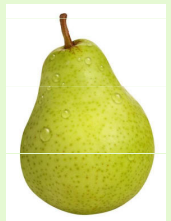
- Arguments regarding health-related issues dominate the discussion about school meal systems, leaving little room for environmental issues. This means that the use of organic ingredients is not very often prioritized.*
- In the two cases, there are very few actors involved in the decision-making process concerning school meal systems, which means that the process is dominated by views valued at the present time by the present actors. Scientific reports and experiences from other cases are seldom considered.*
- Lack of school meal suppliers means that the field is dominated by a small number of companies, forcing the municipalities to cooperate with one of these specific companies.*
- There are many structural and economic barriers preventing the school meal companies from using organic ingredients. Political support is crucial.*



# Possibilities and barriers for using organic ingredients in school meal systems

Stine Rosenlund Hansen & Hannah Wirenfeldt Schmidt

Students at Roskilde University, Universitetsvej 1, P.O Box 260, DK-4000 Roskilde  
Stroha@ruc.dk, hawisc@ruc.dk



## Introduction

The overall aim of the project is to examine ways of increasing the use of organic ingredients in school meal systems, which are outsourced to private companies. The project considers the following aspects:

1. The arguments that two Danish municipalities draw on in relation to legitimize the selection or deselection of organic ingredients in school meal systems.
2. The reasons for school meal companies to use, or not to use, organic ingredients in their production as well as the challenges they meet in relation to organic food.

## Methods

The project examines the cases where municipalities have chosen to outsource the school meal system to a private company, and has its starting point in two Danish cases:

- Roskilde municipality which cooperates with the company „Frydenholm“
- Høje-Taastrup municipality which cooperates with the company „1-2-3-skolemad“

The project analyses the decision making processes in the two municipalities, and focuses on issues such as most valued arguments used to legitimize the choice of meal system, objectives, involvement of users, most relevant decisionmakers etc.

An analysis of the barriers that the private school meal companies meet are also included in the project, with focus on economy, supply, structural conditions and the cooperation with municipal actors.

Several interviews have been conducted with important actors related to the municipalities and school meal companies. The project is also based on knowledge from our earlier work with school meal systems, which included interviews with canteen employees as well as a focus group interview with students (approximately 13 years old)

## Results

### *Municipalities*

- The dominating discourse about school meal systems in Denmark revolves around health. Therefore arguments regarding health related issues dominate, leaving little room for environmental issues. This means that the use of organic ingredients is not very often prioritized. This is the case in both the political and public debate.

- In the two municipalities examined in the project, there are very few actors involved in the decision making process concerning school meal systems, which means that the process is dominated by their personal opinion. Scientific reports and experiences from other cases are seldom considered. Hence, views valued at the present time by the present actors becomes determining.

- Lack of school meal suppliers means that the field is dominated by a small number of companies, forcing the municipalities to cooperate with one of these specific companies.

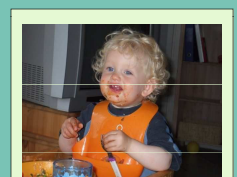
### *School meal companies*

- There are very few organic distributors and many distributors are not willing to deliver organic goods in small amounts. If school meal companies form networks, enabling them to buy a larger amount of goods, conventional distributors are more likely to accept a request to start producing organic ingredients for the school meal systems.

- When and how the organic ingredients are introduced in the school meal system is crucial for the level of success. If they are introduced in connection with the establishment of a school meal system it is easier to overcome potential barriers because the planning of menus can take the structures of organic production into consideration. Examples of this could be to use local, seasonally available ingredients and to prepare menus, which are flexible, with the possibility of substituting an ingredient if the price rises or the delivery fails.

## Conclusions

There are many structural and economic barriers preventing the school meal companies from using organic ingredients, and therefore political support is crucial. In Denmark it is restrictive for the possibility of using organic ingredients, that the school meal systems are based on a voluntary “day to day purchase”, mainly financed by students or their parents. The reason for this is that the demand for organic ingredients is not very high amongst the students, who are more likely to buy their lunch at the nearest fastfood shop. A possible solution to this problem would be to implement a system that is mandatory, and to ensure success, students should to some degree be involved in the planning. Politicians should however set the overall conditions considering nutritional and environmental issues.





## **Do organic foodservice intervention strategies lead to changes in the availability of healthy options – first results from a survey in Danish and Norwegian schools**

Chen He & Bent Egberg Mikkelsen

Key words: organic foods, public procurement, food and nutrition policies, school meals, healthy eating

### **Abstract**

*Obesity and overweight among children and young people is increasing in most countries in Europe and as a result schools are increasingly taking a role in both food provision, in promoting healthy eating, and nutrition education of young people by implementing healthy policies. At the same time schools are implementing environmental friendly policies i.e. organic procurement strategies (Mu, 2008). It is therefore relevant to investigate the relationship between the different components of such interventions. This study carried out a survey in primary schools in Denmark and Norway through a Web Based Questionnaire. The results indicate that there is an association between organic food strategies and the availability of healthy meal options. But further studies are needed in order to understand the nature of this association.*

### **Introduction**

Previous studies have indicated that there seems to be an association between organic food strategies and the availability of healthy meal options in catering facilities. For instance it has been shown that caterers serving organic food also serve healthier meals than their non organic counterparts (Mikkelsen *et al.*, 2006), however more is to be learned about such association types in different catering settings. This study investigates the association between Public Organic Food Procurement Policies and Food & Nutrition Policies and the praxis relating to these policies in Danish and Norwegian school food catering environments. We will use the notion of Public Organic Procurement policy (POP policy) to refer to a policy, practiced in public organizations offering food in which a specified amount of specified foods are expected to be organic. Similarly we will use Food & Nutrition Policy (FNP) to denote a set of written and adopted principles that aim to fulfil nutritional needs of pupils at schools and ensure availability and accessibility of healthy foods.

### **Purpose**

The purpose of this research study was to explore the relationship between public organic food procurement policies and food nutrition policies in relation to food services in public school settings. T

The aim of the analysis is to discover the relationship between organic food policies and the indicators showing the possibilities for healthy eating in Danish and Norwegian school food settings, firstly by asking headmasters about their policies and operational procedures in relation to school food, and secondly by comparing the “green” food policies & practices to the “healthy” food policies & practices in public school food settings. The project included carrying out surveys in the public primary schools (grade 1-9) in Denmark, and the public primary and lower secondary schools (grade 1-10) in Norway, based on a web-based questionnaire (WBQ). The study aimed at mapping of serving practices in relation to healthy eating strategies and the attitudes and practices of organic food procurement and policies at school.

## Materials and methods

A quantitative survey using a Web based questionnaire (WBQ) design was performed in Denmark and Norway. In both countries schools with organic food provision (POP schools) and conventional schools (non POP schools) were invited to respond to the WBQ. The participants were the school meal coordinators (see Table 1 which shows respondents). In Denmark, the names of the organic schools were collected with the help of school meal officials in the municipality of Copenhagen and Roskilde. A list of school names was received by e-mail. The names of the non-organic schools were collected from the National Food Institution, together with a small number of organic schools. These school names were already gathered prior to the study as they took part in previous research done by the institution. The final e-mail list of the schools was put together through a search on the Danish Education Ministry homepage (<http://www.uvm.dk/>), which provides a search engine for all of contact information of the schools in Denmark. In Norway hot school meals are not offered in schools, only fruit or milk. This meant that the school e-mails list, for the schools with organic/non organic fruit and organic/non organic milk provision, were classified. The organic/non organic fruit school names were obtained through a Norwegian colleague in the iPOPYPY project. The names of organic/non organic milk schools were provided by TINE. The gathering of the school e-mail list was done through a search on the Norwegian Education Ministry homepage (<http://skoleporten.utdanningsdirektoratet.no>). Finally, 408 organic schools and 486 non-organic schools were selected and expected to complete the questionnaire from both countries. (see Table 2). The link of the WBQ and the invitation letter to the participants were sent to the joint iPOPYPY developed e-mail list. There after two letters were sent to remind the schools that hadn't answered the WBQ (Neuman, 2007).

For the majority of schools that didn't answer the WBQ, the possible reasons were that, either the schools had replied that they were not interested in joining in the research, or they didn't have the time, or the schools didn't have a food coordinator and lastly it was possible that a certain amount of the schools e-mail addresses no longer existed.

**Table 1 Possible participant for the WBQ**

Informants	Responsibility
School headmaster	The principal of the school.
School coordinator	The coordinator between the municipality and the school environment, and also determines

	entities to operate the school meal system.
School kitchen operators	The person who is responsible for preparing school food and carry out serving practices, etc.
School food caterer	The person to ensure the quality and variety of school meals, and cooperate with food suppliers or catering company.
Teachers	They are involved as school kitchen operators.

**Table 2 Number of the selected schools in Denmark and Norway**

Countries	Number of schools
Denmark	93 schools with organic food provision 86 schools with only conventional food provision
Norway	210 schools with organic fruit provision 200 schools with conventional fruit provision 105 schools with organic milk provision 200 schools with conventional milk provision

The structure of the WBQ was as follows: background information, attitude, policies and serving practices.

#### Background information

- Personal
- School
- 

#### Attitude of respondents

- Organic food- school food/education
- Healthy eating habits- school food/education

#### Existing policies

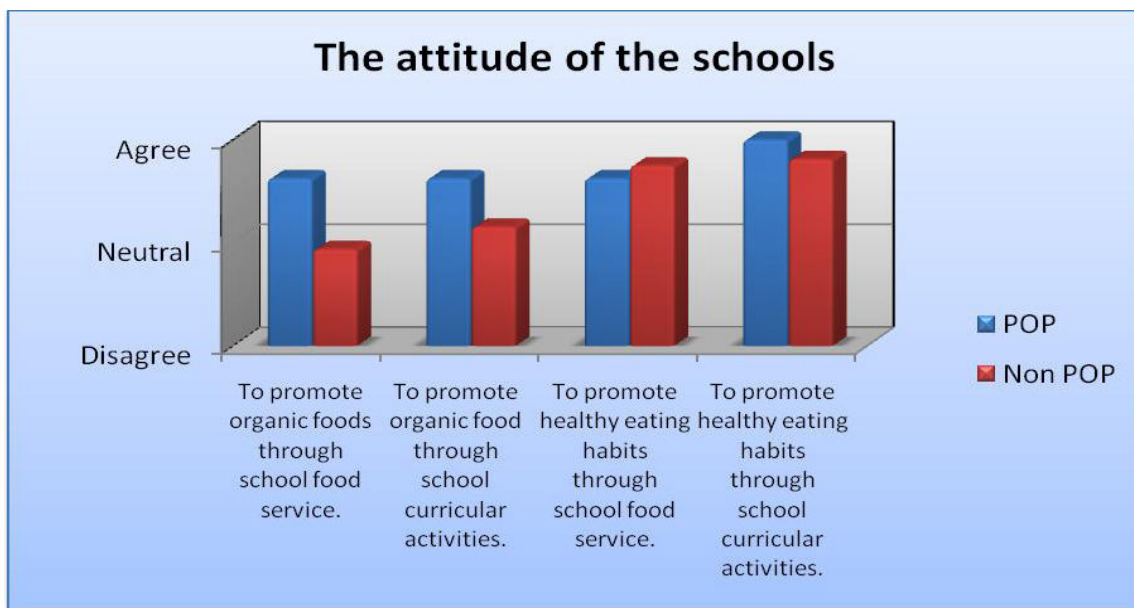
- Public organic procurement policy
- Food and nutrition policy
- Health school promoting
- Green flag school

#### Serving practice

- School fruit scheme
- School milk scheme
- School tuck shop
- School canteen
- Food items

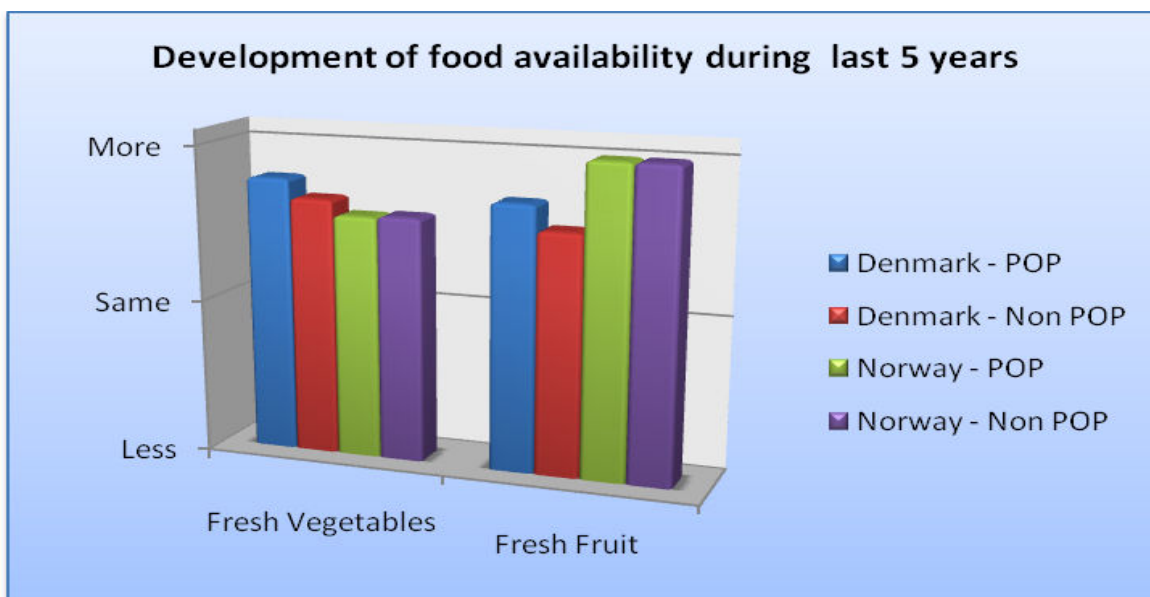
## Results

Data showed, that 167 out of 894 schools completed the WBQ, resulting in 79 Danish and 88 Norwegian respondents. In addition 68 schools partially completed the questionnaire.



