



Final report

for

1881

Innovative Public Organic food Procurement for Youth (iPOPY)

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**Period covered: Formally 01.07.2007 – 30.06.2010,
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CORE Organic

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Sub- contracted participants, funded by MIPAAF: PROBER, Associazione dei Produttori Biologici e Biodinamici dell'Emilia Romagna, P, WP3.

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Short abstract (282 words)

The transnational research project iPOPY (innovative Public Organic food Procurement for Youth) has studied public food serving for young people in five European countries (Denmark, Finland, Germany, Italy and Norway), to reveal efficient strategies and policies for implementing organic food. In this way, the project would contribute to increase the consumption of organic products in Europe.

Significant consumption of organic food among youth has been achieved especially in Italy, where 40 % (by weight) of the school food is organic. Public regulations demanding that municipalities should prioritize organic and otherwise certified food (local, typical, fair trade) have been very useful to establish this situation.

A large consumption of organic food in schools is easiest achieved in “captive catering” situations, where all or most pupils participate in the food service. Highly flexible systems with many options may reduce the food quality because the demand will be highly variable, and a stable high quality school food production is then difficult to plan and develop. A “captive catering” of complete meals will increase the volume of food consumed, and the possibilities to link the food consumption to food education. Caring for people’s health, the environment and organic food and agriculture are all tendencies pulling in the same direction. Schools with a dedicated organic food policy are also more active to promote healthy eating among the pupils in general.

Organic food in schools should be linked to concepts such as sustainable development and sustainable nutrition, and embedded as a “whole school approach”. Sustainable development is a general educational aim for the basic education in all studied countries, and organic food in schools has a large potential to contribute in the teaching of sustainability.

Project Summary, including objectives and expected outputs

Main aim (from the project proposal)

The main aim of iPOPY is 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.

Specific objectives (from the project proposal)

1. To identify and verify experiences of POP for young people in all participating countries, and to make them accessible.
2. To analyse and suggest strategies for policy implementations that may increase the consumption of organic products in public food serving outlets for youth.
3. To identify various best management practices in relevant supply chains, including innovative approaches such as development of sustainable relationships between chain actors, and to reveal and assess the constraints for POP (e.g. premium prices, supply chain bottle necks).
4. To explore the preferences, perceptions, practices and learning of young people introduced to organic food through POP.
5. To identify the extent to which POP might act as a driver for healthy eating among young people, and to explore the potential of participatory actions to support the introduction of organic food in public food serving outlets for youth and to increase the knowledge construction about sustainable nutrition.

The iPOPY project combines studies of drivers and constraints for public organic food procurement with studies of best practice cases, to generate structured knowledge and develop comprehensive POP strategies which are practically and contextually adaptive. Four work packages (WPs) will study **policies** for increased organic consumption (WP2), **supply chain** management and **certification** issues (WP3), **consumers' preferences** (WP4), and actual **health** related eating habits (WP5). Schools and day-caring institutions will be the most important cases to study, but other cases may also be relevant. The project management is organized as a separate WP (1), which also draws the final conclusions on behalf of the results achieved in WP2-5.

<u>Time</u>	<u>Milestone (from the project proposal)</u>
June 07	Project starts. WP leaders include co-workers in detailed planning.
Sept 07	1st project meeting, develop common analytical framework.
Nov 07	National user groups established. Website and 1 st newsletter launched.
Feb 08	Project meeting with open seminar, Italy. Focus WP3.
June 08	Reporting year 1, revision of project plans.
Nov 08	Project meeting with open seminar, Finland. Focus WP4.
March 09	Project meeting with open seminar, Germany. Focus WP3.
June 09	Reporting year 2, revision of project plans.
Oct 09	Prelim. conclusions, focus on WP2 and WP5. Open seminar, Denmark.
Feb 10	Drafts of manuscripts of scientific papers submitted to all co-workers.
May 10	Final project meeting. Open seminar, Norway.
June 10	All publications submitted. Project evaluation.

Outputs and deliverables (from the project proposal):

Papers for peer-reviewed scientific journals (one or more per WP).
Papers for (inter)national trade journals.
Arrange seminars and participate in (inter)national conferences.
Web-based project newsletter about 5 times per year.

1. Main results, conclusions and fulfilment of objectives

1.1 Summary of main results and conclusions (*whole project duration*)

Research focus

The aim of iPOPY was to contribute to increased consumption of organic food especially among young people, by revealing efficient strategies and instruments and analysing 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. School meals in Denmark, Finland, Italy, Norway, and to some extent Germany were the central focus of our research.

Large variation between school food systems

For the assessment of school food systems and the implementation of organic food, five categories describe the main dimensions of variation (Løes and Nölting, submitted). Three categories are generally valid for any school food system: The type of school food service, if complete meals are offered or only single food items; the degree of public financing, if the public pay all costs or if the user payment is significant; and the degree of political and administrative involvement in school food procurement in general. Two additional categories are of special importance for the integration of organic food in school meals: The degree of specific support for organic school food, such as policies and regulations; and how well the supply of organic food adapted to school meals is developed. To maximise the consumption of organic food in schools, the school meals should be complete meals, served without user payment, well embedded in public regulations and nutritionally calculated, with a high share of organic ingredients, in a market with well developed supply chains for organic school catering. This ideal situation may be visualised in a radar diagram as a pentagon (Figure 1), serving as a base of comparison for the situation in each of the five countries studied in iPOPY. Finland and Italy have various patterns, but with their well established school meals service they are both in a leading position. Public demand for certified quality food for school meals has been a strong driver in Italy. In Finland, organic food is recognised as a means for more sustainable food consumption, and school meals are free for the users. In spite of a currently low organic share, the potential for organic school food should be significant in this country. Denmark has a well developed organic market, and actors involved in school food service have often also combined this with a high interest in organic food. However, the traditional and well established school meal is a packed lunch. This tradition is hard to change also in Norway, the country of origin of the sandwich lunch. The situation in Germany is rapidly changing as whole day schools become the normal practice.

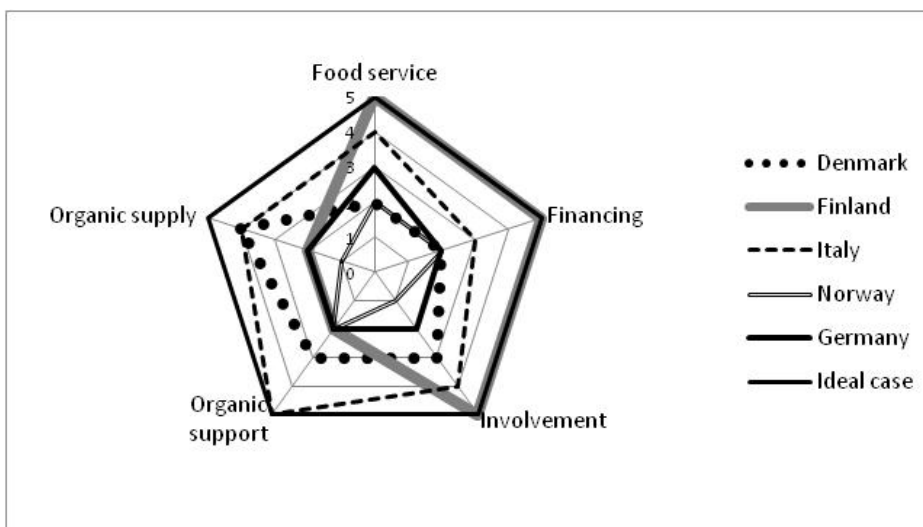


Figure 1. The potential for organic school food in Denmark, Finland, Germany, Italy and Norway, compared to an ideal case-situation for a maximum consumption of organic food in schools.

Multiple embedding is required

Policy interventions in the school food area have to tackle several issues concurrently: political support (symbolic policy), financial means, tender calls and contracts, quality standards, education, participation etc. On the other side, such interventions have to address different actor groups very specifically. Hence, implementing organic food in existing school food aims and policies, including aims and policies for organic food purchase, is a complex task. Multiple embedding processes, on several levels and with various actors in parallel, are required. Policy measures and interventions need to be tailored for each specific school meal constellation. However, decision makers and stakeholders should develop and establish standards and guidelines for the implementation of organic school food at national as well as at regional level. Stakeholders representing different parts of the organic school meal constellation should participate in this process.

Sufficient financial support for high quality (organic) school meals has to be provided, such as in Italy and Finland. For a limited period, additional financial support for organic food is justified because of its positive complementary effects and because of its status as an infant industry. Initial support will foster the development of the potentially huge market of organic out-of-home catering in general, and of organic school meals specifically.

School food systems vary from complete meals served by the public, such as in Finland and Italy, to sandwich-based lunches brought from home or bought nearby or in school kiosks such as in Norway and Denmark. The more formalized, politically prioritized and economically supported the school food systems are, the more embedded the systems will be in terms of pupils' participation, infrastructures such as canteen facilities etc. On the other hand, top-down regulated systems may lose the civil embeddedness, and the pupils and parents may feel decoupled from the decisions (Kristensen et al., 2010). However, in public catering contexts under severe cost discipline due to publicly funded free school meals, there are caterers who make initiatives to use organic and local food, to co-operate with and support food supply chains as they express professional identity for sustainability (Mikkola, 2009a). These caterers seem to exert social force for sustainability, while they need more support in terms of learning about the supply chains they attach to professionally; mediated dialog may enable such learning and systemic development (Mikkola, 2009b). Furthermore, caterers would need to understand more in-depth the role of organic agriculture in their professional work (Post and Mikkola, 2010; Risku-Norja and Mikkola, 2009).