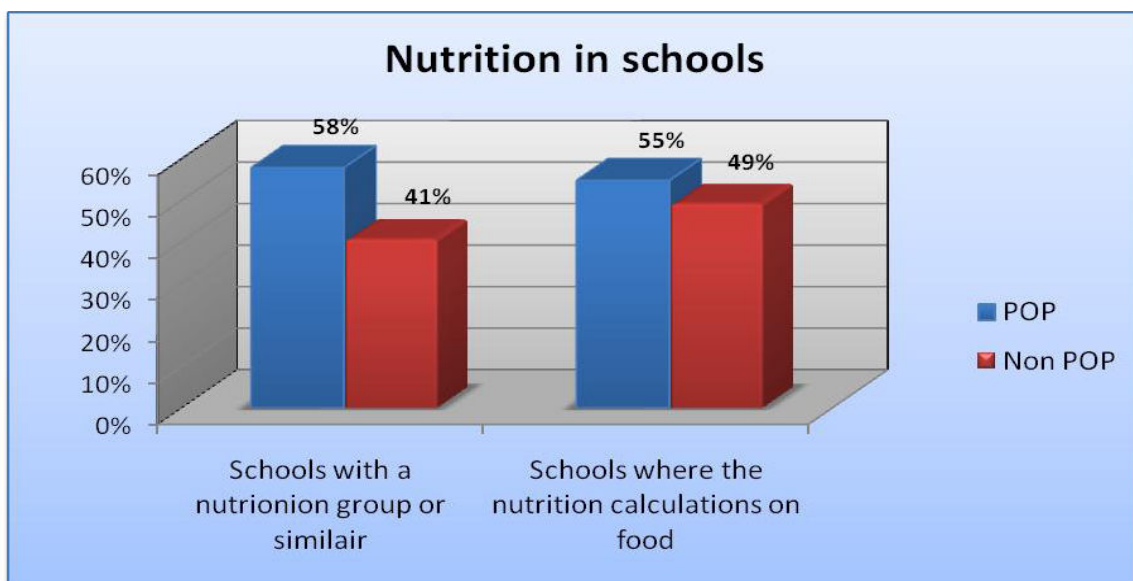
**Figure 1, The figure shows the attitude of the POP schools and the non POP schools, in relation to the respondent indicating having a responsibility to promote organic food and healthy eating habits, through the school food service and curricular activities.**

In figure 1 it can be seen that the POP schools have a more positive attitude toward promoting organic foods through school meals and school education than the non POP schools. However, on the issue of promoting healthy eating habits through school food services, the non POP schools have a more positive attitude than the POP schools, but the POP schools agree more strongly than the non POP schools about promoting healthy eating habits through school education.



**Figure 2.** The figure shows the changes of fruit and vegetable availability over the last 5 years both in Denmark and Norway.

Figure 2 indicates that the POP schools in Denmark have consumed more fruit and vegetables than the non POP schools, however in Norway no difference was found.



**Figure 3.** The figure shows the comparison between POP schools and non POP schools with regard to the nutritional issues.

As figure 3 shows, over half of the POP schools have a nutrition group or canteen group or similar, as do 41% of non POP schools. More POP schools than non POP schools nutritionally calculate their food menus on a regular basis, however, there is not a significant difference between them.

## Conclusion

These first results indicate that there seems to be a positive relationship between serving practices for healthy eating and organic procurement policies in schools. It shows that selected indicators of healthy food availability is associated with having organic procurement policies. The POP schools seem to consider issues, regarding children's health, more than "conventional" schools. Also the results suggest that the POP schools think the school should take more responsibility regarding children's health. From the small analysis of three charts, it seems that organic food intervention in schools can help to support healthier eating patterns among the pupils. However, the report is still in the processing stage, so more detailed analysis and stronger conclusions are yet to come.

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## Acknowledgement

This paper is a slightly different version of the poster "DOES ORGANIC FOOD INTERVENTION IN SCHOOL LEAD TO CHANGED DIETARY PATTERNS? –results from a web-based questionnaire among school meal coordinators in Denmark and Norway, by Bent Egberg Mikkelsen & Chen He, from the iPOPYPY Modena poster exhibition. This study has been made possible through the iPOPYPY project.

# DOES ORGANIC FOOD INTERVENTION IN SCHOOL LEAD TO CHANGED DIETARY PATTERNS?

—results from a web-based questionnaire among school meal coordinators in Denmark and Norway

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<http://www.ipopy.coreportal.org/>

## Introduction

During adolescence food habits, physical activity, and life style of young people are easily influenced by a number of actors and phenomena in the environment including parents, friends, advertisements and all of the changes occurring in society. The meal patterns formed during adolescence will be continuously influenced into their adulthood even following generations in the future. Since school increasingly is taking a role in both food provision and in health, environment and nutrition education of young people by implementing healthy and environmental friendly policies, it is relevant to investigate the relation between the different components of such interventions. In other words it is relevant to ask the question: does organic food supply police go hand in hand with healthy eating policies. This study that has been made possible through the iPOP project looks at the relationship in Danish and Norwegian school food setting by asking school headmaster about their policies and operational procedure in relation to school food. The purpose of the study is to explore the relationship “green” food policies & praxes to “healthy” food policies & praxes in public school food settings. The outcome of the research/questionnaire will be a mapping of serving practices in relation to healthy eating and the relation to attitudes and practices of organic procurement and policies.

## Methodology

A quantitative survey using a Web based questionnaire (WBQ) design has been performed in Denmark and Norway. Both the schools have organic food provision (POP schools) and conventional schools (non POP schools) in these 2 countries were invited to respond the WBQ. The participants are school meal coordinators. POP: Public Organic Food Procurement Policy refers to a policy, in which a specified amount of specified foods are expected to be organic, which are practiced in public organizations offering food.

The sequence of the WBQ is mainly followed as background information, policies and serving practices.

Background information

•Personal

•School

Policy

•Public organic procurement policy

•Food and nutrition policy

•Health school promoting

•Green flag school

Serving practice

•School fruit scheme

•School milk scheme

•School tuck shop

•School hot/warm meals

There are totally 168 schools that have completely answered the WBQ, and 64 have partly answered. The project is a part of the iPOP research project which is funded through the European Research Arena project CoreOrganic.

([www.coreorganic.org](http://www.coreorganic.org))

## Results

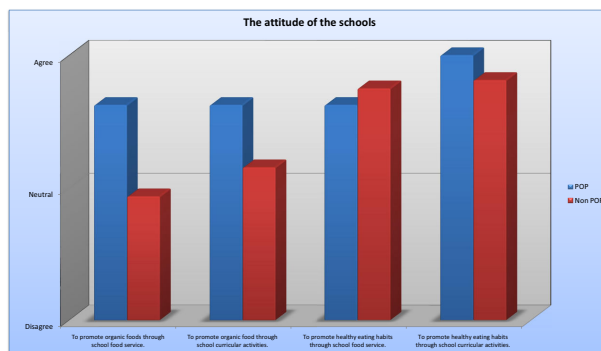


Figure 1 shows the attitude of the POP schools and the non POP schools, in relation to if the school has responsibility to promote organic food and healthy eating habits, through school food service and curricular activities. It can be seen that POP schools have more positive attitude than non POP schools in most attitude.

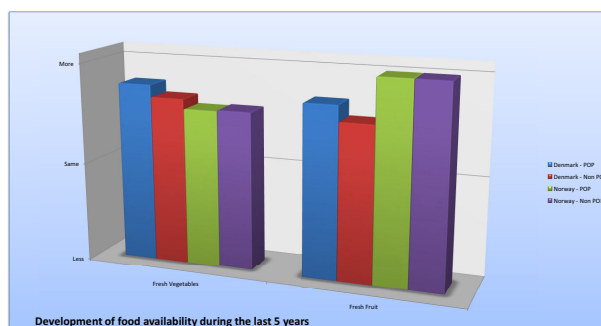


Figure 2 shows the changes of fruit and vegetable availability under the last 5 years both in Denmark and Norway. The POP schools in Denmark has consumed more fruit and vegetable than non POP schools, however the situation in Norway is no difference were found.

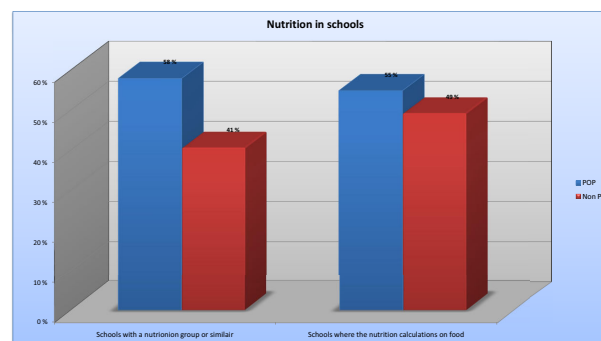


Figure 3 shows the comparison between POP schools and non POP schools with regard to the nutritional issues. Over half of the POP schools have nutrition group or canteen group or similar and 41% of non POP schools have it. There is more POP schools food /menus nutritionally calculated on a regular basis than non POP schools, but there is not a significant difference between them.

## Discussion

The results demonstrate that there is a positive relationship between serving practices for healthy eating and organic procurement policies at the school. It shows the consumption of healthy food is proportional to the organic procurement policies. And the POP schools seem to consider more about healthy issues for children than conventional schools. Also the results suggest that the POP schools think school should take more responsibility regarding children's health. Therefore, it seems that organic food intervention in school can help to build a healthy eating pattern amongst pupils. Additionally, it getting more and more schools is interested in organic theme, not only in school food but physical activities.

## THE SHAPING OF ORGANIC & HEALTHY SCHOOL MEAL PROVISION CONCEPTS - AN ACTOR NETWORK THEORETICAL PERSPECTIVE

Bent Egberg Mikkelsen & Chen He

Key words: organic foods, healthy eating, municipal food service, school meal provision, actor network theory

### Abstract

*School food in Denmark has unlike many other European countries traditionally been the responsibility of parents. However publically driven healthy school food and nutrition strategies is increasingly being applied as a measure to counteract the growing prevalence of obesity among young people. In addition school food has become a major focus for public organic procurement strategies that seeks to create more sustainable public service provision. Since there are no national regulation of school food provision the school and its food supply in Denmark has become an arena for development and experimentation in which municipalities and schools develop their own local solutions and in which actors seeks to make their own sense and meaning of these solutions. The purpose of this paper is to take a closer look at how these solutions come into being and how they are shaped according to specific local contexts and stakeholder conditions. The paper aims at applying an actor network theoretical perspective in that it takes as a point of departure that the emerging school food and nutrition systems can be regarded as a technology.*

*Three municipalities all actively involved in the development of organic and healthy school meal programmes were chosen as the study subjects. Based on an analysis of interviews with school food coordinators in the three municipalities, the paper identifies the involved actors and maps the interactions among them. After discussing the similarities and difference among the municipalities, the paper suggest that the school food and nutrition strategies might be viewed as a conceptual technology that due to the virtual absence of national regulation seems to be shaped and translated in slightly different directions by the local and municipal actor networks. An important consequence is that technologies seems to be "doing" things to users and that both users and other stakeholders seem to interact with and impact these technologies and result in different versions. It might be speculated that these different versions might develop a competition and that in turn the best version might win. The study suggest that actor network theory might be a valuable tool for studying this shaping process and thus has the potential to give valuable insight into the further development of healthy and organic school meals in Denmark.*

### Introduction

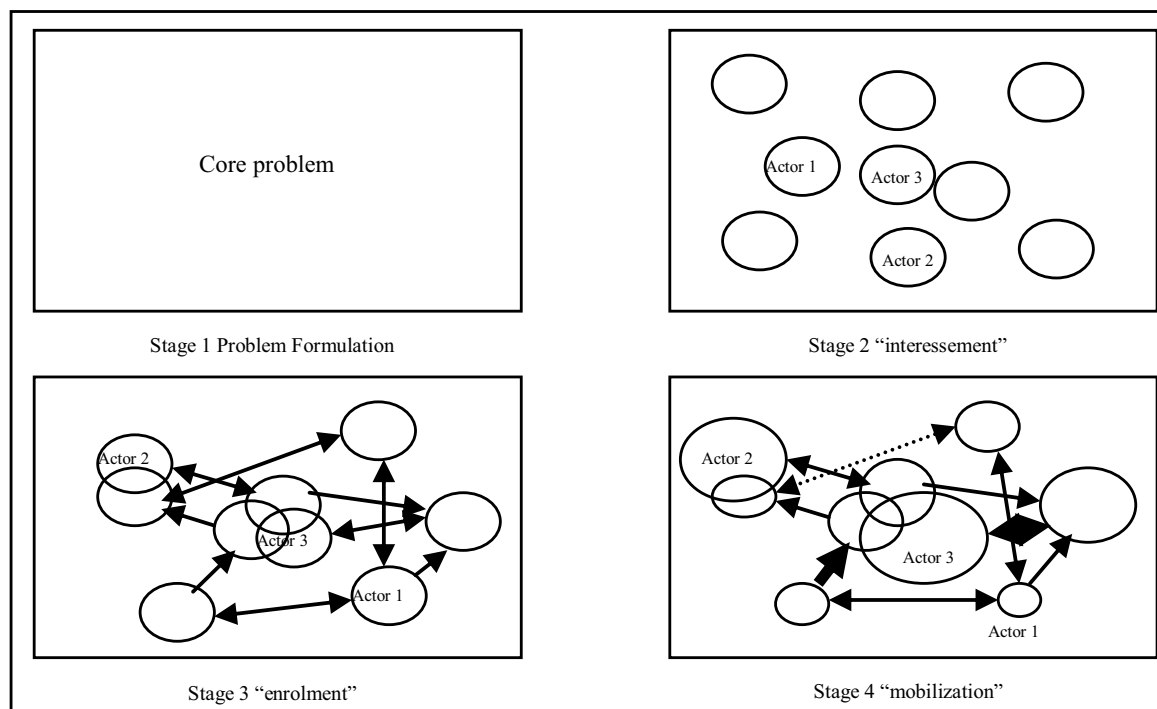
As the problem of overweight and obesity seem to become more common among young people, it is imperative to develop strategies that promote healthier eating patterns among children and adolescents. And since the meal patterns formed during adolescence tends to track into adulthood it is necessary to develop and implement effective strategies that can influence the eating and lifestyle habits of young people



(Council of Europe, 2005; WHO, 2006; EU, 2007). Healthy school meal systems are considered to be an effective strategy to promote such changes and increasingly such strategies have come to go hand in hand with organic supply policies and strategies that pursue environmental goals. However the development of school meal programmes is driven by a number of other factors for instance the wish to help busy parents that abandon the traditional home made lunch pack and the wish to make school food provision a new business opportunity for the food industry. And since there are now overarching national strategies for school food, the shaping of the new school food seems to be exclusively in the hands of local actors. Against this background an exploratory study of the shaping of new school food and nutrition technology was carried out in three Danish municipal cases. Common to all cases were that municipalities had decided to implement school food provision based on principles of healthy eating and organic food supply.

## Materials and methods

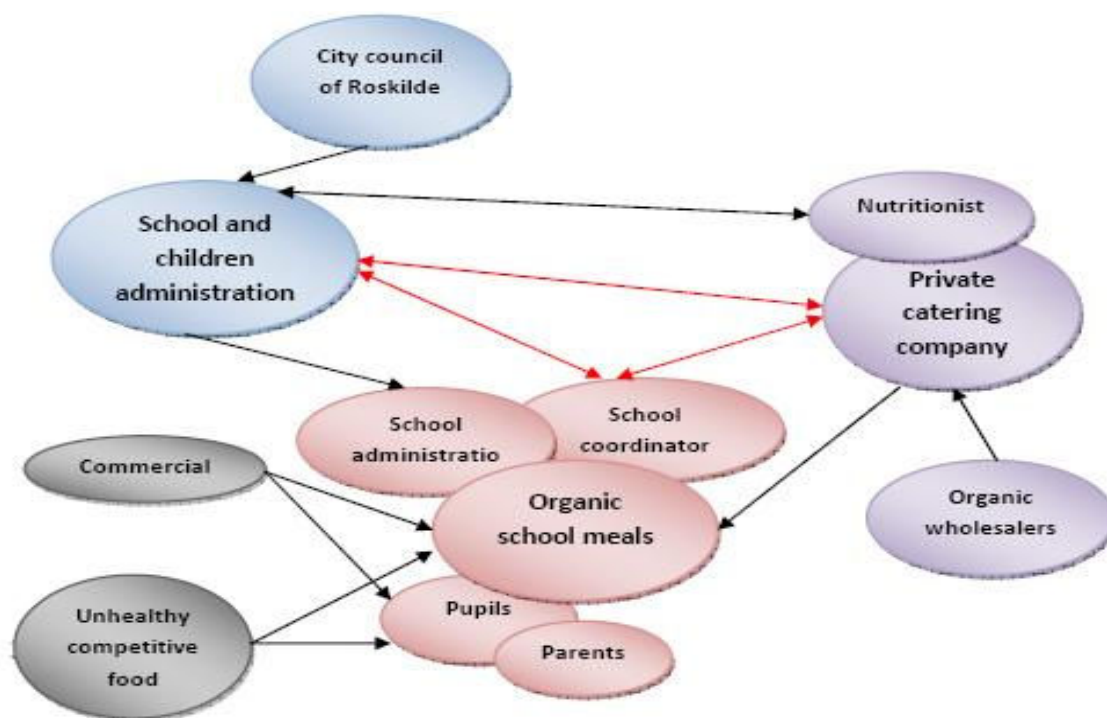
Case studies were carried out in Roskilde, Copenhagen and Gladsaxe. Face to face interviews were carried out with municipal school food coordinators. In this study we apply the actor-network theory (ANT) in the analysis of interviews. The aim of ANT is to contribute to the explanation of complex technological shaping processes and to show how this processes take place in networked social settings.<sup>1</sup> A basic principle in the ANT approach is to distinguish between four different stages of translation.<sup>2</sup> The first stage is called formulation of the problem, the statement of the problem through a single question. The second stage involves identify the actors into place through a process of “interessement”. The next stage is described as “enrolment”, in this stage of analysis, the cooperation and relationship among each actor should be illustrated. The last stage is called “mobilization”, in this final stage of analysis, it emphasizes that the structure which has been framed cannot be viewed as permanent in any way. During the implementation of the programme, the status of each actor may change from time to time, which should not be ignored during the process of “translation”.



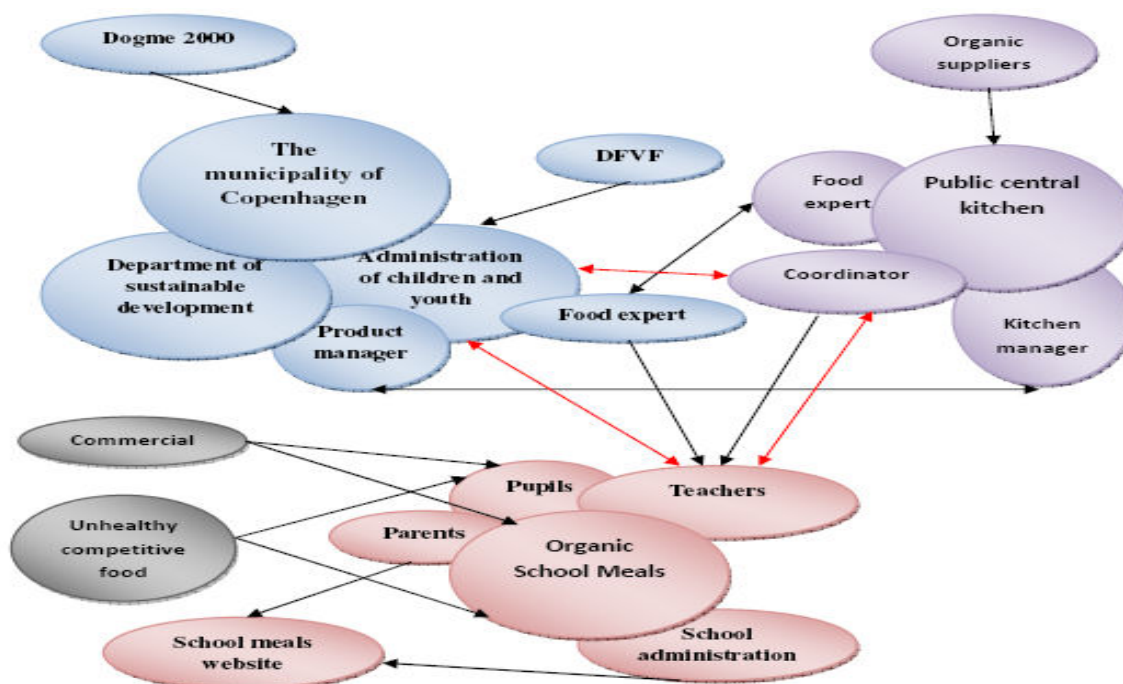
**Figure 1: Actor-network Theory – four stages method**

## Results

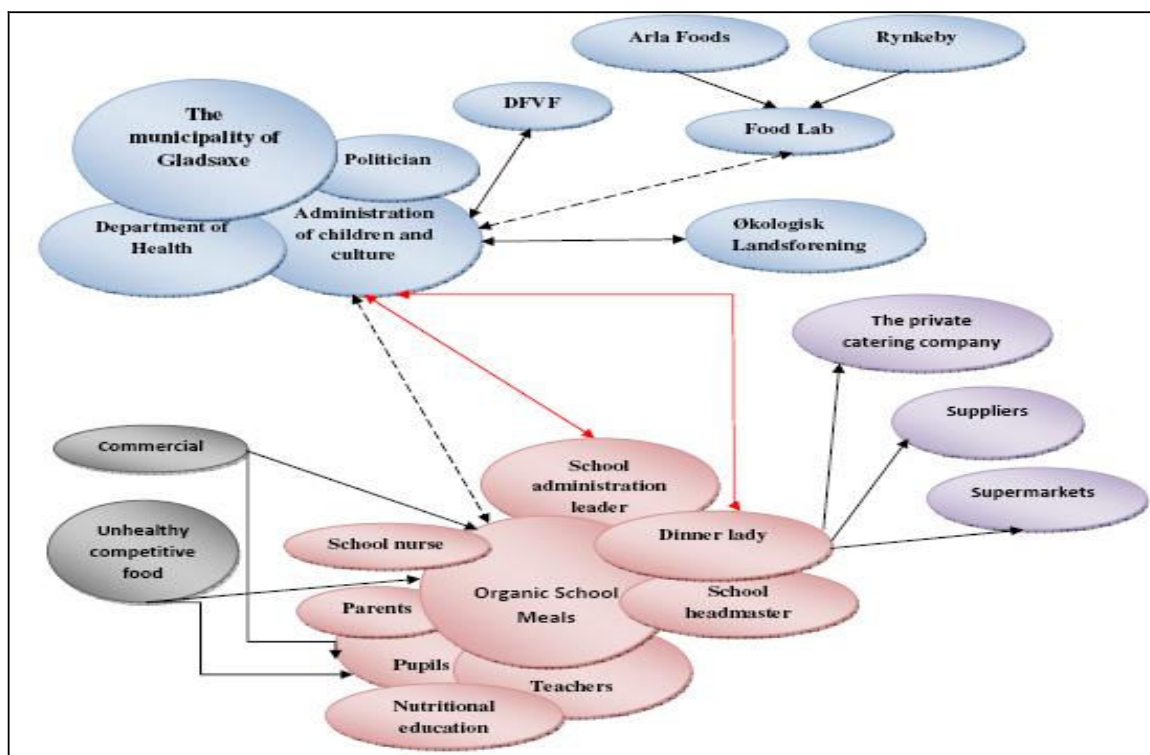
The figures 1,2 and 3 below respectively show the involved actors in the organic school meals programme in Roskilde, Copenhagen and Gladsaxe. It can be seen that there are some differences among these 3 municipalities, regarding the cooperation work of school meals between the municipality and the schools. In table 1 the differences in the performance of the networks are summed up.



**Figure 2: Involved actors in the organic school meals program in Roskilde**



**Figure 3: Involved actors in the organic school meals program in Copenhagen**



**Figure 4: Involved actors in the organic school meals program in Gladsaxe**

**Table 1 Comparison of the organic school meals in three municipalities**

Organic school meals		Roskilde	Copenhagen	Gladsaxe
Policy level	POP	☺	☺	☹
	FNP	☺	☺	☺
School level	Coordinator	☺	-	☺
	Kitchen operator	-	-	☺
	Teachers	☹	☺	☺
	Pupils	☹	☹	☹
	Parents	☹	☹	☹
	Nutritional education	☹	☹	☺
Prepared school meals layout	Public kitchen	-	☺	-
	Catering company	☺	-	-
	School site kitchen	-	-	☺

☺ Effectively involved in the organic school meals programme

☹ Not effectively involved in the organic school meals programme

## Conclusions

The evidence proves that developing and implementing the idea of organic and healthy school meal systems in Denmark is not an easy job. Firstly, the traditional lunchbox has shaped the eating style of children at schools for long time. It is an integral part of the food culture and thus it seems to interfere heavily with the new emerging publically provided school meal systems with “built-in” organic and healthy properties. Meanwhile, the school meals are not at the moment meant to be free of charge, and the organic ingredients involved makes it even more expensive. This mean considerable constraints to the further development of organic an healthy school meals.

In addition the participation in school meal schemes is limited which is a serious threat to their economy and long term survival. So far the government has not allocated any extra budget to the school meal service, and no national guideline for the percentage of organic food in the school food has been set. Unlike neighbouring countries like Sweden and Finland there is very little regulation of school food provision in Denmark and therefore it is not surprising that the study shows the actor network evolving around organic and healthy school meals in Denmark are very different. There is no one architechture of network in the studied cases, Thus the study suggest that the emerging organic school food and nutrition concepts has the characteristic of being a technology and that this technology is in a state of shaping but not fully translated. The study suggest that the evolving attempts to develop and conceptualise organic and healthy school food can be viewed as an attempt to implement a new technology. Important elements in this process include knowledge, power, actors, artefacts, systems of signs and science.

As argued in actor network theory elements in network come to make sense only trough their relation with others. Another feature of the network is that different actors allocate different meanings to the school food technology and that the different actors compete to translate the technology into such ideas as “health” or “sustainability”. Since there is no full agreement among actors in the networks the shaping of the “technology” takes place during the innovation and development process. Also results indicate that the school food environment – the field in which the technology is being implemented in is far from being given or fixed. Besides being influenced by the environment the actor network seems also to create the environment – it seems to be enacted /performed by the network.

## Acknowledgments

The author would like to thank Mads Peter Klink Engelhardt, Astrid Dahl, Teresa Dominicussen and Dorte Arbor for the interviews.

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## Introduction

In order to prevent children and young people from becoming overweight or obese, it is imperative to promote healthier eating patterns. So it is necessary to develop and implement effective strategies that can influence the eating and lifestyle habits of young people. Healthy school meal programme is considered to be an effective strategy to promote such changes and increasingly such strategies become embedded organic supply policies and strategies that pursue environmental goals. The purpose of this paper is to take a closer look into the current status of the organic school meal programme in Denmark. Three municipalities which are involved in the organic school meal programme are chosen as the study subjects.

## Methodology

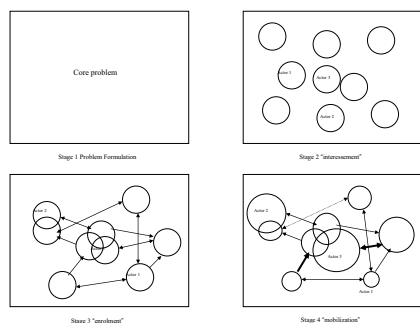
This study is based on the individual interviews with three municipalities on Zealand of Denmark, which have public organic food procurement policies or food and nutrition policy.

**POP:** Public Organic Food Procurement Policy refers to a policy, in which a specified amount of specified foods are expected to be organic, which are practiced in public organizations offering food.

**FNP:** Food & Nutrition Policy is a set of written and adopted principles that aims to fulfill nutritional needs of pupils at schools and ensure availability and accessibility of healthy foods.

## Theoretical foundation

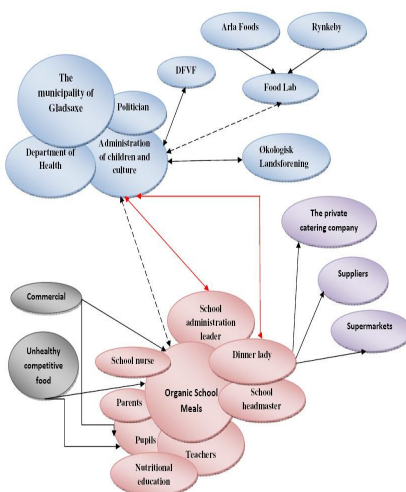
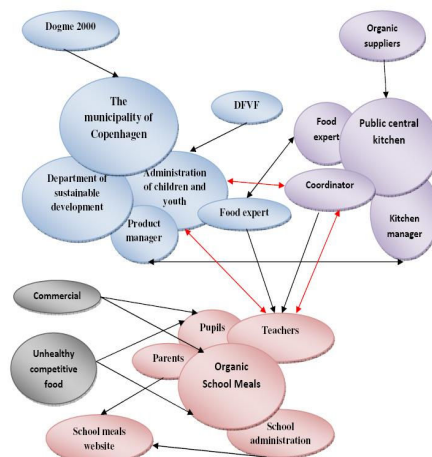
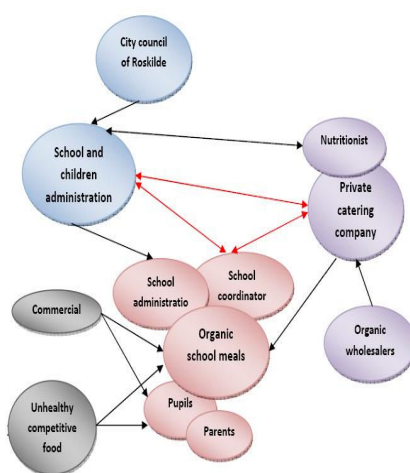
In the context of this paper the provision of food and nutrition at school can be understood as a technology. However there is far from agreement of what this technology does and in fact different stakeholder compete in order to decide what this technology does and should do. School food has become "boundary object" which is explained in detail in the actor-network theory (ANT).



ANT argues that things for instance school food, perform and enact through actors in a network and that it is making sense only through the interaction with other object in the network. ANT is here being applied in the analysis of the four interviews.

## Results

Figure 1, 2, and 3 respectively show the involved actors in the organic school meals programme in Roskilde, Copenhagen and Gladsaxe. It can be seen that there are some differences among these 3 municipalities, regarding the cooperation work of school meals between the municipality and the schools. However, they also have some similarities. As the table shows, the difference and similarities of the organic school meals in 3 municipalities.



Organic school meals		Roskilde	København	Gladsaxe
Policy level	POP	☹	☹	☹
	FNP	☹	☹	☹
School level	Coordinator	☹	•	☹
	Kitchen operator	•	•	☹
	Teachers	☹	☹	☹
	Pupils	☹	☹	☹
	Parents	☹	☹	☹
	Nutritional education	☹	☹	☹
Prepared school meals layout	Public kitchen	•	☹	•
	Catering company	☹	•	•
	School site kitchen	•	•	☹

☹ Effectively involved in the organic school meals program

☹ Not effectively involved in the organic school meals program

## Discussion

The evidence proves that providing organic school meals in Denmark is a complicate process. Firstly, the traditional lunchbox has shaped the eating style of children at schools for long time. This is based on the food culture in a country. Meanwhile, the school meals are not free of charge, and the organic ingredients involved make it more expensive. So there are a low amount of pupils choosing school meals. Secondly, so far the government has not given any extra budget to the school meal service, and no national guideline for the percentage of organic food in the school food has been set. So in the respect the public organic procurement policy can be extended by aspiration of the society. Last but not least, providing only organic food to school children is far from enough. Encouraging our children to establish healthy eating habits will need long-term effort to complete and be successful.