In the less regulated systems of Norway and Denmark there is a lack of regulatory embeddedness which gives the school food systems being tried/developed a hard time to survive because the structures are too weak. There is a lack of canteen facilities, economic support etc. However, the involvement of the civil actors may be stronger in such cases, possibly due to this lack of regulatory embeddedness (Kristensen et al., 2010).

Organic in Italy due to public demand

Italy has successfully improved the quality of school meals over the last decade. Actors from policy and public administration put emphasis especially on the quality of the used products; they should whenever possible come from controlled and certified production. Organic agriculture is the most important, but fair trade, local and special products are also prioritized. Regional laws and guidelines demand that school meals should be produced from high quality food, and this has resulted in a high consumption of organic food in Italian schools. On average, 40 % (by weight) is organic (Spigarolo et al. 2010). As the normal lunch during a whole-day school day in Italy is a warm meal, this constitutes a large volume of food, contributing to rank Italy nr 6 on the list of top countries of organic consumption in Europe. 3 % of the food and drinks consumed in Italy were certified organic by 2008; only Denmark (6.7 %), Austria (5.3 %), Switzerland (4.9 %), Germany (3.4 %) and Luxembourg (3.3 %) had larger organic market shares (Willer and Kilcher, 2010). In spite of this remarkably high organic consumption, there is a need to develop and strengthen the organic supply chains, in the perspective of both producers and caterers. Carefully designed calls for tenders in the municipalities, being in charge of school food procurement are a key instrument to influence the quality of school food (Bocchi et al., submitted). Best practice cases of municipal school food systems have managed to establish a good dialogue between supply chain actors and municipality stakeholders. Various stakeholders should be brought together to discuss their

demands and increase the understanding between the different fields of school meal procurement, in order to serve tasty, organic meals (Kristensen et al., 2009).

Catering certification: Call for harmonization

Certification is required to protect consumers' interest and maintain a high credibility in (premium priced) organic food. A European survey with responses from 17 countries showed that stakeholders involved in certification as well as stakeholders in close contact to catering practice were not very satisfied with the current situation that certification of mass catering is not harmonized in the European Union. Hence, a harmonisation would be welcomed (Strassner al., submitted). Various countries have developed highly different regulations and schemes to cope with certification of catering (Strassner 2009; Strassner et al., 2010). In countries where certification of mass catering is mandatory, such as in Norway and Germany, as well as in countries with advanced systems of labelling organic catering such as Denmark and Finland, the certification process is found to be time consuming, but informative and useful to communicate an organic agenda (Strassner et al. 2010). Italy, lacking a certification of mass catering, especially requests a harmonisation of mass catering certification on the EU level. All stakeholders emphasise that harmonised relations in this field should be flexible to adapt to the actual situation in the different countries.

Organic = Sustainability in practice

The perceptions, preferences, practices and learning of young people related to procurement and consumption of organic food were also explored. Knowledge about the users and consumers is required for a successful implementation of organic food. In all countries, curricula were studied to reveal what the pupils learn about organic food and sustainability. Organic food is not explicitly included in the learning objectives in any national curricula, but sustainable development was included and thoroughly emphasised in all countries, commonly as a cross-cutting topic and linked with the importance of educating conscious and responsible citizens (Roos and Mikola 2010). Organic food is well suited as a topic in sustainability education, both due to the values these issues have in common and due to the practical, hands-on experiences organic food education allows for such as cooking, farm visits and school gardening. These activities offer involvement, authentic learning experiences, and the use of different senses. Various educational material and activities were available in the four countries in textbooks, leaflets and on the Internet, often offered by non-governmental organic associations. In Finland and Italy, where the school meals are a part of the education, one more arena is available where different issues related to food can be taught.

Young people express positive perceptions of organic food in general, e.g. good for health and the environment, better taste; but ambivalences related to increasing their consumption, e.g. high price, limited availability, questioning taste differences and evidence for organic being healthier and better for the environment (Roos 2009). The more integrated organic food was in the school culture in general, the more positive the pupils' opinions were about organic food (Marley, 2008). When school food services are initiated from outside the school, the pupils may perceive that there is no link between this food and the positive impression they generally have about organic food. More should be done to embed organic food in a whole school approach (including curriculum, school policies, participatory and action-oriented educational approach and school meals). Food education for sustainable development will profit from integrating organic food, also because this implies a practice based and experiential food education. Cultural factors need to be considered when planning education and learning processes. It is important to take into consideration that introducing organic food may cause ambivalence and resistance among consumers. Young people do not have settled perspectives on organic food, and will usually not be strong drivers for organic school food.

Organic school policy promotes healthy eating

Unhealthy eating among children and adolescents is a growing problem causing obesity, diabetes and other nutrition related disorders. As a result there is a growing interest in using existing and emerging school food provision services in a more strategic manner – a development coined as a European “school food revolution” (Morgan and Sonnino 2008). Many of these initiatives across

Europe are driven by a wish to make the food more sustainable by integrating organic food supply. There is ample evidence that consumers in most cases perceive a link between organic food and individual health. Previous research from worksite eating settings has indicated that these two directions seem to go well together, and that green caterers serve healthier food than their non-green counterparts. The question is, does this hold for other settings such as schools?

School food coordinators in all iPOP countries plus Germany were asked about the “organicness” and general “healthiness” of their school food service, e.g. if the school had a food and nutrition policy, and a policy to serve organic food. In Denmark, a clear link was found between organic food supply strategies and generally healthier eating agendas in schools. Organic schools, aiming at including a certain share of organic in the school food service, provide organisational environments that are more supportive for healthy eating than their non-organic counterparts (He et al., submitted). Pupils interviewed confirm that they make a close association between organic food and health (Andersen et al., 2010, Hansen 2009, Marley 2008), but top-down initiated school food programs struggle to become embedded in the school culture and pupils often see no link between the food offered there and what they learn about sustainable food production and –consumption in their education. “Soft” interventions, such as the introduction of organic food, are too often a top-down approach. Without sufficient embedding of such initiatives among the users, the food service systems may suffer from a low degree of utilization.

This points back to the need for embedding school meals in a whole school approach where the pupils’ and practitioners’ everyday life-perspective is included. Then, organic school food strategies may be very supportive to promote healthy eating at school. School actors should think in terms of radical school food menu redesign when integrating organic food. Substitution of conventional products is not enough. A school food and nutrition policy should be developed, including positions on both healthy eating and organic food.

Publishing and dissemination

Due to the interdisciplinary approach of iPOP and our wish to be close to practitioners and actors able to serve organic food for youth in public settings, we have arranged several workshops and conferences. Some were linked to other events such as the Organic World Congress in Modena 2008 and the annual fair Biofach in Germany (2008, 2009 and 2010). iPOP conferences were also arranged in each partner country; in Helsinki 2009, Copenhagen 2009, Bologna 2010 and Oslo 2010. From most of these events, proceedings were published in the CORE Organic Project Series Report. This report series has no quality approval step, but we arranged an internal peer-review of the papers by the editor(s).

Thanks to a successful cooperation with interested students, iPOP has contributed to several bachelor, master and (German) Diploma theses, referred in chapter 4.

Already in January 2008 we were in need of a common report series, and it was decided to use the Bioforsk report series with the logos of all partners on the front page. This series has a quality approval step which proved to be very useful.

Towards the end of the project, there was not enough time to publish remaining reports in the Bioforsk series, and some reports were published in report series of the responsible institute, and also in the CORE Organic Project Series Report.

Literature referred

Andersen, S.,Burkal, A.,Olsen, M.F. and Mikkelsen, B.E. (2010) *Pupils’ Conception of Organic Foods and Healthy Eating in School. Qualitative insights from focus group interviews with 5th and 7th grade pupils in a Copenhagen elementary school.* Bioforsk Report Vol. 5 No. 37. 2010; iPOP discussion paper 2/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway.

Bocchi, S. and Spigarolo, R. *The school meal system: analysis of calls for tender as a tool for improving quality.* Paper submitted to the scientific journal Food policy (Elsevier) on August 20, 2010.

Hansen, M., Laursen, R.P. and Mikkelsen, B.E. (2009) *Design and pilot testing of a dietary assessment methodology for children at school*. Bioforsk Report Vol. 4 No. 150 2009; iPOPY discussion paper 4/2009. Bioforsk Organic Food and Farming, Tingvoll, Norway.

He C., Løes A.-K. and Mikkelsen, B.E. *Organic school food policies are supportive for healthier eating behaviours – results from an observational study in Danish schools*. Submitted to British Food Journal on August 12, 2010.

Kristensen, N.H, Netterstrøm, S., He, C., Mikkelsen, B.E. and Nielsen, T. (2009) *Making the organic food service chain work and survive*. Agronomy Research 7 (Special issue II), p. 618–624.

Kristensen, N.H., Hansen, M.W. and Nielsen, T. (2010) *innovative Public Organic food Procurement for Youth (iPOPY). Lessons learned from implementing organic into European school meals – policy implications*. In: Strassner, C.; Løes, A.-K.; Nölting, B. and Kristensen, N.H. (Eds.) *Organic Food for Youth in Public Settings: Potentials and Challenges. Preliminary Recommendations from a European Study*. Proceedings of the iPOPY session held at BioFach Congress 2010. CORE Organic Project Series Report. ICROFS, CORE Organic Project Series Report, Tjele, Denmark.

Løes, A.-K. and Nölting, B. *Increasing organic consumption by school meals – lessons learned in the iPOPY project*. Paper submitted to the scientific journal *Organic Agriculture* (Springer) on August 26, 2010.

Marley, E.K. (2008) *Food for Thought. Introducing Organic Food in Norwegian Schools*. Master Thesis, Centre for Development and the Environment, University of Oslo, Norway

Mikkola, M. (2009a). *Shaping professional identity for sustainability: Evidence in Finnish public catering*. *Appetite* 53 (1), pp. 56-65.

Mikkola, M. (2009b). *Catering for Sustainability: Building a Dialogue on Organic Milk*. *Agronomy Research* 7 (Special issue) (2), pp. 668-676.

Morgan, K. And Sonnino, R. (2008) *The school food revolution. Public food and the challenge of sustainable development*. Earthscan, London.

Post, A. & Mikkola, M. (2010). *Nordic stakeholders in catering for sustainability: chasm between ideology and practice?* Resubmitted in revised version to British Food Journal.

Risku-Norja, H. & Mikkola, M. (2009). *Systemic Sustainability Characteristics of Organic Farming: A review*. *Agronomy Research* 7 (Special issue) (2), pp. 728-736.

Roos, G. and Mikkola, M. (2009) *The iPOPY project and how to communicate with the young generation*. 1st Nordic organic conference: towards increased sustainability in the food supply chain, Gothenburg, Sweden, 18-20 May 2009, proceedings p 55-57.

Roos, G. and Mikkola, M. (2010) *Education about organic food and sustainability in Denmark, Finland, Italy and Norway. Findings from the iPOPY project*. Project report no. 9 – 2010. SIFO, National Institute for Consumer Research, Oslo, Norway.

Spigarolo R, Sarti V, Giorgi, G (2010) *Organic and conventional public food procurement for youth in Italy*. Bioforsk Report Vol. 5 No. 109/2010; iPOPY discussion paper 4/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway.

Strassner, Carola (2009) *Certifying Out of Home Operators in Europe. European Forum for Certification. Summary of a Forum held at the BioFach Congress 2009*. CORE Organic Project Series Report. ICROFS, Tjele, Denmark.

Strassner, C.; Lukas, M. and Løes, A.-K. (2010) *Certification of public organic procurement in Denmark, Finland, Italy and Norway as compared to Germany*. Bioforsk report Vol. 5 No. 103/ 2010; iPOPY discussion paper 5/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway.

Willer, H. and Kilcher, L. (Eds.) (2010) *The World of Organic Agriculture. Statistics and Emerging Trends 2010*. IFOAM, Bonn and FiBL, Frick

1.2 Fulfillment of objectives

The project studied several aspects of a very practical research question: How to increase the consumption of organic food in public serving outlets for young people. The research carried out covers the main aim as well as the specific objectives; there is no specific objective that has not been studied.

In addition to the project objectives, the project proposal emphasized that all WPs would conduct research in all participating countries, and that one or more papers in peer-reviewed journals would be submitted from all WPs. We also promised to publish papers in technical and trade journals, in English but also in other languages, and to present results in relevant conferences. To increase the contact to relevant users, national user groups should be established, and seminars arranged by the project team in various countries.

The aim that all WPs should study their research questions in all countries was too ambitious if this aim is interpreted as if all countries should be studied in the same detail and to the same extent in all WPs. Research questions from all WPs have been studied in all countries, but most thoroughly in the countries where the WP leaders and other intensively involved colleagues have been located. A significant publishing activity in Italian and German has occurred in parallel to the deliverables in English. For Finland, Denmark and Norway the number of papers in the national languages is much lower, but actors involved in public food procurement and the organic sector in these countries are usually familiar with English. The team has been very actively participating in relevant conferences, especially presenting results from WP4 and 5. By the completion of the final report, papers in peer-reviewed journals have been published from WP1, 2 and 4, and additional papers are submitted from WP1, 3, 4 and 5. Three further papers (WP2, 3 and 4) are under way and will be submitted within the end of 2010.

2. Milestones and Deliverables status

Milestones:

Milestones added to the initial plan are explained in italics

The WP mentioned in the column "WP" shows which was the responsible or most active to arrange. In the seminars, results from several WPs were usually presented.

NP = national project leaders (see milestone no 3)

Milestone no:	WP	Description	Planned time	Actual time
1	WP1	Project starts. WP leaders include co-workers in detailed planning.	June 2007	June 2007
2	All WP1	1st project meeting Develop common analytical framework.	Sept 2007	Sept 2007
3	NP WP1	National user groups established. Website and 1 st newsletter launched.	Nov 2007	Dec 2007- May 2008
4	WP1, 2 All	<i>Open seminar, Germany (linked to Biofach) Project meeting, Germany</i>		<i>Feb 2008</i>
5	WP3 WP1	Open seminar, Italy (linked to OWC, Modena) Project meeting, Italy	Feb 2008	June 2008
6	WP1	Reporting year 1, revision of plans	June 2008	July 2008
7	WP4	Open seminar, Finland	Nov 2008	Jan 2009
8	WP1	Open seminar, Germany (linked to Biofach) Project meeting, Germany	March 2009	Feb 2009
9	WP1	Reporting year 2, revision of plans <i>(The CORE coordinator asked for a popular abstract, replacing this more formal reporting)</i>	June 2009	<i>Jan 2010</i>
10	WP1	<i>Mid-term reporting</i>	<i>June 2009</i>	<i>July 2009</i>
11	WP5 All	Open seminar, Denmark <i>Project meeting, Denmark</i>	Oct 2009	Nov 2009
12	WP3,1	<i>Open seminar, Germany (linked to Biofach)</i>		<i>Feb 2010</i>
13	WP3	<i>Open seminar, Italy</i>		<i>May 2010</i>
14	All	Drafts of manuscripts of scientific papers submitted to all co-workers	Feb 2010	July 2010
15	WP1 All	Open seminar, Norway Final project meeting, Norway	May 2010	Sept 2010
16		All publications submitted. Project evaluation.	June 2010	<i>By May 12, 2011, three pending papers (WP 2, 4)</i>

Deliverables:

A list of deliverables (1-20) was developed for the mid-term report, and later extended. The funding bodies commented that the project team should emphasize peer-reviewed papers and papers in national trade journals in the last half of the project period. Seminar and conference activities and newsletter publication were regarded as satisfactory. Experiences with the first issue of the newsletter showed that the resources to publish parallel editions in English and national languages were not justified so later editions were in English only. However, the final leaflet with recommendations for different target groups (del. 23) and the final deliverables from WP3 (del. 24) will be published in parallel versions in English and Italian. For the final report, the list of deliverables has been extended and amended.

Deliverable no/ reference number in Organic E-prints:	WP	Description	Planned time	Actual time
1/ http://orgprints.org/17430	1	Peer-reviewed paper: Løes, A.-K. & Nölting, B. 2011: Increasing organic consumption through school meals—lessons learned in the iPOPY project. Organic Agriculture, in print, available at DOI 10.1007/s13165-011-0009-0	June 2010	Submitted Aug 10, accepted March 2011, in print
8	1	Open seminar, Biofach	Feb 08	Feb 09
10/ http://orgprints.org/15302	1	Report about constellation analysis (analytical framework)	Dec 08	Jan 09
11/ http://orgprints.org/15540	1	Seminar with proceedings, Biofach	Feb 09	Feb 2009
13/ http://orgprints.org/16883	1	Seminar with proceedings, Biofach	Feb 10	Feb 10
17	1	Seminar with proceedings, Norway	May 2010	Sept 2010, no proceedings
18	1	Newsletter in English, available at the iPOPY website, www.agrsci.dk/ipopy	5-6 per year	Totally 12 issues
		Issued Nov 19/07, Feb 14/08, April 8/08, July 7/08, Oct 7/08, Dec 17/08 March 24/09, June 29/09, Aug 21/09, Oct 15/09, Dec 14/09, March 19/2010		
26/ http://orgprints.org/17333 , http://orgprints.org/17411 , http://orgprints.org/17412 , http://orgprints.org/17413	1 + authors	Revised versions of national reports (see del. No 7)	May 2010	Revised versions Aug 2010
7/ http://orgprints.org/13346 , http://orgprints.org/13347 , http://orgprints.org/13348 , http://orgprints.org/13349	2,1 + authors	National reports about school meal systems	Dec 07	Feb 2008, Revised versions Aug 2010, see 23
9/ http://orgprints.org/16670	2	Comparative analysis of school meal systems	Feb 09	nov-09
19/ http://orgprints.org/14871	2	Bachelor thesis DTU, Hansen, S.R. and Schmidt, H.W.	Oct 2008	Oct 2008
2	2	Peer-reviewed papers	June 2010	Pending
		Nielsen, T., Kristensen, N.H., Hansen, M.W., Løes, A.-K. Netterstrøm, S., Mikkola, M. Organic school food in four European countries. To be submitted to Food, Culture & Society during November 2010. Nielsen, T., Kristensen, N.H., Mikkelsen B.E. Danish experiences with use of organic food in institutions. To be submitted to Sociologia Ruralis during December 2010.		
3/ http://orgprints.org/17538	3	Peer-reviewed paper supply chains	June 2010	Submitted Aug 18, 2010
4/ http://orgprints.org/18784	3	Peer-reviewed paper: Lukas, M., Strassner, C and Løes, A.-K. Certification of organic mass catering - a need for harmonization across Europe? Accepted by Organic Agriculture, resubmitted after review on March 18, 2011	June 2010	Accepted, resubmitted on March 18, 2011
25/ http://orgprints.org/17414	3	Diploma thesis UASM, Nicole Hedebur	July 2010	July 2010