# **Does organic food procurement in the public act as driver for creation of public food systems – a loosely coupled systems approach analysis of the case of organic conversion in Danish municipalities**

Mikkelsen BE<sup>1</sup>.

Key words: public food systems, organic public procurement, organic foods, organic conversion, public foodservice

## **Abstract**

*Organic food and farming has been an integrated part of agricultural policies in most European countries for many years. In some cases this priority has resulted in strategies aimed at increasing public procurement of organic foods. Public service provision in schools, institutions and kindergartens include consumption of huge amounts of foods. This paper analyses three Danish local government cases of introduction of organic foods in public foodservice, in order to study what kind of influence this has had on the governance of public foods. The findings suggest that organic food policies seem to contribute to the rethinking of public food provision and the creation of virtual public food systems. The findings also suggest that these developments have been fuelled constraints in the foodservice supply chain and that this in turn has forced administrators to see food procurement in a new horizontal perspective in which different types of public foodservice is looked upon as a whole. The findings suggest that the emerging organic food policies have contributed to a modernization in the way that public food is governed and that organic foods have created a sense of public political consumption. The paper discusses the opportunities that this development creates for the organic food sector and in particular whether the development can open up the public sector further as a sales channel for organic food.*

## **Introduction**

Traditionally public food service has been regarded as a necessary but simple add-on to other public services such as hospital treatment, day care in kindergartens, education at schools etc. Morgan and Sonnino (2007) have characterised it as a "mundane activity in prosaic settings" and in general public food is associated with low status and characteristics such as low pay, high labour turnover, high rates of dismissals, accidents, and absenteeism (Lucas 1996; Hurst 1997, Gabriel, 1988). Food service has traditionally been looked upon as a part of "something else" and as Mintzberg (1983) argues, for organisations such as hospitals, nursing homes or schools the task of cooking food is not being regarded as the core competence.

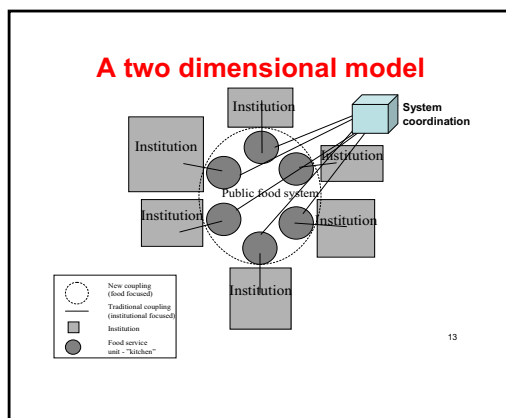
However the increasing attention given to institutional settings approaches (Whitelaw et al 2001) to promotion of healthy eating, as well as the call for more sustainable public food consumption has created a considerable pressure on this sector to innovate and modernise. In a number of countries sustainability policies have been

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<sup>1</sup> National Food Institute, Danish Technical University

launched aiming at increasing the volume of organic foods in the public (Rech 2002, Rimmington 2003). The aim of this paper is to analyse Danish cases of organic conversion in public foodservice in order to determine what kind of influence organic conversion has had on the governance of public foods. In addition the paper investigates the fabric of “systems” that public food seems to be embedded in and discusses how public procurement of organic foods can take advantage of the systems way of thinking. The paper uses the notion of *loosely coupled systems* (Weick (1976) to portray the idea that the entities in the public food environment are part of “systems”. The term is often used in design of software systems to underpin the necessity of being able to integrate incompatible system technologies as well as the ability to disassemble the functional components again. For loosely coupled systems to work there must be a shared common language that ensures messages retain a consistent meaning across participating units of the system. This approach specifically seeks to increase flexibility in adding or replacing units and changing operations within individual units. In the life of organizations there are many examples of loosely coupled systems, projects being a good example.

**Figure 1. Organic procurement –from a traditional systemic view of food service to a public food systems view.** The figure illustrates the ties from food service units to their “parent” institutions. The public food systems that seems to emerge from the organic conversion projects can be regarded as loosely coupled systems. In traditional public service provision institutional architecture, food service is a part of another institution such as a school, a hospital, a nursing home etc. This creates a twin partner tie between kitchen (a traditional view) and the parent organisation. In emerging public food systems ties are created between food service units (“kitchens”), which shape the boundaries of a “new system” – a public food system.



## Materials and methods

The study is based on cases of organic food procurement policies in Copenhagen County, the City of Copenhagen and the Western Zealand County in Denmark. All projects were carried out from 1996 and onwards and were evaluated using external consultants and research partners. These processes informed the current study. In all three cases three types of actors in the public food environment functioned as the main informants: local government coordinators of organic conversion projects, local



government procurement officials and local institutional food service managers. The Western Zealand County included 12 hospitals and institutions including worksite dining facilities at the institutions (Western Zealand County, 2004). In the city of Copenhagen municipal case, the study was informed by in depth studies at 3 nursing homes and by the evaluation/monitoring process of the overall conversion project in 1200 municipal food service units. The case included all the different types of food service that the city of Copenhagen operates i.e. schools, kindergartens, nursing homes, worksites catering, community centre catering as well as other institutional catering units. In the Copenhagen County case the study included 12 institutions including hospitals, nursing homes and institutions for clients with special handicaps or needs.

The data was produced by means of semi-structured interviews as well as by means of questionnaires. In addition, seminars involving catering kitchen managers and purchasers were used to inform the study as well as group interviews and explorative dialogue. A participatory approach was used in which external “lectures” by suppliers of organic foods and specialist in organic catering consultants was used. Reports from seminars and meetings were used in the subsequent analysis as well as documents and minutes from administrative units, political committees etc. also delivered important information in the process. In the case of Copenhagen County some of the interviews with stakeholders were carried out by telephone using an open-ended interview guide, which had been sent to the interviewees beforehand. Data collection were structured around the following themes: the outcome and effects of organic conversion, product-related as well as organisational barriers to implementation, workload and operational procedures, food quality and supply aspects of organic food supply, procurement contracts, quality requirements for organic food and procurement policies, characteristics of suppliers and supply situation of product groups and product chain networking. The results from interviews were coded and refined in a series of steps, resulting in an identification of themes, issues and statements that were common to most stakeholders.

## **Results**

The results of the interviews demonstrated the complex nature of organic conversion in public food service. Unlike the process taking place among private consumers in domestic environments the retail sector, the decision making and procurement in public food environments follow a set of “hard to change” professional specific rules and norms that seems to be deeply embedded in organisational routines and procedures. The data from all cases identify a number of obstacles and constraints to organic procurement, but in addition it also shows a pattern of solutions to these challenges.

Foodservice kitchen informants points to the lack of networks with other kitchens in order to exchange practical conversion experiences. They also point out the lack of smoothly operating organic supply chains, the lack of supply chain innovation and the lack of better in-service training opportunities for involved actors as barriers.

Municipal coordinators point to the fact that the performance of the organic food service supply is seen as sub optimal. They point to the fact that many of the conversion related tasks seems to be the same across kitchen boundaries. Thus municipal coordinators expect the foodservice units to be able to benefit substantially from central coordination. Such coordination for loosely coupled entities could according to municipal coordinators involve conversion project fundraising, liaison with

the political level, project management assistance and can help in securing the minimum critical masses of organic food across kitchen boundaries. It could help in coordination of food procurement, elaboration of product specifications and elaboration of procurement contracts.

## Discussion

The findings suggest that organic conversion in Denmark has contributed in creating the outlines of public food systems and that these new arrays represent a promising potential field for further penetration of organic foods. Increasingly the different types of public food provision seems to be treated as “systems” (Morgan & Soninno, 2007; Peckham & Petts, 2003) and in cities like Rome, London and Paris public procurement schemes for such systems are emerging and aiming at strengthening sustainability issues in food procurement contracts. This seem to underpin the potential role that public food procurement entities can play as political consumers. In Copenhagen the task of introducing organic public procurement in the approximately 1200 catering units has recently been established as a “systems coordination” in the form of a central municipal secretariat.

Results indicate that the traditional view of food services, as consisting of fragmented units, seems to be replaced by a view in which public food issues increasingly are being handled together “under one roof”. It is recognised that there is obvious cohesion between food service units but also that these systems needs governance if political priorities regarding organic procurement and healthy nutrition is to be carried out. The public food entities seem to be needing “glue” that can increase cohesion and such glue can be municipalities thinking horizontally across the food local area and consider food service provision such as that taking place in kindergarten, school, institutions, hospitals etc. as a common field of attention. Municipalities can supply glue by appointing public food coordinators with the necessary nutrition, health and sustainability competence.

The new emerging view of public food service is paralleled by a development where municipalities are exploring the frontiers of public service and health care provision by engaging in new types of organisational constructions. Hence public private partnerships and other hybrid constructs with both private and public money are emerging. Common to these trends are that they require a move from the traditional catering production unit approach to a systems approach. This is due to the fact that for both health and sustainability objectives to be implemented successfully, a cooperation that stretches across organisational boundaries is crucial.

The notion of a loosely coupled system seems to be a convenient framework to explain the way in which food service units are linked to their parent organization, but the notion can also help explain the way in which different food service units seem to be linking to each other horizontally as a result of the change processes taking place. For instance a loosely coupling allows local governments to redesign the way food is provided by substituting in house food service production with outsourced food provision. Similarly an in-house food service unit can be changed to provide food for several institutions. This has the potential to influence innovation and user driven change processes such as processes related to demands for food quality, sustainability and healthy eating.

In conclusion it can be stated that public organic procurement policies in fact have resulted in the outline of new coherent entities that seem to be coupled though the fact that they seem to be faced with common challenges. These entities seem to behave as systems and it seems that the metaphor of loosely coupling between the subunits (food service units) describes the features of such systems well. Further such systems seem to make them selves available for central coordination although they also seem to be able to coordinate themselves through decentralised and voluntary cooperation.

By using a loosely coupling approach it becomes clear that the idea of public food systems rely on self organising and self agency and that they have the potential to create innovative solutions due to being interdisciplinary and their ability to provide sensitive environment sensing mechanisms. Therefore they will rely on competent and well-educated managers and they resemble projects in the fact that they have no line of command and cannot be classified as traditional large, tightly run organizations.

Although the study suggest that the idea of public food systems is emerging a limitation is that it primarily focuses on a “backstage” B2B understanding. In such an understanding procurement takes place in an intra organisational food service environment and excludes the user and consumer perspective. Thus future research should also include the “front stage dimension”. For instance it should ask if students in school food systems are part of a public food system. Or similar whether elderly at the nursing homes are a part of the system. Can these actors be said to be important in creating a more powerful alliance between professionals and users and thus relate to the idea of food citizen ship?

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# Overcoming constraints and barriers for organic public procurement – Applying the theory of loosely coupled systems to the case of organic conversion in Danish municipalities

**MIKKELSEN BE**

**Key words:** public food systems, organic public procurement, organic foods, organic conversion, public foodservice

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## Abstract

### Abstract

Organic food and farming has been an integrated part of agricultural policies in most European countries for many years. In some cases this priority has resulted in strategies aimed at increasing public procurement of organic foods. Public service provision in schools, institutions and kindergartens include consumption of huge amounts of foods. This paper analyses three Danish local government cases of introduction of organic foods in public foodservice in order to study what kind of influence this has had on the governance of public foods. The findings suggest that organic food policies seem to result in a rethinking of public food provision and the creation of virtual public food systems. The findings also suggest that these developments have been fuelled by a sub optimal functioning of the foodservice supply chain and that this in turn has forced administrators to see food procurement in a new horizontal perspective in which different types of public foodservice is looked upon as a whole. The findings suggest that the emerging organic food policies have modernised the way in which public food is governed and that organic foods have created a sense of public political consumption. The paper discusses the opportunities that this development creates for the organic food sector and in particular whether the development can open up further the public as a sales channel for organic food.

## Aim:

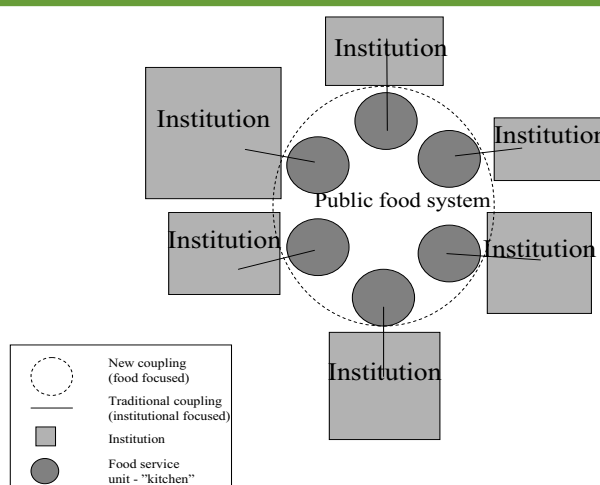
to study if introduction of organic foods and other sustainability policies has changed the traditional fragmented food service provision more coherent entities that can be analysed from a social systems perspective

## Methods

The study is based on cases of organic food procurement policies in Copenhagen County, the City of Copenhagen and the Western Zealand County in Denmark. All projects were carried out from 1996 and onwards and were evaluated using external consultants and research partners. These processes informed the current study. In all three cases three types of actors in the public food environment functioned as the main informants: local government coordinators of organic conversion projects, local government procurement officials and local institutional food service managers. The Western Zealand County included 12 hospitals and institutions including worksite dining facilities at the institutions (Western Zealand County, 2004). In the city of Copenhagen municipal case the study was informed by in depth studies at 3 nursing homes and by the evaluation/monitoring process of the overall conversion project in 1200 municipal food service units. The case included all the different types of food service that the city of Copenhagen operates i.e. schools, kindergartens, nursing homes, worksites catering, community centre catering as well as other institutional catering units. In the Copenhagen County case the study included 12 institutions including hospitals, nursing homes and institutions for clients with special handicaps or needs.

The data was produced by means of semi-structured interviews as well as by means of questionnaires. In addition, seminars involving catering kitchen managers and purchasers were used to inform the study as well as group interviews and explorative dialogue.

## Results



The results of the interviews in all cases clearly demonstrated the complex nature of organic conversion in public food service. Unlike the process taking place among private consumers in the retail sector, the decision making process in public food environments follow a set totally different rules and norms. The data from all cases identify a number of obstacles and constraints to organic procurement, but in addition it also shows a pattern of solutions to these challenges. Findings from interviews with kitchen level managers showed that networks with other kitchens were seen as important in order to exchange practical conversion experiences. Kitchen level managers also underpinned the need for organic supply chains to operate more smoothly and that supply chains should drive innovation in order to secure supply of organic food in right quantity and convenience level. Managers were calling for improved assistance to help implementation of organic foods and for better in-service training opportunities.

Main findings from interviews county /municipal conversion project officials were that most conversion related tasks were seen as being the same across kitchen boundaries. In general kitchens were regarded as being able to benefit substantially from central coordination. Especially the challenges related to conversion project fund raising, liaison with the political level as well as to project management activities were underpinned as important tasks for municipal/county level coordination. Project officials also stressed the need for central coordination in order to secure minimum critical masses of organic food across kitchen boundaries. Findings from interviews with county /municipal level procurement officials were that in general the performance of organic food service supply were seen as sub optimal. Practical coordination of food procurement tasks at municipal level necessary as well as elaboration of product specifications and procurement contracts were seen as important tasks that should be centrally coordinated across kitchen boundaries.

## Discussion

The findings suggest that organic conversion in Denmark have contributed in creating a notion of food systems and that these new arrays present a field for further penetration of organic foods. The application of systems approach to public food is also found elsewhere across Europe (Morgan & Soninno, 2007; Peckham & Petts, 2003). In cities like Rome, London and Paris public procurement schemes are emerging aiming at building in sustainability issue in food procurement contracts and thus underpinning the importance of public procurement in a political consumerism context. In some cities healthy eating and sustainability issues are being linked due to the apparent interaction between them (Mikkelsen et al 2006).

The traditional view of food service as consisting of fragmented units has been replaced by a view in which public food issues is being handled together "under one hat", and this reorientation has created a sense of cohesion between food service units. New public food systems with a minimum critical mass has been created and a new type of governance of this area seem to be emerging. This new emerging view of public food service is paralleled by a development where municipalities are exploring the frontiers of public service and health care provision by engaging in new types of organisational constructions. Hence public private partnerships and other hybrid constructs with both private and public money are emerging. Common to these trends are that they require a move from the traditional catering production unit approach to a systems approach. This is due to the fact that for both health and sustainability



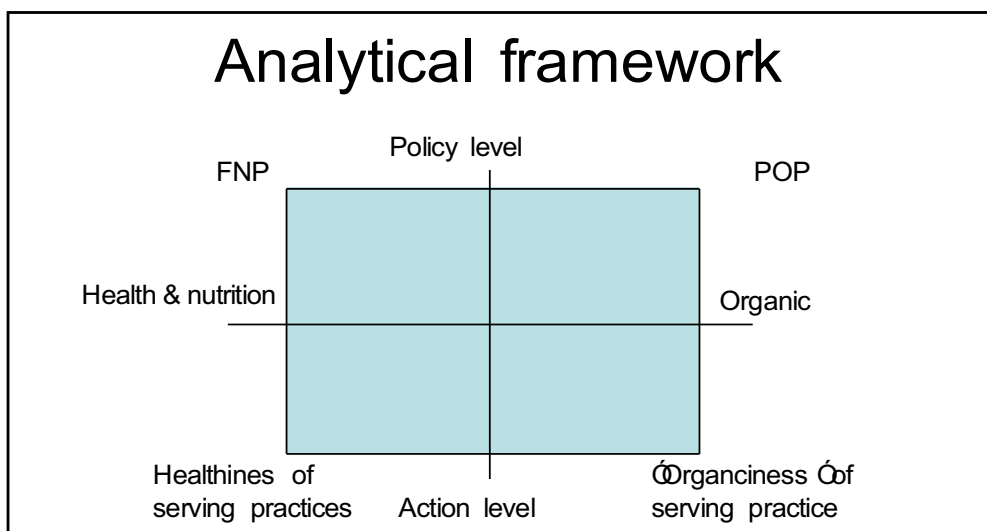
# **Pilot: testing a dietary assessment methodology to study whether organic procurement strategies in schools are associated with the eating patterns of students.**

Mikkelsen, B.E<sup>1</sup> & Hansen, M.<sup>2</sup>

## **Introduction**

There is considerable interest in strategies that can improve eating habits among school children and “healthy eating interventions” in school settings are being developed in many countries. At the same time, the school has become one of the preferred settings for public organic procurement policies. These are known to foster change in nutrition policy and menu composition, which in turn creates an interesting platform for further investigation. Evidence has already shown that caterers serving organic food also serve healthier meals than their non organic counterparts (Mikkelsen et al., 2006), but it is still to be proven whether organic policies in school settings promote healthier eating on an individual intake basis. A variety of different techniques for measurement of habitual dietary intake are available. However, most of these methods demand a certain literacy level and cognitive development which makes them unsuitable for young children (Baranowski & Domel, 1994). Suitable methods must therefore be developed.

The study hypothesis is that there is an association between both policy and praxis as well as between “healthiness” and “organicness” as illustrated in figure 1.



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<sup>2</sup> same as above

**Figure 1. Hypothetical two dimensional relation between** policy and praxis (vertical) and between “healthiness” and “organicness” (horizontal)

### **Aim:**

The main objective is to test the hypothesis that organic procurement policies in school food systems directly or indirectly act as a driver for healthier eating among school children.

### **Materials and methods**

A compilation of material has been retrieved in order to provide broader insight into the background of the study, a choice of relevant study design and considerations have been made in relation to using children as respondents. Through searching literature the two most prominent questionnaires in Europe, that use children as respondents, Pro Children and Health behaviour in School-aged Children (HBSC), were selected and used as inspiration due to their focus on school children and to some extent their diet. Healthier eating is defined as compliance with the Danish Dietary Recommendations (figure 2). Because the study focuses solely on eating habits, no reference is made to the eighth dietary recommendation relating to physical activity.

- Eat fruit and vegetables – 6 portions per day
- Eat fish and fish products – several times a week
- Eat potatoes, rice or pasta, and wholemeal bread – every day
- Limit intake of sugar – particularly from soft drinks, confectionary and cakes
- Eat less fat – particularly fats from meat and dairy products
- Eat a varied diet – and maintain a healthy body weight
- Drink water when you are thirsty
- Engage in physical activity – at least 30 minutes per day

### **Figure 2 The Danish Dietary Recommendations**

Where it was possible, questions were taken directly from above mentioned and already validated questionnaires, although it was necessary to add and adjust some questions to cover eating habits more broadly. The self administered questionnaire in this study therefore consists of a diet recall section, a FFQ section and a third section designed specifically for the study in order to test the children’s knowledge and preference for fruit and vegetables. After construction, the questionnaire was tested by an expert panel and through Think Aloud Interviews, after which adjustments were integrated in the final questionnaire.

### **Results**

To convert amounts eaten into household measures (as necessary in a recall section) and in order to estimate average frequency for intake (as in a FFQ), the ability to think in abstracts must be present. Children in 6th grade have been chosen as respondents, as in Denmark these children are usually between twelve and thirteen years old and

therefore expected to have reached the Formal Operational Stage and therefore should be capable of understanding hypothetical questions and answer options (Woolfolks, 2004). Though, the pre-test revealed that children in this age group still faced problems. For example children tend to drink water out of 500 ml bottles and had difficulties converting this into “glasses”. A short explanation was therefore added, explaining that one bottle corresponds to 2 ½ “glasses”.

Also unnecessary explanations caused confusion for the children, an example of this is the validated Pro Children question “How often do you usually eat fresh fruit”. For children the word fresh pertains to how long the fruit has been in the fruit bowl at home, not to whether it is prepared in any way. This was exemplified in the test when one of the boys said “I don’t always know how fresh it is, but I don’t want to eat it if it is too old”. Others just asked while filling out the questionnaire “they just mean normal fruit, right?”, indicating that their term for fresh fruit is just “fruit” as illustrated in figure 3. Which emphasises that words and terms must be carefully considered when using children as respondents.

The test indicated that respondents of this age could retain focus and concentration for the time it takes to complete the questionnaire.

**D5. How often do you usually eat fresh fruit?** *(Tick only one answer please)*

- ☐ Never
- ☐ Less than one day per week
- ☐ One day per week
- ☐ 2-4 days a week
- ☐ 5-6 days a week
- ☐ Every day, once a day
- ☐ Every day, twice a day
- ☐ Every day, more than twice a day

**Figure 3: Questions that caused confusion.**

## Conclusions

If special attention is given to literacy skills and cognitive development, children in Danish 6th grade classes can be used as respondents in the study. A Cross-Sectional study has been judged as a sufficient method to investigate how organic procurement policies affect children’s eating habits. And a Self-Administered Questionnaire completed in the classroom during school hours has been chosen as the most appropriate assessment method. The questionnaire consists of a variation of a 24-hour Recall study, a Food Frequency Questionnaire and a study specific method can be combined to cover children’s overall eating habits.



In the final analysis of this study, it is important to be able to adjust for the socioeconomic status of the respondents and therefore to obtain background information about their families. Research has shown that children have problems providing this kind of information; children as old as fifteen have great difficulty answering specific questions about others than themselves, including their parents, and should not be required to do so (Olsen, 2006). For this reason it was necessary to develop a brief questionnaire for the parents containing background questions referring to socioeconomic status (household income, parental educational level, parental occupation and urbanization). The questionnaire was given to the parents together with the consent form.

Representative 6th grade classes at schools with organic procurement policies can be selected by cluster sampling and matched with corresponding classes at schools without organic policies, after which the results can be compared.

## **Acknowledgements**

This paper is a slightly different version of the poster “Can organic procurement policies at school promote healthier eating patterns for schoolchildren? – report on a pilot test of a dietary assessment methodology” by Bent Egberg Mikkelsen & Mette Hansen, from the iPOPYP Modena poster exhibition

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# Can organic procurement policies at school promote healthier eating patterns for schoolchildren? – report on a pilot test of a dietary assessment methodology

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## Introduction

There is considerable interest in strategies that can improve eating habits among school children and “healthy eating interventions” in school settings are being developed in many countries. At the same time, school has become one of the preferred settings for public organic procurement policies (POP). These are known to foster change in nutrition policy and menu composition, which in turn creates an interesting platform for further investigation. Evidence has already shown that caterers serving organic food also serve healthier meals than their non organic counterparts, but it is still to be proven whether organic policies in school settings promote healthier eating on an individual intake basis. A variety of different techniques for measurement of habitual dietary intake are available. However, most of these methods demand a certain literacy level and cognitive development which makes them unsuitable for young children. Suitable methods must therefore be developed.

## Aim:

The main objective is to test the hypothesis that organic procurement policies in school food systems directly or indirectly act as a driver for healthier eating among school children.

## Methods

A compilation of material have been retrieved in order to provide broader insight into the background of the study, choice of relevant study design and the considerations to be made in relation to using children as respondents. From the results of the literature search the two most prominent questionnaires in Europe that uses children as respondents, Pro Children and Health behaviour in School-aged Children (HBSC) have been selected and used as inspiration due to their focus on school children and to some extent their diet. Where it has been possible, questions are taken directly from these already validated questionnaires, although it has been necessary to add and adjust the questions to cover eating habits more broadly. The self administered questionnaire in this study therefore consists of a diet recall section, a FFQ section and a third section designed specifically for the study in order to test the children's knowledge and preference for fruit and vegetables. After construction, the questionnaire was tested by an expert panel and Think Aloud Interviews, after which adjustment was integrated in the final questionnaire.

## Results

To convert amounts eaten into household measures (as necessary in a recall section) and in order to estimate average frequency for intake (as in a FFQ), the ability to think in abstracts must be present. Children in 6th grade have been chosen as respondents, as in Denmark these children are usually between twelve and thirteen years old and therefore expected to have reached the *Formal Operational Stage* and therefore should be capable of understanding hypothetical questions and answer options. Though, the pre-test revealed that children in this age group still faced problems. For example children tend to drink water out of 500 ml bottles and had difficulties converting this into “glasses”. A short explanation has been added, explaining that one bottle corresponds to 2 ½ “glasses”.

D5. How often do you usually eat fresh fruit? (Tick only one answer please)

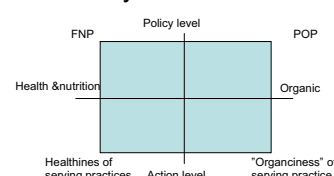
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Fig. 1: Question that caused confusion.

Also unnecessary explanations caused confusion for the children, an example of this is the validated Pro Children question “How often do you usually eat fresh fruit”. For children the word *fresh* pertains to how long the fruit has been in the fruit bowl at home, not to whether it is prepared in any way. This was exemplified in the test when one of the boys said “I don't always know how fresh it is, but I don't want to eat it if it is too old”. Others just asked while filling out the questionnaire “they just mean normal fruit, right?”, indicating that their term for fresh fruit is just “fruit”. See fig. 1. Emphasising that words and terms must be carefully considered when using children as respondents.

The test indicated that respondents of this age can retain focus and concentration for the time it takes to complete the questionnaire.

## Analytical framework



## Conclusions

If special attention is given to literacy skills and cognitive development, children in Danish 6th grade classes can be used as respondents in the study. A Cross-Sectional study has been judged a sufficient method to investigate how organic procurement policies affect children's eating habits. A variation of a 24-hour Recall study, a Food Frequency Questionnaire and a study specific method can be combined to cover children's overall eating habits. Representative 6th grade classes at schools with organic procurement policies can be selected by cluster sampling and matched with corresponding classes at schools without organic policies, after which the results can be compared.

## Theory Based Promotion of Organic Food in Public Catering

Mikkola, M.<sup>1</sup> & Mikkelsen, B.E.<sup>2</sup>

Key words: organic food, public catering, sustainable public catering system

### Abstract

*The paper focuses on public catering as a significant service provider in the modern society and a potential large scale user of organic food. In order to argue for the use of organic food by public catering, the traditional nutrition oriented public catering, as 'what is', is reframed and repositioned as sustainable public catering system, as 'what could be', responsible in mediating the wellbeing of both bio-physical environment and individual consumers. The development towards sustainable public catering systems is examined by analysing Danish and Finnish public catering cases, which make visible the role of economy, law, science, politics and education in contextual networks governing public catering. The results suggest increased and more aligned activities of the subsystemic networks as a substantial social challenge, in rendering public catering organisations 'centres of sustainability' in everyday life of (post)modern citizens.*

### Introduction

Today, public catering in Europe supports everyday activities at e.g. schools, kindergartens, hospitals, old age homes, day-care centres and work place canteens by serving meals for a large number of citizens. The historical development of public catering in the Nordic countries is suggested to be based on the rise of modernity and the introduction of social welfare services, whereby meals are served either free or against payment to customers (Løes et al. 2008, Mikkola 2008). Country specific public catering operations are often characterised by dietary adequacy, cost efficiency and highly regulated processes (Bocchi et al. 2008, Mikkola 2008). Recently, generic sustainability trend has become visible also as catering for sustainability, whereby local and organic, and even local organic food is used in public meal preparation, exemplified by Italian, British, Danish, Swedish and Finnish public catering cases

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(Morgan and Sonnino 2005, Mikkelsen et al. 2007, Bocchi 2008, Mikkola 2008). Basically public catering holds the potential to become a promising sales channel for organic foods due to its size. However, arguing for organic conversion within established conventional public catering seems often difficult. In order to develop a theoretically based vision for the use of organic food, the theory of social systems and ecological communication (Luhmann 1989) was applied to reframe and reposition conventional public catering organisations as sustainable public catering systems, communicating about and using organic food. Furthermore, the theory was applied in exploring the path towards sustainability by public catering organisations in two Nordic countries. Typical Danish and Finnish public catering cases are analysed in terms of activities and interplay of societal subsystems, as 'what is', and contrasted with ideal subsystemic alignment as 'what could be' (Schofield 2000) in terms of the use of organic food. The paper suggests increased alignment in governance of public catering by sub-systemic networks to increase the use of organic food.