Deliverable no/ reference number in Organic E-prints:	WP	Description	Planned time	Actual time
27/ http://orgprints.org/17158	3	Certification report	May 2010	Aug 2010
28/ http://orgprints.org/17618/ , http://orgprints.org/17622/ , http://orgprints.org/17623/	3	Three reports about supply chain issues in Italy: Analysis of tender contracts; users' (pupils and parents) satisfaction with school meals and case studies.	May 2010	Oct 2010
11/ http://orgprints.org/15203	3,1	Workshop with proceedings, OWC, Modena, Italy	WS June 08, proc. Dec 2008	WS June 08, proc. Jan 2009
16	3	Seminar, Italy	May 2010	May 2010
23/ http://orgprints.org/17475	3	Bachelor thesis UASM, Angelika Rolf	Sep 09	Sep 09
20/ http://orgprints.org/14730	4	Master thesis Uni. of Oslo, Marley, E.	June 2008	June 2008
5	4	Peer-reviewed papers 1) Mikkola, M. and Roos, G. Young people's perspective on organic food in Finland and Norway: a transformative approach. Submitted to Appetite in December 2010, accepted, under review. 2) Roos, G. and Mikkola, M. Evolving school meals, food culture and spaces for organic food. To be submitted to Anthropology of Food, by Sept 2011.	June 2010	1) Accepted March 2011, under revision 2) Will be submitted by Sept 1, 2011
29/ http://orgprints.org/18785	4	Social dynamics for sustainable food systems. Actors' orientations towards sustainability in primary production and public consumption. Doctoral thesis, University of Helsinki.		Defended and accepted April 2011
22/ http://orgprints.org/15303	4	Bachelor thesis Akershus univ. College, Helene Sørum	Sep-08	Sep-08
24	4	Master thesis Akershus univ. College, Helene Sørum	Sep-10	Dec-10
10 / http://orgprints.org/15275	4	Seminar with proceedings, Helsinki, Finland	Jan-09	Jan-09
21/ http://orgprints.org/14573	5	Master thesis DTU, He, C.	Nov-08	Nov-08
6/ http://orgprints.org/17422	5	Peer-reviewed paper	June 2010	Submitted Aug 12, 2010 <i>Rejected</i>
12/ http://orgprints.org/16799	5	Seminar with proceedings, Denmark	Nov-09	Nov 2009, final proc. Feb 2010
14/ http://orgprints.org/17144	All	Paper in International Innovation (3 p)	May 2010	May 2010
15/ http://orgprints.org/17382	All	Final recommendations, leaflet (8 p, English + Italian)	May 2010	May 2010

Additional comments (in case of major changes or deviation from the original list)

The status of the pending peer-reviewed papers was updated on May 12, 2011.

No proceedings were made from the final open seminar in Oslo. The reason was that all results had already been published in available former reports, submitted papers and papers that will soon be submitted.

In addition to the deliverables listed above, a range of reports, papers in conference proceedings (partly peer-reviewed), trade journals and web portals as well as papers about the project and its results written by others have been produced. The large majority of this has been uploaded to Organic E-prints.

3. Work package description and results:

WP 1	Project management, conclusions and knowledge diffusion
Responsible partner: Partner 1, Bioforsk, Anne-Kristin Løes	
Description of work (from the proposal): WP1 will ensure that the project is carried out as described within the assigned time period and funding. A common analytical framework will be produced, where relevant factors for the degree of success of POP can be discussed and evaluated by all WPs, as well as a scientific paper synthesising results from WP2-5. WP1 will provide relevant information about the project in the national languages, take care of the project website, produce a regular web-based newsletter for POP stakeholders, and ensure that results are presented at national and international conferences. The selected cases studied in WP2-5 will be described in a common database maintained by WP1, to provide instructive examples. WP1 will arrange open seminars, nationally and internationally, where results are presented to important user groups and stakeholders, and networks are built.	
Initial statements: * Public procurement of organic food in serving outlets for young people is an efficient way to increase the consumption of organic food. * Difficulties linked to supply chain management, lack of knowledge and economic resources among important stakeholders, and complex public regulations hamper an increased use of organic food in public food serving outlets for young people.	
Final activity report: A- work carried out and results obtained: The leader of WP1 was also the project leader of iPOPY. The coordination work consisted of initiating and keeping the overview of the project activities and deliverables, facilitating and maintaining communication within the project group and designed target groups, and ensuring a satisfactory working progress. Participating institutes from member countries have devoted some additional funding to the project to extend the deliverables and output. In general, most of the deliverables proposed in the original application have been accomplished within the given time frame. Further publishing is to be expected as all researchers are still active within the field of organic food systems research. A common definition of the terms in the project title developed by WP1 was very useful (Nölting et al., 2009). In the last phase of the project, WP1 was responsible for the production of a 8 pages leaflet with recommendations for our most important target groups; policy makers, caterers, school staff, parents and pupils (Nölting and Nymoen, 2010). The leaflet was translated to Italian for the final project conference in Bologna, May 2010. Based on the knowledge achieved during the project work (paper results and reports from WPs 2-5), a synthesising paper was submitted to the scientific journal "Organic Agriculture" (Springer) in August 2010. In this article were discussed the assessment of school food systems and implementation of organic food; specifically, five categories described the main dimensions of variation: type of school food service, degree of public financing, degree of political and administrative involvement in school food procurement, degree of specific support for organic school food and degree of development of organic food supply. To maximise the consumption of organic food in schools, the school meals should be complete, served without user payment, well embedded in public regulations and nutritionally balanced, with a high share of organic ingredients in a marked with well developed supply chains for organic school catering (Løes and Nölting, submitted). The communication of project results has been well ensured by several contributions to international conferences (organised in all participating countries including Germany); papers were published in proceedings in the CORE Organic Project Series Report, in trade journals, newspapers and web portal article A project newsletter comprising totally 12 issues has been regularly launched and available at the iPOPY website www.agrsci.dk/ipopy . To maximise the share of organic food in school meals, comprehensive strategies are needed because organic school food serving is a very complex issue. Strategies and instruments for public	

procurement of organic food have the largest potential to increase organic food consumption when they are constantly matched with the broader concept of sustainable nutrition. A limited focus on organic food may be too narrow for actors and stakeholders being responsible for procuring school food, which is a very complex issue. For this reason, POP concepts should be integrated into a whole school approach and into policies for public sustainable nutrition as additional strategic domains. On the one hand, organic food is a pillar of sustainable nutrition at school – like local food, fair trade, food education and health. On the other hand, the “philosophy” of sustainable nutrition may be well explained by organic examples, messages and its visibility in the school food system.

B- comments on deviations from the original plan: Resources were devoted to develop a common analytical framework, based on the method of constellation analysis (Nölting et al. 2009), which has been useful to understand relevant cases in different countries. However, each WP developed their own theoretical basis and the common analytical framework was of limited use for scientific publications. Similarly, the idea of a common database describing relevant cases was not fruitful in practice, and after some trials to agree about a common outline and report relevant cases, this activity was closed.

Referred literature:

Løes, A-K. and Nölting, B. *Increasing organic consumption by school meals – lessons learned in the iPOPY project*. Organic Agriculture, DOI 10.1007/s13165-011-0009-0

WP 2	Policy analysis,
Responsible partner: Partner 3, AAU, Niels Heine Kristensen	
Description of work (from the proposal):	
<p>WP2 will analyse national and relevant local policies and instruments used in DK, FI, IT and NO to introduce or increase the share of organic food in public food serving outlets for youth, and to evaluate the outcome of these policies and instruments. This includes top-down policies as well as more “soft” regulatory, informational, and network initiatives that bring together civil society, market and national policies. The measure for evaluation will be the extension of the organic food consumption in each country, especially within POP for young people. WP2 will also assess how or to what extent general public aims such as sustainability, public health and food culture are integrated in POP policies, and analyse under what conditions POP will be a successful strategy to increase the consumption of organic food in a country. These findings construct the research basis for policy recommendations that will be developed for relevant decision makers in touch with POP.</p>	
<u>Initial statements:</u>	
<ul style="list-style-type: none"> - National and regional POP policies tend to have unclear goals and means. - National POP policies and instruments have a higher impact when political decision makers, proactive bureaucracies, as well as supply chain actors are involved and engaged. - Comparisons between countries and the transnational project cooperation will produce knowledge useful in the design of new strategies and instruments on European, national and local levels. 	
<u>Research methods:</u>	
<p>The research will be based on quantitative and qualitative data. Guidelines for data collection will be made and data collected by partners in DK, NO, FI and IT, in coordination with other WPs. Data collection comprises literature, questionnaires, in depth- and group interviews with key persons and decision makers in POP projects, public programmes and in the supply chains. All WP2 partners will be supervised by the WP2 leader to produce a national report on POP policies and strategic challenges for the development of POP. A comparative analysis will define strong and weak points in the identified (national, regional, local) strategies.</p>	
Final report on work	
<p>Note: this should cover the whole project duration, and should indicate any changes made to the plan, including in relation to deliverables and milestones.</p>	
A- work carried out and results obtained:	
<p>By writing (4,5,6,7) and analyzing national reports from each iPOPY country (DK, FI, IT, NO), the project has collected, systemized and analyzed how school meal systems in are organized and how (much) organic food is integrated in these systems. This basic work was performed on the basis of a methodology developed in WP2 with the aim of establishing a comparative data material</p>	

for the iPOPY countries. There is a huge variation among the school meal systems in the iPOPY countries, and the degree to which organic food is integrated. Finland and Italy both have a long tradition for serving warm school meals to all pupils every day. Italy is a pioneer in Europe to use organic and local products in school meals, whereas in Finland, both economy and lack of interest restrict the use of organic products in school meals. In Denmark and Norway, children bring a packed lunch and subscribe to milk and fruit served at school. This pattern is slowly changing, and publicly organised food provision is increasing, especially in Denmark. Some Danish municipalities, such as the capital of Copenhagen, Roskilde and Gladsaxe have developed large school meal programs with ambitious aims of organic food consumption. However, as the food is not free, it is a large challenge to attract the interest of the children and the number of users is usually below 25 % of the pupils. Norway was the first European country to introduce a daily free school fruit scheme in public schools. Good arguments for this decision were found in an intervention study documenting a long-lasting increase in daily intake of fruit and vegetables after pupils had had a period of free fruit serving at school. The school meal systems in the four iPOPY-countries and Germany are further discussed by Noelting et al. (10). From the national reports we find that the Italian state and a number of regional governments in Italy have developed policies, aims, strategies and routines concerning the provision of organic and locally produced school food. Towards the end of the project, the national reports were revised and updated (12,13,14,15).