### **Theory of ecological communication applied in public catering**

Public catering operates in a complex modern society, theorised by Luhmann (1989) in highly constitutive and structured way. Public catering can be seen as a layered network of normative expectations by organisations, firms and individual workers and consumers. The network depends for its existence both on the bio-physical environment as source of food and the environment of individuals, forming the networks of governance and customers. As a system, public catering needs to learn more about its two environments, in order to adapt to and to avoid environmental problems, concretised e.g. as pollution and obesity. The language used in public catering is critical in constructing the environmental contact surfaces and mediation between the wellbeing of the environment and eaters.

The modern society is seen to consist of foundational social subsystems, including economy, law, science, politics, religion and education. These subsystems function as societal 'operators' and their mutual ecological communication mediates the continuity of the environment-dependent social system into unlimited future. In this paper, subsystemic activities of country specific typical public catering cases are described and differences between the present and ideal subsystemic alignment are identified as developmental orientations. These typical cases represent extensive empirical

material from both Denmark and Finland and time period of more than five years (Mikkelsen et al. 2007, Mikkola 2008).

## **Organic food in current public catering: Danish and Finnish cases**

### **Danish cases**

**Economy:** Public food procurement for schools represents only a minor share in overall municipal spending. Some emerging school food provision initiatives focus mostly on organic foods with limited price premium such as milk, bread, potatoes, and vegetables. Organic foods are regularly bought in a number of municipalities such as the members of the Dogme 2000 network and in Western Zealand, mainly with limited cost increase; customers may pay part of the price of the meal..

**Law and politics:** Food provision for pupils is not a statutory requirement in Denmark. However, a growing number of municipalities and schools take on this type of service provision on a voluntary basis. There are also a number of policy statements for municipalities and schools to adopt food and nutrition policies and funding programmes to fuel innovation in voluntary food provision at schools, in effect from 2000 to 2007, resulting in more than 2000 institutions having experiences of implementation of school foodservice.

**Science:** Environmental research results about ground water pollution by nitrates from conventional agriculture supported the use of organic foods by Copenhagen municipality. Rather extensive research in organic food has been supported by public government funding, and obesity problems and public procurement of organic food has recently come into focus of the research community.

**Education:** Food and nutrition at schools is a part of the national primary and secondary education curriculum in two subjects: home economics and health. In addition new emerging school food provision policies in some cases aim to link nutrition education to school foodservice.

### **Finnish cases**

**Economy:** Food for statutory public catering represents a minor share in municipal costs. However, these regular costs are under strict budget discipline. Price premium of organic food often limits the use of organic potatoes, vegetables and milk in public catering. Part of the municipalities use local and organic food, thematic organic meals and run ecological day-care centres and schools. Available funding and

considerations about organic food effect on future development.

**Law and politics:** Free and nutritionally balanced warm meal is a statutory part of school activities. The public procurement of organic food takes place as a technical specification, but political orientation for conversion is strong mainly locally. There are policies, often loosely followed, for local food as well as sustainable development supporting also the use of organic food.

**Science:** Organic food is renowned for not having residues and local organic food for not entailing excessive transportation. Organic food is both suspected for problems in nutritional value and expected to offer higher biological quality. Domestic, local and organic food are generally seen as ecological, but caterers look for better understanding of the environmental and nutritional character of organic food. Obesity problem is gaining increasingly attention.

**Education:** School meals are inserted in the new primary and secondary education curriculum, aiming at integration of school meals with subjects like home economics, health education and biology.

### **Case analysis in terms of sustainable public catering systems**

Subsystemic activities and alignment in the use of organic food in public catering were not presently ideal in either Denmark or Finland. In Denmark, economy adapted to the premium prices of organic, but the Danish public catering in schools was based on current political initiatives and funding as well as partly payments of customers. Danish understanding of the organic quality did not exhibit uncertainty, and in education there were emerging links between subject education and school foodservice. In Finland free school meals had a statutory position but there was a rather patchy initiative-based development in organic school foodservice. Policy for sustainability was approved, but implemented more or less coherently in terms of organic food. The quality of organic food was understood rather ambiguously, including logistic questions, highlighted in the concept of local food. Education in Finland was also after more integrative approaches connecting subjects and school meal system both theoretically and practically. Public catering in both countries had shortcomings in particular subsystemic activities and inadequate subsystemic alignment, in need of further development towards sustainable public catering systems.

## Concluding remarks: towards sustainable public catering systems

Public catering as 'what is' was reframed and repositioned as a sustainable public catering system, as 'what could be'. Public catering was identified to need development both in subsystemic activities and their stronger mutual alignment, whereby concerted efforts by subsystems of economy, law, science, politics and education could exert 'push' towards sustainable public catering systems. Clearly the implementation of sustainable public catering systems means extensive communication struggles within and between subsystemic networks. The theoretically derived concept of sustainable public catering systems as 'centres of sustainability' in everyday life is able to offer new vision and orientation for developmental efforts for public catering organisations.

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# Theory Based Promotion of Organic Food in Public Catering

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Key words: organic food, public catering, sustainable public catering system

## Introduction

Today, public catering in Europe supports everyday activities at e.g. schools, kindergartens, hospitals, old age homes, day-care centres and work place canteens by serving meals for a large number of citizens. Country specific public catering operations are often characterised by dietary adequacy, cost efficiency and highly regulated processes (Bocchi et al. 2008, Mikkola 2008). Recently, generic sustainability trend has become visible also as catering for sustainability, whereby local and organic, and even local organic food is used in public meal preparation (Morgan and Sonnino 2005, Mikkelsen et al. 2007, Bocchi 2008, Mikkola 2008). Basically public catering holds the potential to become a promising sales channel for organic foods due to its size. However, arguing for organic conversion within established conventional public catering seems often difficult. Using theory of ecological communication by Luhmann (1989) public catering can be seen to develop as subsystemic interplay of economy, law and politics, science and education, and to need ecological communication between the subsystemic actors in order to increase the use of local and organic food. The present situation in subsystemic alignment is analysed using Danish and Finnish cases suggesting possibilities for development towards sustainable public catering systems.

## Organic food in current public catering: Danish and Finnish cases

### Danish cases

**Economy:** Public food procurement for schools represents only a minor share in overall municipal spending. Some emerging school food provision initiatives focus mostly on organic foods with limited price premium such as milk, bread, potatoes, and vegetables. Organic foods are regularly bought in a number of municipalities such as the members of the Dogme 2000 network and in Western Zealand, mainly with limited cost increase; customers may pay part of the price of the meal.

**Law and politics:** Food provision for pupils is not a statutory requirement in Denmark. However, a growing number of municipalities and schools take on this type of service provision on a voluntary basis. There are also a number of policy statements for municipalities and schools to adopt food and nutrition policies and funding programmes to fuel innovation in voluntary food provision at schools, in effect from 2000 to 2007, resulting in more than 2000 institutions having experiences of implementation of school foodservice.

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**Education:** Food and nutrition at schools is a part of the national primary and secondary education curriculum in two subjects: home economics and health. In addition new emerging school food provision policies in some cases aim to link nutrition education to school foodservice.

### Finnish cases

**Economy:** Food for statutory public catering represents a minor share in municipal costs. However, these regular costs are under strict budget discipline. Price premium of organic food often limits the use of organic potatoes, vegetables and milk in public catering. Part of the municipalities use local and organic food, thematic organic meals and run ecological day-care centres and schools. Available funding and considerations about organic food effect on future development.

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## Concluding remarks: towards sustainable public catering systems

Public catering was identified to need development both in subsystemic activities and their stronger mutual alignment, whereby concerted efforts by subsystems of economy, law, science, politics and education could exert 'push' towards sustainable public catering systems.

Clearly the implementation of sustainable public catering systems means extensive communication struggles within and between subsystemic networks. The theoretically derived concept of sustainable public catering systems as 'centres of sustainability' in everyday life is able to offer new vision and orientation for developmental efforts for public catering organisations.

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# ORGANIC FOODS ON THE PUBLIC PLATE AS A DRIVER FOR LEARNING AND INNOVATION IN FOOD SERVICE ORGANISATIONS

Mikkelsen, Bent Egberg<sup>1</sup>

## Introduction

Policies for public procurement of organic foods have become a much used instrument to increase sales of organic produce in many western European countries (Labrenz , 2000, Spiller et al. 2003, Mikkelsen et al 2005, Mikkelsen & Elle 2005) and the idea that the public should lead the way as a role model and buy organic has received political support in many countries (Rech, 2003). It is supported by the European EU action plan for organic food and farming (EU commission, 2004) and organic procurement policies have become mainstream in a number of countries. In Denmark, public organic food initiatives have involved almost one third of its institutions (Mikkelsen, Pedersen & Therkildsen, 2004) during the past decades and nearly half of the Danish municipalities have experience in organic foods procurement projects.

However, unlike the relatively uncomplicated processes related to organic consumption in private households, the change processes related to implementation of organic foods in public food systems have been reported to be quite complicated and to involve a further number of steps in addition to merely substituting conventional foods with organic foods on a case by case basis (Mikkelsen et al, 2005). Experience based findings reported by O'Doherty et al (2001) suggest that implementation of organic procurement policy in food services force institutions to adapt to new conditions and that these new conditions seem to be associated with different "coping mechanisms," including adapting menu plans and recipes to the lower processing levels of organic foods, changing routines as a result of adaptation to current supply situations of organic foods and changing menu plans and recipes due to the price premium of organic produce. Thus, implementation of organic foods seem to have the potential to challenge and affect the way the food service organisation functions rather than just affect the food procurement.

Public food service systems have traditionally been viewed upon as relatively stable and predictable organisations with a fixed task of being responsible for providing food for clients and users, in settings such as homes for the elderly, hospitals as well as other institutions. As a consequence such food service organisations have not been forced to implement significant changes in the way they operate. But as modernisation processes have evolved in many sectors of the public administration also public food service has become subject to increasing external pressures, including the demand for sustainable behaviour. One of the most persistent demands has been the political idea that the public should support its organic food and farming programs by opening its food procurement for organic foods and as a result public food service systems seem to have become an arena for change. Metropolitan areas increasingly name

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their food service provision systems as key areas where public policy can be unfolded and practised. These policies are either driven by sustainability or obesity issues (Morgan & Sonnino 2007). Thus for modern food service organisations the ability to react to and engage and involve themselves in public policy agendas has increasingly become a key criteria for success of public food service.

We will use the official program for Danish procurement of organic foods for public food service as a case for studying how the public food service system reacts to the challenges presented by the sustainability agendas. The Danish Organic Action Plan II in 1995 named the public foodservice to be an important sales channel and as a result the funding scheme 'Grønne Indkøb' (Danish Green Procurement Programme - GPP) was created. This scheme operated between 1998 and 2004, with approximately 8 million EUR granted to 43 conversion projects, aiming at between a 10% to 100% organic food share. (DFFE, 2004, Mikkelsen & Elle, 2005). We will look into what type of changes the organic wave has created in food organisations that traditionally only had routine tasks. We will ask whether introduction of organic foods can be seen as a simple technical process or whether this introduction in fact lead to further changes in the organisation of more permanent nature. Whether in fact the food service organisation as a result has become better prepared for reacting to outside world expectations and cues and is thus better prepared to participate in change processes.

The aim of this paper is to gain insight into the change processes related to introduction of organic foods in Danish food service and to assess to what extent the processes can be seen as a primarily technical food substitution process or whether they lead to further change processes in the public food systems.

## **Theoretical approach**

The paper uses three different theoretical perspectives to understand and explain the implementation of organic foods in public food systems. The first approach draws on the conceptual framework of the street level bureaucracy approach (Lipsky, 1980), the second uses a group dynamic perspective to understand organisational change (Lewin, 1940) and the third is based on the garbage can model of decision making (Cohen, March and Olsen (1972). Taking the first perspective we assume that in order to implement an organic procurement policy we need an understanding of the processes taking place from the adoption of an organic procurement policy, at central political level, to the bureaucratisation and operation at local level. This approach follows in the footsteps of Lipsky (1980) who originally put forward the theory of Street Level Bureaucrats, as well as that of Winter (2000a, 2000b). The notion of Street Level Bureaucrats was suggested to explain the processes occurring when public policy is taken from paper to real life – when they are put to work. According to this framework Street-level bureaucrats are key players in any policy-implementation process and are expected to loyally carry out policy objectives put forward by governments. Lipsky argues that the praxis of policy implementation in the end comes down to the people who actually implement it: the practitioners or the 'street level bureaucrats'.

Taking the second theoretical approach we assume that food service systems undergo an organisational change process when they try to adapt from conventional to organic food supply. Lewin's framework was developed on the basis of studies of

group dynamic processes during organisational change processes in organisations and his work (1940) suggests that every organisation tries to maintain a state of homeostasis – a state of equilibrium and as a consequence there is an in-built resistance to change in organisations. Still following Lewin's approach this means that change is not automatically implemented merely as a consequence of a managerial line of command decision resulting from a political decision but that this decision is likely to undergo scrutiny by the members of the organisation. For instance, members might analyse the decision in order to assess the consequence of that decision for their own work conditions and in general decide whether or not they find that the decision makes sense. Lewin suggests that in order to implement change in an organisation, the organisation and its members, the organisation must first be made "changeable" and that the organisation after the implementation related change must freeze the change in its routines and operational procedures.

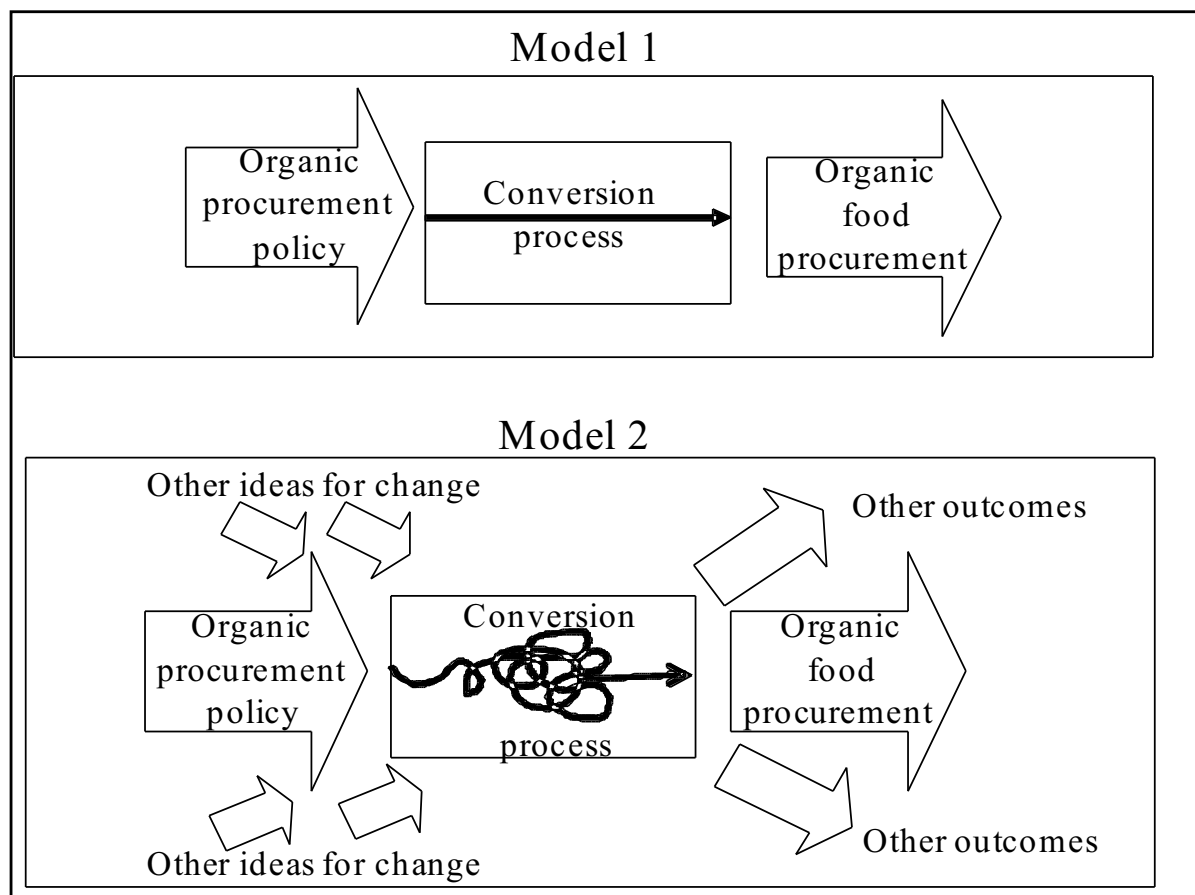
The third approach assumes that decisions related to implementation processes do not always follow a rational path and that the translation process from policy to kitchen level, related to organic policies, open an opportunity to shape and modify the policy to fit local needs and wishes. Using this approach we will draw on the work that Cohen, March and Olsen (1972) coined as the Garbage Can Model. The Garbage Can Model contradicts the traditional assumption that decision making is made on a rational basis. Instead, the Garbage Can Model argues that problems require attention and that problems are the result of the inability of organisations to predict the future accurately. In the ideal case a problem should trigger a tailored problem solving, and the Garbage Can Model argues that this may in fact happen. However, in some cases, organizations take a pragmatic approach and look in the "garbage" for a fix, which is then given the role "solution". The point is that the solution might be a turn-key solution to another problem and not custom built to solve the current problem. Participants may have favourite problems or favourite solutions, which they carry around with them. The term garbage can illustrates the fact that organizations seem to produce many solutions that are not used owing to a lack of appropriate problems. However, problems may eventually arise for which a search in the garbage can might yield fitting solutions. This model can be viewed as a garbage can into which various kinds of problems and solutions are discarded. Problems, solutions, participants, and choice opportunities flow in and out of a garbage can, and which problems get attached to solutions are largely due to chance. The mix of garbage depends on the mix of labelled cans available, on what garbage is currently produced and the speed with which garbage and garbage cans are removed.

## **Materials and methods**

The empirical basis for this paper is the data collected for the evaluation of the 'Grønne Indkøb' funding scheme. The evaluation was carried out by the consultancy firm NIRAS Konsulenterne A/S during 2004 (DFFE, 2004) and covered 41 of the 43 supported projects. The following methodologies were applied during the evaluation: Document analysis. As a first step, the funding applications for all supported projects and final reports of the projects concluded at the time of evaluation, were analysed. The purpose of this analysis was to gain an initial overview of the activities funded by the scheme and to identify a number of projects that could serve as case studies. Five projects, which is a reasonably representative selection of different types of projects under the funding scheme in terms of contents, objectives and size, were chosen for more detailed study. Questionnaire based survey. A questionnaire survey was carried

out among all projects receiving support under the funding scheme. The survey operated with two different versions of the questionnaire: one version for completed projects and the other for on-going projects. A total of 41 cases were analysed, 25 completed projects and 16 on-going projects. Of these, 35 projects answered the questionnaire, corresponding to an overall response rate of 85%. In order to supplement the quantitative data from the survey with more in-depth qualitative data, face-to-face, qualitative interviews and focus groups interviews were carried out.

During the early phase of the evaluation, qualitative interviews were carried out with representatives of the Directorate for Food, Fisheries and AgriBusiness, the government agency responsible for funding the scheme. The purpose was to supplement the documentary research with additional insight into the background for the adoption and implementation of the funding scheme. The project managers of the five projects selected for study and representatives of any other project partners, as well as management and kitchen staff of the institutions where the project was implemented were interviewed. Finally, three external experts in organic conversion were interviewed. The purpose of these interviews was to validate and refine the preliminary results of the analysis as well as to collect additional input for recommendations on how to further improve the funding scheme. Focus groups. The case studies and questionnaire survey were supplemented with a focus group interview with nine participants representing eight projects. The focus group interview was based on a semi-structured list of discussion points. In order to obtain a geographically balanced response, the focus group interview was supplemented with additional telephone interviews with two projects based in Jutland, covering the same themes. The reason for this was that projects from this part of the country were not sufficiently represented in the focus group, which was held in the Copenhagen area.



**Figure 1. Two models for implementation of organic foods.** The figure illustrates two pathways or approaches to the implementation of organic foods in public food service units.

## Results

The study indicates that conversion projects in food service are far from being only a matter of simply substituting conventional with organic foods. Instead it appears to be complex process involving characteristics known from organisational change and development projects. Figure 1 provides an attempt to illustrate this. Figure model 1 (above) is a simple and hypothetical model that assumes that organic procurement policy result in an simple and straightforward implementation of organic foods in the supply chain of the food service unit. However on the basis of the empirical data instead a model 2 (below) is proposed. This model argues that the organic procurement policy introduce a state of “excitation” - a turbulent unstable mode where existing routines and tasks of the organisation becomes “unembedded” and come to be the objects of negotiation where. This in turn creates the opportunity for other ideas for change to evolve and consequently the conversion process is likely to result in a number of other effects. Instead of only translating the buy-organic-food-policy into concrete action Street Level Bureaucrats we will look for ways in which the organic food policy can be integrated into an already existing routine. In addition, Street Level Bureaucrats intentionally try to look for other problems that organic conversion might be a solution for. The study indicates that organic procurement polices in many cases seem to function as a solution to other problems besides being a vehicle for more non-organic food procurement. The personal preferences and attitudes of the Street Level

Bureaucrats involved might play a strong role, as argued by Lipsky (1980) and both Street Level Bureaucrats at municipality level and practitioners at kitchen level might have their preference as to how organic procurement policies can be utilised for other purposes. The process seems to be very much in line with the mechanisms of organisational change that Lewin originally put forward since it is apparent that organic conversion is "socio-technical" rather than only "technical". Also the non rational explanations offered by the Garbage Can Model seems to be valuable in explaining the results since the GPP seem to come to act as a solution to a number of different problems and challenges that are not strictly related to organic foods.

## Conclusions

The study indicates that conversion projects should be understood as organisational change and development projects rather than simple substitution of foods projects. Organic conversion seems to perform as a quite complex process that involves significant changes in routines concerning purchase and preparation of foods but that it also involves the way that the food service organisation makes sense of it self. Organic conversion interferes radically with routines and procedures but results show that it also influences attitudes among employees. The study shows that the organic conversion projects, that have resulted from The Green Procurement Programme, has contributed significantly to the creation of new knowledge, attitudes, and competencies regarding the implementation and use of organic food among employees and users in the projects. Introduction of organic foods cannot be seen as a simple technical process but rather the introduction leaves the organisation permanently changed. The study indicates that the processes in which public food systems adopt to the policy expectations and transform them into praxis, show the features of innovation processes, if we understand innovation as processes related to development of products and concepts in intra organisational networks.

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# ORGANIC FOODS ON THE PUBLIC PLATE AS A DRIVER FOR LEARNING AND INNOVATION IN FOOD SERVICE ORGANISATIONS

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## Theoretical approach

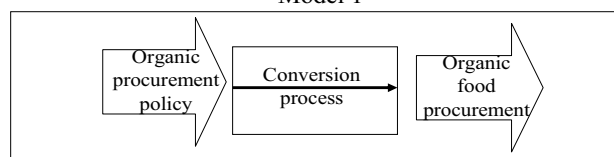
The paper uses three different theoretical perspectives to understand and explain the implementation of organic foods in public food systems. The first approach draws on the conceptual framework of the street level bureaucracy approach (Lipsky, 1980), the second uses a group dynamic perspectives to understand organisational change (Lewin, 1940) and the third is based on the garbage can model of decision making (Cohen, March and Olsen (1972)). Taking the *first perspective* we assume that in order to implement an organic procurement policy we need an understanding of the processes taking place from the adoption of an organic procurement policy at central political level to the bureaucratisation and operationalisation at local level. This approach follows in the footsteps of Lipsky (1980) who originally put forward the theory of Street Level Bureaucrats, as well as that of Winter (2000a, 2000b). The notion of Street Level Bureaucrat was suggested to explain the processes occurring when public policy is taken from paper to real life – when they are put to work. According to this framework Street-level bureaucrats are key players in any policy-implementation process and are expected to carry out policy objectives put forward by governments. Lipsky argues that the praxis of policy implementation in the end comes down to the people who actually implement it: the practitioners or 'street level bureaucrats'. Taking the *second theoretical approach* we assume that food service systems undergo an organisational change process when they try to adapt from using conventional to organic food supply. Lewin's framework was developed on the basis of studies of groups dynamic processes during organisational change processes in organisations and his work (1940) suggests that every organisation try to maintain a state of homeostasis – a state of equilibrium and as a consequence there is an in-built resistance to change in organisations. Still following Lewin's approach this means that change is not automatically implemented merely as a consequence of a managerial line of command decision resulting from a political decision but that this decision is likely to undergo scrutiny by the members of the organisation. For instance, members might analyse the decision in order to assess the consequence of that decision on their own work conditions and in general decide whether or not they find that the decision makes sense. Lewin suggests that in order to implement change in an organisation, the organisation and its members the organisation must first be made "changeable" and that the organisation after the implementation related change must freeze in the change in its routines and operational procedures. The *third approach* assumes that decisions related to implementation processes not always follow a rational path and that the translation process from policy to kitchen level related to organic policies open an opportunity to shape and modify the policy to fit local needs and wishes. Using this approach we will draw on the work that Cohen, March and Olsen (1972) coined as the Garbage Can Model. The Garbage Can Model contradicts the traditional assumption that decision making is made on a rational basis. Instead, the Garbage Can Model argues that problems require attention and that problems are the result of the inability of organisations to predict the future accurately. In the ideal case a problem should trigger a tailored problem solving, and the Garbage Can Model argues that this in fact may happen. However, in some cases, organizations take a pragmatic approach and look in the "garbage" for a fix, which is then given the role "solution". The point is that the solution might be a turn-key solution to another problem and not custom built to solve the current problem. Participants may have favourite problems or favourite solutions which they carry around with them. The term garbage cans illustrates the fact that organizations seems to produce many solutions which are not used owing to a lack of appropriate problems. However, problems may eventually arise for which a search in the garbage can might yield fitting solutions. This model can be viewed as a garbage can into which various kinds of problems and solutions are discarded. Problems, solutions, participants, and choice opportunities flow in and out of a garbage can, and which problems get attached to solutions is largely due to chance. The mix of garbage depends on the mix of labelled cans available, on what garbage is currently produced and the speed with which garbage and garbage cans are removed.

### Aim:

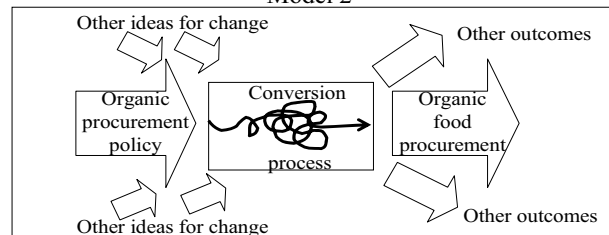
- to study the GPP initiated innovation processes in Danish food service in order to assess to what extent the processes can be seen as primarily technical substitution process or whether they lead to more deeply rooted change processes in the food systems.
- to assess the primary and secondary effects as well as the drivers and constraints of the conversions.
- to study how organic procurement policies are translated from policy level; how it is taken from the decision making process to practitioner Street Level Bureaucrat level; and, finally, translated into action.

## Results

Model 1



Model 2



**Figure 1. Two models for implementation of organic foods.** The figure illustrates two pathways or approaches to the implementation of organic foods in public food service units. Model 1 is a simple and hypothetical model which assumes that organic procurement policy results in an uncomplicated introduction of organic foods in the supply chain of the food service unit. On the basis of the empirical data a Model 2 is developed (below). This model argues that the organic procurement policy opens up a number of other ideas for change and that the organic conversion is likely to result in a number of other effects.

## Methods

The empirical basis for this paper is the data collected for the evaluation of the 'Grønne Indkøb' funding scheme. The evaluation was carried out by the consultancy firm NIRAS Konsulenterne A/S during 2004 (DFFE, 2004) and covered 41 of the 43 supported projects. The following methodologies were applied during the evaluation:

**Document analysis.** As a first step, the funding applications for all supported projects and final reports for those projects which were concluded at the time of evaluation were analysed. The purpose of this analyses was to gain an initial overview of the activities funded by the scheme and to identify a number of projects which could serve as case studies. Five projects, which were a reasonably representative selection of different types of projects under the funding scheme in terms of contents, objectives and size, were chosen for more detailed study.

**Questionnaire based survey.** A questionnaire survey was carried out among all projects receiving support under the funding scheme. The survey operated with two different versions of the questionnaire: one version for completed projects and the other for on-going projects. A total of 41 cases was analysed, 25 to completed projects and 16 to on-going projects. Of these, 35 projects answered the questionnaire, corresponding to an overall response rate of 85%. In order to supplement the quantitative data from the survey with more in-depth qualitative data, face-to-face, qualitative interviews and focus groups interviews were carried out.

**Face-to-face, qualitative interviews.** During the early phase of the evaluation, qualitative interviews were carried out with representatives of the Directorate for Food, Fisheries and Agri Business, the government agency responsible for funding the scheme. The purpose was to supplement the documentary research with additional insight into the background for and implementation of the funding scheme. The project managers of the five projects selected for study and representatives of any other project partners, as well as management and kitchen staff of the institutions where the project implemented were interviewed. Finally, three external experts in organic conversion were interviewed. The purpose of these interviews was to validate and refine the preliminary results of the analysis as well as to collect additional input for recommendations on how to further improve the funding scheme.

**Focus groups.** The case studies and questionnaire survey were supplemented with a focus group interview with nine participants representing eight projects. The focus group interview was based on a semi-structured list of discussion points. In order to obtain a geographically balanced response, the focus group interview was supplemented with additional telephone interviews with two projects based in Jutland, covering the same themes. The reason for this was that projects from this part of the country were not sufficiently represented in the focus group, which was held in the Copenhagen area.

## Conclusions

The survey shows that conversion projects have to be considered as development projects rather than simple substitution of foods projects. The evaluation of these therefore need to have a wider aim. As such, the survey points to the necessity of having more concrete goals apart from the goal of conversion towards organic food. The case studies and other documentation collected in relation to the evaluation show that successful projects are typically characterized by the following project activities which are conducted alongside the main goal of organic conversion.

- An introductory seminar where the needs and expectations of the stakeholders are described and outlined.
- The approval of policies and the establishment of a project organization and project plan;
- An initial start-up meeting for all involved employees;
- The mapping of purchases, consumption, waste, economics and finance etc.;
- A selection of areas subject to the project's goals and the determination of goals; and
- A final measuring of the project's effect.