The research in WP 2 was based on studies of school food policies in Denmark, Finland, Italy and Norway, and the data came from literature studies, national statistics and ten qualitative case studies in ten selected municipalities with experiences in organic school food. The case studies were carried out by individual face-to-face interviews, observations and telephone interviews. Four municipalities were studied in Denmark, three in Italy, two in Finland and one in Norway.

Findings

- School food services are relatively widely embedded in the school systems in Finland and Italy (historically and regulatory) (6,9)
- In Denmark and Norway, school food is predominantly defined by the packed lunch brought from home. Typically the school food initiative is embedded in the municipalities in these countries (local traditions and policies) (1,5,7)
- Concerning organic food Italy is hardly regulated. In many regions, the schools are forced to use either organic, local or ethical (e.g. fair trade) foods. Still the regulative is uneven implemented. (1,6)
- Copenhagen and six other “Agenda 21-cities” are aiming at 75% organic foods ion all institutions in 2015 (1,7)
- In Finland and Norway the attention is very much focused on local production. In Finland there exist only a few organic committed local actors. (4,5)
- In Denmark and Norway we have seen increasing political involvement in organic public procurement (economically, etc) (1,5,7)
- We have found differences in the degree of embeddedness in food traditions and cultures. In Denmark organic food production is relatively well embedded in the general school food context, while the concepts of safety, nutrition (and food culture) are high on the Italian agenda.
- A complexity is found in implementing organic food in existing school food aims, in embedding school food policies and comprising also aims and policies for organic food purchasing in these. (9,11)
- Strategies and success criteria are identified, covering both structural and stakeholder related findings. A major finding is pointing at the challenge of “multi-embedding” processes when including organic food in school meal procurement. (1,9,11)

Conclusions

- The research project iPOPY has analyzed the policy processes of the organic school food systems in the four countries Italy, Finland, Norway and Denmark. The *overall conclusions* from this study are that organic food have a potential in school meals but it is challenged by:
 - “double-embedding” processes in Denmark and Norway (food systems and organic) (9,11)
 - “single-embedding” processes on organic in Italy (9,11)

- “scattered/minor embedding” processes on organic in Finland (9,11)
- The *complexity of school food systems*, where different countries have various approaches and many actors are involved, demands that that a fruitful discussion to address e.g. obesity and health problems among children (WP5) should build on some analytical understanding of the many different aspects and cultural meanings of the school food system. (1,3)

Recommendations

- Introducing organic food in public school meals *is not done by a simple product replacement* - It is necessary to address also legal issues, price premium issues, structural issues, sourcing issues, social issues, etc
- Development of a “whole school approach” and *the curricula of the schools* should be considered for embedding organic food in these approaches which strive for coherence of the school's policies and practices
- Successful embedding of organic food has to be *carefully synchronised with other agendas* on the local, municipal, (provincial), regional and state level, and also European conditions and policies must be taken into consideration
- Establishing a *transition process tailored towards the relevant social actor networks is crucial to a successful embedding process*. For example high level decision makers can facilitate the process by eliminating barriers (economic, formal, legal, bureaucratic etc)
- *Involving the most relevant user groups in the schools* (pupils, parents, school personnel, municipal administrative staff) at relevant stages of the development and operation of organic school meal schemes have a positive and proactive effect on the embedding of organic food in school meals. Engaging for example parent groups can establish a very important local ownership. Also the teachers’ commitment can be activated through careful coordination with home economics and networking with other teachers
- *Systematic regulatory efforts are very helpful* as shown in Italy. The assessment of the implementation should also be carefully planned into this effort, using relevant constructive instruments to support the progress of implementation and the building of commitment. (1,3,9)
- *School external agendas can be supportive to include in the embedding task*. For example, close cooperation or partnerships with local organic producers may support both cultural, social and other inclusive embeddings. (9,11)

B- comments on deviations from the original plan:

One per reviewed article from WP2 has been published (1) and two are in process. “Organic school food in four European Municipalities” using theory from Governance literature (Nielsen, Kristensen, Hansen, Løes, Netterstrøm and Mikkola), and “Danish experiences with use of organic food in institutions” combining WP 2 data with other Danish projects in the field and discussing the notion “Ecological Modernisation” (Nielsen, Kristensen and Mikkelsen).

Referred literature:

1. Kristensen NH, Netterstrøm S, He C, Mikkelsen BE, Nielsen T (2009): Making the organic food service chain work and survive. *Agronomy Research 7* (Special issue II), p. 618–624.
2. Mikkelsen, B.; Kristensen, N.H.; Nielsen, T. (2005): Innovation processes in large-scale public foodservice – Case findings from implementation of organic foods in a Danish county, in *Journal of Foodservice Business Research*, Vol.8 (2)
3. Nielsen, T.; Nölting, B.; Kristensen, NH.; Løes, A-K. (2009): A comparative study of the implementation of organic food in school meal systems in four European countries, *Bioforsk Report Vol 4 no 145 2009, iPOPY discussion paper 3/2009*, Bioforsk Organic Food and Farming, Tingvoll, Norway.
4. Mikkola, M., 2008: Organic and conventional public food procurement for youth in Finland. Bioforsk Report Vol. 3 No. 41 2008, iPOPY discussion paper 2/2008, Bioforsk Organic Food and Farming, Tingvoll, Norway.
5. Løes, AK, M. Koesling, G. Roos, L. Birkeland and L. Solemdal 2008: Organic and conventional public food procurement for youth in Norway., Bioforsk Report Vol. 3 No. 43 2008, iPOPY discussion paper 4/2008, Bioforsk Organic Food and Farming, Tingvoll, Norway.
6. Bocchi, S., R. Spigarolo, N. Marcomini and V. Sarti 2008: Organic and conventional public food procurement for youth in Italy. Bioforsk Report, Vol. 3 No. 42 2008, iPOPY discussion paper 3/2008, Bioforsk, Tingvoll, Norway.
7. Hansen, S. Rosenlund; H. W. Schmidt, T. Nielsen and N. H. Kristensen 2008: Organic and conventional public food procurement for youth in Denmark. Bioforsk Report Vol. 3 No. 40 2008, iPOPY discussion paper 1/2008, Bioforsk Organic Food and Farming, Tingvoll, Norway.
8. Nielsen, Thorkild; Kristensen, Niels Heine and Mikkelsen, Bent E. (2009) Ecological modernisation in the public catering sector. Danish experiences with use of organic food. BioFach 2009, GastroForum, Nuremberg, Germany, 20 February 2009. In: Nölting, Benjamin (Ed.) *Providing organic school food for youths in Europe* -

Policy strategies, certification and supply chain management in Denmark, Finland, Italy and Norway. Proceedings of the iPOPY seminar held at the BioFach February 20th 2009 in Nuremberg, Germany, (ICROFS).

9. Kristensen, N.H; Hansen, M.W; Nielsen, T.: Lessons learned from implementing organic into European school meals – policy implications in Strassner, Carola; Løes, Anne-Kristin; Nölting, Benjamin and Kristensen, Niels Heine (Eds.) (2010) Organic Food for Youth in Public Settings: Potentials and Challenges. Preliminary Recommendations from a European Study. Proceedings of iPOPY session held at the BioFach Congress 2010, Nuremberg, Germany, February 20, 2010. ICROFS, International Centre for Research in Organic Food Systems, Tjele, Denmark.
10. Nölting B, Reimann S, Strassner C (2009b) Bio-Schulverpflegung in Deutschland – Ein erster Überblick. Berlin, Centre for Technology and Society TU Berlin (ZTG discussion paper 30/09)
11. Nielsen, T.; Hansen, M.W., Kristensen, N. H.: National strategies for organic supply in healthy school food systems – Results from policy analysis in four iPOPY countries in Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoen, Lena Lie (Eds.) (2010) Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark
12. Hansen, SR, Nielsen T, Kristensen NH (2010) Organic and conventional public food procurement for youth in Denmark – a national overview. Bioforsk Report Vol. 5 No. 113/2010; iPOPY discussion paper 6/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway
13. Løes, A-K (2010) Organic and conventional public food procurement for youth in Norway. Bioforsk Report Vol. 5 No. 110/2010; iPOPY discussion paper 7/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway
14. Mikkola, M (2010) Role of public catering and use of organic food in educational contexts: Creating centres for sustainable food systems. Bioforsk Report Vol. 5 No. 104/2010; iPOPY discussion paper 3/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway
15. Spigarolo, R, Sarti V, Giorgi, G (2010) Organic and conventional public food procurement for youth in Italy. Bioforsk Report Vol. 5 No. 109/2010; iPOPY discussion paper 4/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway

WP 3 | Supply chain management and certification

Responsible partner: Partner 4, UniMi, Stefano Bocchi and Roberto Spigarolo

Description of work (from the proposal)

WP3 will analyse the relative success and failure of various relevant supply chains in DK, FI, IT and NO, and reveal critical constraints for their efficiency. The key criteria for appointing a supplier will be identified, and we will study the impact of such criteria on the development of relationships between supply chain members. A number of case studies will be analysed to identify supply chain models and their structure. Specific requirements for organic products in public procurement systems (e.g. package size, quality) will be discussed. WP3 will also review and analyse procedures for certification of food serving outlets in DK, FI, IT, and NO; and in DE as a reference country, to propose certification procedures adapted to general European conditions.