## **iPOPY – innovative Public Organic food Procurement for Youth. School meals – and more!**

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Key words: consumers, food policy, iPOPY, supply chain, nutrition and health

### **Abstract**

*One of eight pilot projects in the European CORE Organic programme, innovative Public Organic food Procurement for Youth, (iPOPY) will study efficient ways of implementing organic food in public serving outlets for young people (2007-10). By analysing practical cases of school meal systems and other food serving outlets for youth, we will identify hindrances and promoting factors in the participating countries (Denmark, Finland, Italy and Norway). Policies, supply chains, certification systems, the young consumers' perception and participation, and health effects of implementation of organic policies and menus are focussed in iPOPY. The main aim is to suggest efficient policies and comprehensive strategies to increase the consumption of organic food among young consumers in a public setting, and fostering sustainable nutrition. Interdisciplinary project tools under development will be presented along with the first project results, which will be available by June 2008.*

### **Introduction**

The project innovative Public Organic food Procurement for Youth (iPOPY) is one of eight pilot projects conducted under CORE Organic ([www.coreorganic.org](http://www.coreorganic.org)); a joint funding research programme among 11 European countries (2007-10). The iPOPY project is funded under the thematic area "Marketing research". The CORE Organic funding body network demands knowledge and practical evidence that will contribute to increase the consumption of organic food. Governments, companies, producers and caterers are increasingly committed to public procurement of organic food, but many challenges remain. The iPOPY project will analyse systems of public organic food procurement in four countries and suggest, on the basis of these empirical results, efficient policies and instruments for increased consumption of organic products in public food serving outlets for youth. In this paper, the project is presented in its initial stage, emphasising the goals and methods to achieve them. By June 2008, results will be available from the project work packages and presented.

### **Project background, goals and structure**

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Many European countries aim at an increased organic production and consumption, and the responsibility of the public sector to buy organic is recognised. Whereas organic food and - production have traditionally been linked to bottom-up processes, national and local public top-down policies are gradually developed on public procurement of organic food. However, national level decisions are often tackled inappropriately when implemented on a more local level (Kristensen et al. 2007). To be realised, political decisions are dependent on the enthusiasm of many secondary actors which have the power to contribute to, or hamper an implementation of organic food. Further, political aims are often conflicting and may counteract each other. Hence, knowledge is required about strategies and instruments that may increase the efficiency of national POP policies when these are implemented on a local level.

The aim of iPOP is to study implementation of relevant strategies and instruments linked to food serving outlets for young people in some European countries. School meal systems are the most important way of public food provision for youth, but other areas such as kindergartens, hospitals and music festivals are also of interest. Within this field, the supply chain management, procedures for certification of serving outlets, stakeholders' perceptions and participation, and the potential of organic food in relation to health and obesity risks will be studied in four explorative work packages (WP2-5), whereas WP1 takes care of the project co-ordination.

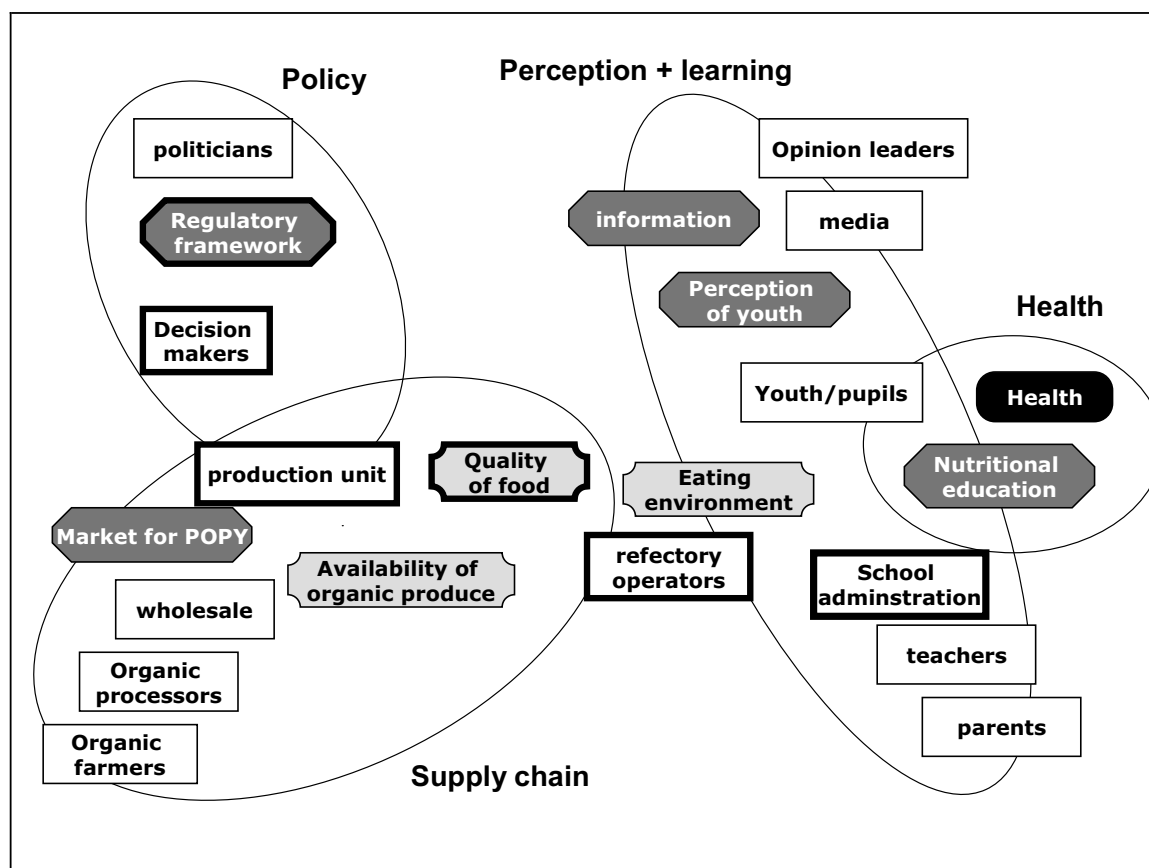
The research project is a co-operation between Norway, Denmark, Finland and Italy. German researchers also participate, funded by the Research Council of Norway. The project coordination is placed at Bioforsk Organic Food and Farming Division (NO).

### **Methodology: An interdisciplinary analytical framework and national comparisons**

Public organic food procurement for youth (POPY) is a complex phenomenon that varies considerably across European countries. There is a need for cross-national comparisons of POPY systems to reveal determinants that are central for the development of such systems, as well as experiences and best practices that may be adopted by other countries and regions. National reports are developed for this purpose and published on the project web site. Furthermore, a complex reality calls for interdisciplinary research integrating diverse disciplinary knowledge about policies, supply chains, perceptions and learning as well as health and nutrition. To synthesize these diverse results, a common analytical framework is under development, using the methodology of constellation analysis (Schön 2007). Due to the large variety of POPY systems in the four project countries we initially focus on school meals. In the first stage of this work, the project team has suggested central actors and framework conditions and described their relations, which make up a POPY constellation. This preliminary version was visualised and "mapped" (Fig. 1). It serves as a heuristic tool for the research project. The visualisation points out central actors and framework conditions of the system, and allows for describing sub-constellations that form coherent sections of the overall constellation. Four sub-constellations, reflecting the four explorative iPOP WPs, seem to shape the outcome of public organic procurement: policies of POPY, providing a regulatory framework; supply chain management; consumer perceptions, practices and learning; nutrition and health (Nölting et al. 2007).

An important aspect of the mapping of constellation and sub-constellations of the POPY phenomenon is that connections between actors as well as framework conditions are identified and described. Further, the visualisation may reveal "blind

spots” and possible dynamic and feed-back loops between the sub-constellations. An important part of the procedure to develop the framework is to stimulate the discussion in the project across work packages, and to formulate hypotheses for further research.



**Figure 1. Mapping the constellation of public organic food procurement linked to school meals**

A coherent common terminology across work packages and disciplines is an essential part of this bridging concept. Altogether, the mapping process, the identification of central actors and framework conditions as well as common and clearly defined terms will provide an analytical framework to serve as a common point of reference for the research conducted in the work packages and ensure the comparability of national analyses and case studies.

## Coming results

The first outcome of iPOPY will be national reports describing the situation with respect to school meals (WP2), and to which degree organic food is included in school meals, in the four iPOPY countries. There is a huge variation between the countries with respect to school meal traditions, ranging from Italy, where all children receive a subsidised warm lunch daily and both local and organic food is heavily supported by public legislation (Morgan and Sonnino 2005), to Norway, where children may subscribe to daily milk and/or fruit servings. In Finland, warm lunch is served for free but the share of organic food is low. In Denmark, various approaches to cold and warm lunch meals are being developed, with a considerable public support for organic; however, the implementation of organic food still has a long way to go.

The certification systems of organic production, processing and serving outlets in DK, FI, IT, NO, Germany and the EU in general will also be described in national reports (WP3). The aim of this work is to discuss and suggest general regulations and certification procedures for food serving outlets. By June 2008, initial results will also be available about supply chain management (WP 3), and relations between organic food and healthy eating (WP5). Positive attitudes towards organic procurement among catering managers have been shown to be associated with healthier menus in worksite canteens (Mikkelsen 2006), and iPOPYP-WP5 will study whether this pertains also to young people, where a positive attitude towards organic food would be especially important to establish.

The overall iPOPYP perspective is that food policies are crucial to achieve efficient public procurement systems of organic food, and analysis of actor networks (Hajer and Wagenaar 2003; Scott 2001) will be performed in WP2 based on information from other WPs. Drivers and constraints for public organic food procurement will be studied, as well as best practice cases, to develop and propose comprehensive strategies for POP that are practically and contextually adaptive. By responses from municipal stakeholders as well as actors in the school environments, these results will highlight the relationships between organic procurement policies, food and nutrition policies and the actual serving practices.

## Conclusions

At the ISO FAR conference, the project will be presented emphasising the instruments developed to analyse and synthesize results across WPs. Results from national descriptions of public organic food procurement systems for youth will be presented and compared, and a first discussion will be raised about how these results can be utilised to describe and explain each other.

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# iPOPY – innovative Public Organic food Procurement for Youth. School meals – and more!



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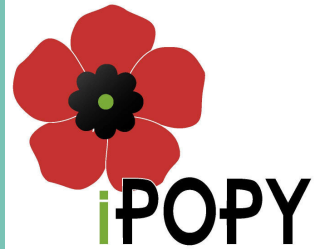
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## Background and aim

Governments and commercial companies are increasingly committed to public procurement of organic food, but many challenges remain to increase the share of organic products in the meals. The aim of iPOPY is to analyze public organic food procurement for youth in four European countries (Denmark, Finland, Italy, Norway), and suggest instruments for increased organic consumption. iPOPY is one of eight pilot projects in the CORE Organic program, [www.coreorganic.org](http://www.coreorganic.org).

CORE organic



## Project content

Political decisions are dependent on many actors to be realized. Do they help or hamper the use of organic food? Political aims are often conflicting and counter-acting. How can organic food be efficiently supported?

iPOPY focuses on school meal systems, but kindergartens, hospitals, summer camps and music festivals are also studied.

Areas of activity:

- Policy and instruments
- Supply chain management
- Certification of serving outlets
- Involving the pupils
- Improve health, reduce obesity
- Project co-ordination

## Preliminary results

Public organic food procurement (POP) systems are compared between the four countries. To reveal central determinants for the development of such systems, we are developing an analytical framework (Figure 1).

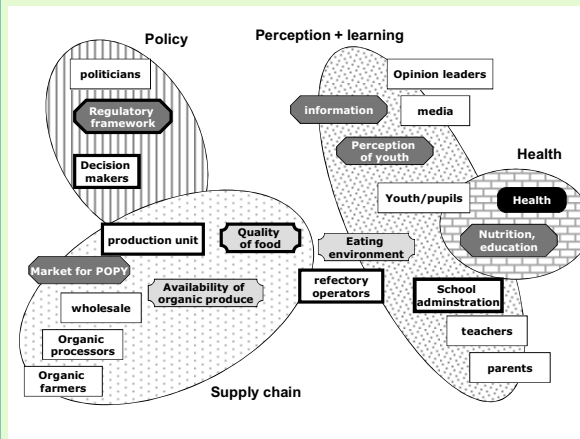


Figure 1. Mapping the constellation of public organic food procurement linked to school meals.

A visualisation is useful to identify central actors and framework conditions of the systems. The map (Fig. 1) represents a constellation of public organic food procurement at schools, and comprises four sub-constellations forming coherent domains of their own. These sub-constellations shape the total system: Policies, providing a regulatory framework; supply chain management; consumer perceptions, practices and learning; nutrition and health. The project activities reflect the sub-constellations.

We have also produced national reports about the school meal systems in the four countries, available at the project web site [www.ipopy.coreportal.org](http://www.ipopy.coreportal.org). School meals, and the use of organic ingredients, vary between countries. In Finland, warm lunch is free for all children from kindergarten to comprehensive school, but organic food is not yet much in use. Italian authorities support daily warm meals for pupils spending full days in school, and many regions support organic and local food. In Denmark, various new meal concepts are tested, in some cases with a significant share of organic produce. However, a lunch break of only 20 minutes makes it difficult to buy and enjoy a warm meal, and the price premium hampers an increased organic supply. Norwegian pupils generally bring a packed lunch and subscribe to milk and/or fruit schemes. Some regions offer organic fruit and/or milk, and pupils in schools with a lower secondary level (grade 8-10) receive the fruit without payment.



The project team at its first meeting, September 2007.  
Picture: L. Mazotti.



## First conclusions and further work

Drivers and constraints for public organic food procurement will be studied, as well as best practice cases, to propose comprehensive and practically adaptive procurement strategies. By responses from stakeholders in schools and municipalities, the results will highlight the relationships between organic procurement policies, food and nutrition policies and the actual serving practices. Many challenges are facing efforts to implement organic food in serving outlets for youth, but various successful cases demonstrate that the difficulties may be overcome.

Please leave your card in the envelope below to receive the electronic iPOPY news, which is published 5 times per year.

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# CORE Organic

innovative Public Organic food Procurement for Youth (iPOPY)

## Abstract

The main aim of iPOPY is to identify and describe efficient ways of implementing organic food in public serving outlets for young people. Young people are the future daily food shoppers and guests for the out-of-home eating sector, and most European governments search for strategies to foster sustainable nutrition, including an increased consumption of organic food. As the youth resides longer in public institutions and eating habits are often unsatisfactory, school meals attain large public interest as a lever for change. School meal systems are the main practical cases in the project, and hindrances and promoting factors for organic food to be consumed in schools are explored in Denmark, Finland, Italy and Norway. The school meal systems in these countries are highly diverse. Whereas Finland and Italy have well developed systems with warm lunch served daily for all pupils, Denmark and Norway rely on a packed lunch brought from home. Italy and Denmark have ambitious goals for the consumption of organic food in schools, whereas Finland and Norway have not focussed much on organic food in schools so far. The project has four explorative work packages, studying policies, supply chains and certification, the young consumers' perception and learning about sustainability and organic food, and health effects of organic menus. A coordinative work package ensures project management and draws the main conclusions. More information, newsletters and publications are found at the project web site, [www.ipopy.coreportal.org](http://www.ipopy.coreportal.org).

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ISBN: 978-87-991343-7-3