Initial statements:

- The organic food industry is emerging, and hence POP is confronted with organisational and informational problems, lack of experience, and lack of motivation among stakeholders. Many problems can be overcome when POP gets more common, and supply chain management adapts to this. However, the early introduction of organic food in any serving outlet needs 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 POP.
- 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.

Research methods:

Supply chain information will be collected by questionnaires among catering staff, producer organisations etc. Trends and expectations will be analysed by in-depth and focus group interviews with relevant stakeholders. Specific requirements for organic products will be discussed with relevant stakeholders. Relevant information about the procedures for certification will be reviewed by the national WP3 representative in DK, FI, IT and NO, after an initial review of the situation in

DE and a list of relevant questions has been produced by C. Strassner. Interviews with relevant stakeholders will be required to reveal attitudes and strategies towards certification.

Final report on work carried out and results compared to the original plan/WP aims:

A- work carried out and results obtained:

NB: The certification part is described separately below

Analysis of municipal tenders in Italy

The analysis of the relative success and failure of various relevant supply chains and the resulting detection of the critical constraints for their efficiency was carried out during the last 18 months of the project. Specific requirements for organic products in public procurement systems were discussed in this research.

In the end of 2009 and first half of 2010, WP3 started the complex activity of analyzing tenders published by 100 different Italian municipalities, supported by external experts. This huge amount of data and information was studied by three points of view: analysis of the procurement policies, weighing price and quality, and evaluation of quality aspects. Regarding the analysis of the procurement policies, fruits and vegetables were required in organic quality in nearly 50% of the tenders. For dairy products, milk and yoghurt were often required in organic quality, whereas cheese was especially required as typical products (PDO and PGI). For meat and byproducts, organic quality was seldom required, but products from short chains and typical products (PDO and PGI) were important. A lot of cereals and pulses were required as organic. Organic rice, pasta, barley and bread were mentioned most often. The interest for local products (short chain) is diffused in many calls of tenders, in few cases as a compulsory requirement but often as a not-compulsory one (about ¼ of the cases). Regarding weighing price and quality, on average 52% of the scores were devoted to the price and 48% of the scores to various quality aspects. Regarding the evaluation of the quality aspects in the tenders different aspects were analysed, dividing them in two categories: the aspects related to the *quality of the products* (organic, short chain, quality/typical, integrated/sustainable agriculture, fair-trade) and the other related to the *quality of the service*: the quality certifications held by catering companies, food educational programs, the quality and the frequency of staff training and the structural improvement of school canteens. (Bocchi and Spigarolo, submitted; Spigarolo et al., submitted a).

The tenders are an important driver for improving the quality of the public procurement, achieving the political will of the municipalities and defining the key criteria for appointing a supplier. Because far more organic food is consumed in school meals in Italy than in any other iPOPY country, and the tender contracts are much more developed in Italy, the survey of tender contracts was only carried out in Italy. Anyway, the methodology and the results of this large survey represent a useful tool also for other countries.

Case studies of supply chain models in Italy and Finland

In 2010, five municipal case studies (Roma, Argelato, Torino, Sesto San Giovanni and Piacenza) were analysed in depth in Italy to identify supply chain models and their structure. The cases were compared with two Finnish case studies (Vantaa and Helsinki) in collaboration with Minna Mikkola. Italian systems have more detailed rules about food procurement since every municipality establishes its own requirements within tender for contracts. Finnish systems allow schools managers to choose food procurement. Both systems need more cooperation between producers and caterers. In Italy, food education programs dealing with organic products are better defined than in Finland. In Finland there is a more active interaction of children during the lunch (self service and participations to food service) than in Italy. Piacenza has got the best system of food procurement since it is mainly based on local and organic products and as a consequence it has a low negative environmental impact (Bocchi et al., 2009; Spigarolo et al submitted b).

Supply chain studies were also carried out in Norway, using the organic school milk service in Trondheim municipality as a case (Løes and Bårdsen 2009; Bårdsen and Løes 2010) and in Denmark, linked to the municipal case studies in WP2 (Nielsen et al, submitted). Challenges linked to increasing the supply of organic food to schools and kindergartens are described.

The perceiving of school meals in Italy- users' satisfaction

In addition to the activities described in the original proposal, WP3 also carried out a study of users' satisfaction and knowledge about organic school food in Italy, in collaboration with WP4. Three questionnaires were developed, for children of primary schools, students of lower secondary schools and teachers and parents. The questionnaires were submitted to about 6.500 children/students and 1.000 adults in 40 municipalities all over Italy. The aim was to investigate how food quality is perceived in school canteens, concerning the knowledge of quality and sustainability of canteen products, non-food aspects of the service (e.g.: staff management, canteen environment), the satisfaction level and possible/necessary improvements. The users of the school meal service were generally well informed about the characteristics of the products. 90% of those who declare to know organic farming actually have a correct idea of it. On the other side, there is a significant lack of information causing a gap between service management and service users; as users are not enough aware of the key characteristics of the canteen service. This study is described in a report that will soon be published in the CORE Organic Project Series Report (Spigarolo et al, submitted, c). The results of this research are very useful for WP3 because the opinions of the users and the analysis of the customer satisfaction are important driver influencing the policies of the municipalities.

Final conference in Bologna – conclusions about the Italian situation

In May 2010, WP3 arranged an important conference in Bologna to present experiences of sustainable school catering systems in Europe. The conference was attended by a large number of Italian stakeholders, around 75 people, especially municipal managers, caterers and producers.

From WP3 studies it emerges that the trend to reduce the conventional food in school canteens and to increase the consumption of quality foods (organic, but not only) continues in Italy. There is an increasing interest in the quality of the environment of the canteens, and of procuring local products to save the environment. Important aims to be achieved are a closer relationship among stakeholders (producers, caterers and schools) and a better integrated approach to supply chains. This relationship can be promoted in the best way by a local authority, like a province or a region, or by a certification body, which can invite to a common round table all school meal system actors such as producers, caterers and municipal managers.

B- comments on deviations from the original plan:

No comments.

Referred literature:

Bocchi, S., Spigarolo, R., Sarti, V. and Nölting, B. (2009) *Organising supply chains of organic products for Italian school meals - The case of the province and of the city of Piacenza*. In: Nölting, B. (Ed.) *Providing organic school food for youths in Europe - Policy strategies, certification and supply chain management in Denmark, Finland, Italy and Norway. Proceedings of the iPOPY seminar held at the BioFach February 20th 2009 in Nuremberg, Germany*. CORE Organic Project Series Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark. pp. 23-29.

Bocchi, S. and Spigarolo, R. *The school meal system: analysis of calls for tender as a tool for improving quality*. Paper submitted to the scientific journal Food policy (Elsevier) on August 20, 2010.

Bårdsen, M.G. and Løes, A.-K.(2010) *Organic food in schools and kindergartens in Trondheim. A case study report*. Bioforsk Report Vol. 5 No. 18 2010, iPOPY discussion paper 1/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway.

Løes, A-K and Bårdsen, M.G. (2009) *Mer økologisk skolemelk i Trondheim!* [More organic school milk in Trondheim! In Norwegian] Økologisk landbruk (4) p 39-41.

Nielsen, T., Hansen, S.R., Hansen, M.W. and Kristensen, N.H. (2010) *Økologisk skolemad – betingelser for de økologiske leverandører*. [Organic school food - conditions for the organic suppliers. In Danish.] Submitted to *ICROFS news*, ICROFS, Tjele, Denmark.

Spigarolo, R, Sarti, M.V., Bocchi, S. and Giorgi, G. **a**. Main constraints in developing public organic procurement. CORE Organic Project Series Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark, ISBN 978-87-92499-11-0. <http://orgprints.org/17618/>

Spigarolo, R, Sarti, M.V., Bocchi, S. and Giorgi, G. **b** *School catering supply chains: Study on five cases*. CORE Organic Project Series Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark. ISBN: 978-87-92499-12-7. <http://orgprints.org/17623/>

Spigarolo, R., Donegani, G., Giorgi, G. and Sarti, M.V. *c Differences between real and perceived quality among users of school catering – survey on 40 Italian schools*. CORE Organic Project Series Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark. ISBN 978-87-92499-13-4. <http://orgprints.org/17622/>

WP3, Certification studies

The certification studies in WP3 have been conducted by Dr. Carola Strassner in cooperation with Melanie Lukas at the UASM and the project leader. As a part of WP3, procedures for certification of food-serving outlets in DK, FI, IT and NO were compared and analysed, using DE as a reference. While Denmark has chosen government agencies to carry out the inspection and certification, Italy, Finland, Norway and Germany have chosen 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. (Strassner 2010 #17458; Strassner & Løes 2009 #17453; Nölting et al 2009 #14420).

The study of iPOPY-country certification bodies (i.e. DK, FI, IT, NO) reveals very different solutions to deal with the “non-regulation”. In Norway, the single national certification authority deals with the organic certification of out-of-home operations, and many units are certified. In Finland, the Finnish Food Safety Authority Evira refers to the Step-By-Step-Programme, but it is emphasised that there is no official regulation. In Denmark, a “Gold-Silver-Bronze”-model was established in January 2009 and is currently being rolled out. In Italy the focus is not on the certification of mass catering, but there are some initial activities to develop guidelines for organic certification. (Strassner & Lukas 2010 subm. #17449; Strassner & Roehl 2009 #16433; Strassner & Roehl 2009 #15542) From the interviews with iPOPY country professionals (i.e. DK, FI, IT, NO) it can be perceived that experts from Denmark and Norway, which have working systems and a clear public policy, are satisfied with their systems. Meanwhile the Finnish and Italian interviewees are more or less unsatisfied with their current situation; Finland having a working system but an unclear public policy (Lukas & Strassner 2010 subm. #17467). A comprehensive overview can be found in Strassner et al, 2010 (#17158).

As initially expected, common elements relevant for the certification of public procurement kitchens/catering units serving organic food were identified on a European level. The broad range of country conditions existing in this sector may explain why countries develop individual strategies but there are also a few points which are similar, such as the use of organic components in meals (Strassner & Lukas 2010 subm. #17449) This latter point is especially interesting, as it presents a solution clearly tailored to the unique points of catering and gastronomy, as oppose to inspection solutions for areas regulated so far (processors such as butcheries and bakeries). More details can be found in Roehl et al (2008).

Proposing specific new regulations for mass catering on the EU level for 27 Member States for was a too ambitious goal, given the great diversity in dealing with this area even among the 5 iPOPY countries. However, the situation in iPOPY countries and other European countries have been thoroughly studied (Strassner & Mikkelsen 2010 #17456; Strassner 2009 #17427, Strassner et al 2010 #16883; Strassner et al 2009 #15203) and the need for harmonised regulations is well documented (Lukas et al, in preparation for the journal *Organic Agriculture*; see list of deliverables section 2). Our survey among 17 European countries revealed that both certifying bodies and other experts called for a harmonisation of the EU regulations for organic production to also include mass catering, as long as such regulations would be flexible and allow for successful locally developed systems to adapt to the new situation (Lukas 2010 #17432).

As a German partner we contributed to the research on the school meal situation in Germany (Rolf 2009 #17475; Heidebur 2010 #17414; Lukas & Strassner 2009 #17455; Rolf & Strassner 2009 #17454; Strassner 2008 #17457; Strassner 2009 #17459; Strassner 2010 #17460; Nölting et al 2009 #17271; Nölting et al 2010 #17145; Strassner et al 2009 #17418) as well as to methodology

(Nölting et al 2009 #15302) and last but not least to dissemination (Lukas 2010 #17431; Strassner 2009 #17459; Strassner 2010 #17460; Løes et al 2008 #12447).

Referred literature:

#yyyyy refers to the Organic E-prints reference number. Full details are given in section 4.

Roehl R, Erhart A, Strassner C & Neuendorff J (2008) *Easy Steps to Organic Certification. A Manual for Canteens, Restaurants and Foodservice Operators*. Eds. a'verdis - sustainable foodservice solutions. 22 p. Available at https://www.fh-muenster.de/fb8/personen/profs/stra/stra_veroeff.php

WP 4 | Consumer perceptions, practices and learning

Responsible partner: SIFO, Gun Roos (sub-contracted by partner 1)

Description of work (from the proposal):

WP4 will provide new insights into young people's perceptions and practices related to organic food. Based on relevant cases in DK, FI, IT and NO, WP4 will study how organic ingredients are incorporated into meals in the school setting, and how this is communicated to the consumers. WP4 will explore the perceptions, satisfaction and practices linked to procurement and consumption of organic food among pupils, parents and professionals. Eating organic meals is not only a matter of nutrition, eating habits or menu design. It is also a matter of learning how to relate to sustainability. Organic food is connected to peoples' conception of sustainability, and WP4 will explore how young people's understandings of the ecological and social impacts of organic food are influenced by the introduction of organic food and relevant education in public serving outlets for youth.

Initial statements:

*A Selected organic ingredients are incorporated into traditional school meals rather than offering completely organic meals.

*B Participation of pupils and stakeholders in the shaping of organic meals increases the acceptance, implementation, consumption and learning potential linked to organic food in the school setting.

*C The introduction of organic school meals, accompanied by education, develops conceptions and a positive understanding of sustainability and healthy nutrition.

*D The captive catering approach in POP for youth may be an incentive for high quality meals and participatory learning processes, when appropriate external conditions are provided.

Research methods: WP4 will analyse young consumers' perceptions and practices related to organic food and procurement of organic ingredients for school meals in relevant cases. Data will be collected mainly by qualitative methods, including focus group interviews with pupils, interviews with key informants and observations in the school setting.

Final report on work carried out and results compared to the original plan/WP aims:

A- work carried out and results obtained:

The main objective of the work in WP4 was to explore perceptions, practices and learning of young people related to procurement and consumption of organic food. The plan was to study this based on relevant cases in DK, FI, IT and NO and to collect data mainly by qualitative methods, including focus groups, interviews and observations.

The conducted research:

a) Learning and education about organic food and sustainability

Curricula about sustainable development and organic food production and consumption, and examples of educational approaches, activities and material were collected from DK, FI, IT and NO and analyzed. The analysis of education about organic food and sustainability showed that organic food was not explicitly included in the learning objectives in the national curricula, but sustainable development was included. Various educational material and activities are available in the four countries in text books, leaflets and on the Internet. Farm-to-school programs and school gardens include experiential and educational activities, involvement, authentic learning experiences, and

the use of different senses. The countries where school meals are part of education (FI and IT) have one more arena where different issues related to food can be taught and learned (Roos and Mikkola, 2010).

A Master's thesis supported by iPOPY studied how organic food was introduced in Norwegian lower secondary schools, and showed that involving pupils and teachers and integrating organic food in the whole school setting was important for learning (Marley, 2008).

b) Perceptions and practices related to organic food

1. Young people:

Perceptions and practices related to organic food were studied based on qualitative case studies of public serving outlets for youth in FI (primary school, secondary school, vocational institute, university of applied sciences, university, congregation) and NO (music festival, Norwegian Defence). Data for the case studies were collected by qualitative methods, including focus group interviews with young people, interviews with key informants and observations. The case studies suggest that young people express positive perceptions of organic food in general (e.g. good for health, the environment and production animals, often but not necessarily better taste), but that there are ambivalences related to increasing their consumption such as high price, limited contextual and situational availability, the selection of organic not meeting one's fleeting everyday food desires, as well as reflecting and contesting evidence for organic being 'in reality' healthier, better for the environment and economically more just than other options). The way they talked about organic food as customers in public catering seemed to reflect that their perspectives were often far from being settled and would need considerably more evidence and transparency to enable justification and position taking (Mikkola and Roos, 2010; Roos and Mikkola, 2009).

2. Caterers:

Caterers' perceptions and practices were studied by coining the notion of professional identity for sustainability, which could be seen to support the use of organic and local food (Mikkola, 2009b).

The findings did correspond to evidence from European and American literature making it reasonable to assume more extended validity of the results. A test use of organic milk was organized as mediated dialogue between caterers and dairy marketers, which supported understanding of organic quality (Mikkola, 2009c). Caterers also seem to have a chasm between concepts and practice, and in need of particular technological and chain-based contextual support (Post and Mikkola, 2010).

A doctoral thesis was authored partly by iPOPY support about social dynamics for sustainability within production and public consumption (Mikkola, 2010a). In general, the results suggest that the stakeholders need to learn about the food system within their reach because this understanding is often rather limited, biased and without strategic edge in terms of sustainability. An overview of the research results of the Finnish situation was given by the final national report (Mikkola, 2010b).

3. Teachers:

Interviews with teachers in FI suggest that teachers have different orientations toward sustainable development and organic food, and only part of teachers are committed to this kind of education (Mikkola, 2009a).

In January 2009 WP4 in collaboration with WP5 arranged a seminar focusing on organic food, health and sustainability developments in schools (Mikkola et al. 2009).

B- comments on deviations from the original plan:

A. This theme has been covered by WP2 whereby the national reports describe how organic ingredients are incorporated into school meals in DK, FI, IT and NO. If organic share is rather low, it is reasonable to start with industrial and staples instead of whole meals.

B, C and D. The conducted research in WP4 has mainly focused on perceptions, practices and learning of young people and caterers and the educational system as well as teaching. Parts of WP4 research have been performed in all four countries, but because the main researchers involved in WP4 were from FI and NO the qualitative case studies have been limited to FI and NO. WP4 research has shown that participation of young people and stakeholders in shaping of organic meals has positive effects, and that a whole school approach develops perspectives and positive understanding. Experiences from FI and IT suggest that when school meals are part of education and served at school it may be an incentive for high quality meals and participatory learning. However, increasing understanding about organic food on scientific basis seems like a welcome orientation for young people, caterers and teachers.

Referred literature:

- *Marley, EK. (2008) *Food for Thought. Introducing Organic Food in Norwegian Schools*. Master Thesis, Centre for Development and the Environment, University of Oslo, Norway
- *Mikkola, M. (2009a) Teaching and learning about sustainability and organic food in Finnish schools – Sustainability vibrations across individuals and organizations. In: Mikkola, M., Mikkelsen, B.E., and G. Roos (Eds.) 2009. *Like what you get? Is it good for you? Organic food, health and sustainable development in schools*. Proceedings of the seminar held at University of Helsinki, Ruralia Institute 21.-22. January 2009, Helsinki, Finland. Pp. 15-21.
- *Mikkola, M. (2009b). Shaping professional identity for sustainability: Evidence in Finnish public catering. *Appetite* 53 (1), pp. 56-65.
- *Mikkola, M. (2009c). Catering for Sustainability: Building a Dialogue on Organic Milk. *Agronomy Research* 7 (2), pp. 668-676.
- *Mikkola, M. (2010a). Actors' orientations toward sustainable food system. Social dynamics for sustainability within production and public consumption. Manuscript for Doctoral thesis in Agro-ecology. Submitted 08.06.2010 for pre-examination to Faculty of Agriculture and Forestry, University of Helsinki. 100 p.
- *Mikkola, M. (2010b). Role of public catering and use of organic food in educational contexts: Creating centres for sustainable food systems. Finnish national report of innovative Public Organic food Procurement for Youth (iPOPY) 2007-2010 research project. *Bioforsk Report* Vol. 5 No. 104/2010 iPOPY discussion paper 3/2010. Accessible at 06.09.2010 at <<http://orgprints.org/17412/>>.
- *Mikkola, M., Mikkelsen, B.E. and G. Roos, Eds. (2009) *Like what you get? Is it good for you? Organic food, health and sustainable development in schools*. Proceedings of Like what you get? Is it good for you? Organic food, health and sustainable development in schools, University of Helsinki, Finland, Ruralia Institute, 21.- 22. January 2009. University of Helsinki, Ruralia Institute.
- *Mikkola, M. and Roos, G. (2010) Young people's perspective making and taking on organic food in Finland and Norway. To be submitted to *Appetite* during September 2010.
- *Post, A. & Mikkola, M. (2010). Nordic stakeholders in catering for sustainability: chasm between ideology and practice? Resubmitted in revised version to *British Food Journal*. (Accomplished partly by iPOPY funding).
- *Risku-Norja, H. & Mikkola, M. (2009). Systemic Sustainability Characteristics of Organic Farming: A review. *Agronomy Research* 7 (2), pp. 728-736. (Accomplished partly to support iPOPY work in WP4).
- Roos, G. and Mikkola, M. (2009). *The iPOPY project and how to communicate with the young generation*. 1st Nordic organic conference: towards increased sustainability in the food supply chain, Gothenburg, Sweden, 18-20 May 2009, proceedings p 55-57.
- *Roos, G. and Mikkola, M. (2010) *Education about organic food and sustainability in Denmark, Finland, Italy and Norway. Findings from the iPOPY project*. Project report no. 9 – 2010. SIFO, National Institute for Consumer Research, Oslo, Norway.

WP 5 | Nutrition and health

Responsible partner: Partner 3, AAU, Bent Egberg Mikkelsen

Description of work:

Positive attitudes towards organic food are associated with healthier menus in worksite canteens, but it remains to be proven that POP policy in fact contributes to a healthier eating pattern. WP5 will explore whether organic conversion of public food systems will lead to changed dietary patterns that in turn may result in healthier eating among young consumers in school settings.

Initial statements:

- The implementation phase of POP in schools is often associated with adoption of general food and nutrition policies.
- The implementation phase of POP in schools is often associated with comprehensive redesign of menus to overcome premium prices on organic products.
- School based food and nutrition policies support healthier eating patterns.
- Processes of change related to implementation of healthy eating and POP initiatives in schools are associated with learning processes among key stakeholders that might support healthier eating.

Research methods: Food practices before and after introduction of organic food will be studied by interviewing catering managers in DK, FI, IT, NO and DE in a web-based questionnaire. A pre/post test will be performed on Danish cases (= schools in Copenhagen, for the time being introducing organic food as a part of the school meal service) and controls (non-organic school

meals), studied during the introduction period of organic food in the case schools. Comparable schools with respect to location and size will be selected. Finally, focus group interviews will be performed with 5-6th graders in Norway and Denmark to reveal attitudes, values and beliefs related to health, nutrition and sustainability.

Final report on work carried out, results, deviations from the original plan/WP aims:

A- work carried out and results obtained:

The WP5 has explored the link between the two strong agendas in the “European school food revolution” (Morgan & Sonnino, 2008): Healthy eating and organic food supply. In particular, WP5 has explored how organic conversion influences the school food systems and if they lead to changed dietary patterns that in turn may result in healthier eating among young consumers. Due to methodological limitations and due to inability of schools to devote resources to the field work it was chosen to use indicators and proxies for healthier eating.

Previous studies have shown that good nutritional environments are a determinant for healthier eating. Therefore the study of four countries was carried out using self-reported nutritional environment indicators (FI, DE, IT and DK). Norway was not included in the comparative study due to the different structure of school food provision here. The nutritional environment at schools was mapped using a web-based questionnaire. School food coordinators were used as respondents. The comparative study was supplemented by a qualitative study in Denmark to uncover how student and practitioners perceive the link between healthy eating and organic supply. Previous studies have shown that consumers in most cases make a link between organic food and individual health. The current study confirms this and shows that organic schools seem to be better at creating good nutritional environments than non-organic schools (He et al, submitted).

Since good nutritional environments such as local school food policies have been shown to be associated with healthier eating, it is recommended that school practitioners and policymakers should work on developing such environments. They should consider to position organic food in school food and nutrition policies at local and regional level. When doing so it is also recommended to integrate organic supply with curricula activities and apply a “whole school approach”. But doing so the chances for creating sustainable learning and behavioral change are greatest both in terms of healthier eating and in terms of organic consumption patterns. Due to the obvious and close link between sustainability issues and healthy eating it is further recommended to integrate the well established education for sustainability with education for healthy eating. It is also recommended to try to integrate theoretically based teaching about healthy eating and organic consumption, including “hands on” experience and learning (Andersen et al, 2010).

WP5 developed a methodology to study the dietary patterns at individual level (Hansen et al, 2009). The methodology was tested among Danish 6 graders and can be used to study if the better nutritional environments in “organic” schools are reflected at the individual level.

B- comments on deviations from the original plan:

No comments

Referred literature:

Andersen, Stine; Burkal, Anna; Olsen, Malene Falster and Mikkelsen, Bent Egberg (2010) *Pupils' Conception of Organic Foods and Healthy Eating in School. Qualitative insights from focus group interviews with 5th and 7th grade pupils in a Copenhagen elementary school*. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00623-7. Organic eprints ID17169

Hansen, Mette; Laursen, Rikke Pilmann and Mikkelsen, Bent Egberg (2009) *Design and pilot testing of a dietary assessment methodology for children at school*. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00569-8. Organic eprints ID16800

He, C; Løes, AK & Mikkelsen BE (2010): Organic school food policies are supportive for healthier eating behaviors—results from an observational study in Danish schools. Submitted to British Food Journal, August 12, 2010. <http://orgprints.org/17422/>

Morgan, K. And Sonnino, R. (2008) *The school food revolution. Public food and the challenge of sustainable development*. Earthscan, London.

4. Publications and dissemination activities

4.1 List

Note: the report should contain all the publications and dissemination activities of the project. Publications should have been loaded in Organic Eprints, but some dissemination activities might not be in Organic Eprints and still have to be listed below. Part of the list required below can be extracted and pasted by doing a search in Organic Eprints, and others added manually. The resulting list should be clear and complete, whether the tables below are used or a search in Organic Eprints.

Comment: I have listed all entries affiliated to iPOPY in Organic E-prints. This implies that the list is not 100 % complete, but all important deliverables are covered.

Project website(s)

Address	Authors: (name + institution acronym)	When was it last updated	Language
www.agrsci.dk/ipopy	Liv Birkeland and Lena Lie Nymoer, Bioforsk	September 2010	English

Comments to the website

Completion of the website for making it "eternal" was seriously hampered by the hacking, which occupied the site from early June to medio August 2010. The funding bodies/coordinator should make a clear policy on whether placing future CORE Organic project websites on a common portal is voluntarily or mandatory. If voluntarily it should be clarified e.g. that the security of the site is the responsibility of the project and not of the coordinator. In our case I understood initially that the placement on a common CORE portal was mandatory; however when it came to the hacking, the policy of ICROFS towards a common portal for all CORE projects seemed to have changed. This was confusing and stressing. I liked that all projects were to be found on the same portal and think it should be so in the future as well.

Deliverables and publications from iPOPY, 2007-2010

By help of a list produced on September 15, 2010 by searching for all entries in Organic E-prints with affiliation to iPOPY (n=95), via the following link:

http://orgprints.org/cgi/search/advanced?screen=Public%3A%3AEPrintSearch&_fulltext__merge=ALL&_fulltext_=&addtitle%2Ftitle_merge=ALL&addtitle%2Ftitle=&creators_name_merge=ALL&creators_name=&editors_name_merge=ALL&editors_name=&abstract%2Fengabstract_merge=ALL&abstract%2Fengabstract=&date=&keywords_merge=ALL&keywords=&subjects_merge=ALL&projects=iPOPY&projects_merge=ALL&publication_merge=ALL&publication=&publicfulltext=EITHER&publisher_merge=ALL&publisher=&series_merge=ALL&series=&conference_merge=ALL&conference=&department%2Finstitution_merge=ALL&department%2Finstitution=&thesistype_merge=ALL&thesistype=&leaders_name_merge=ALL&leaders_name=&acronym_merge=ALL&acronym=&startdate=&stopdate=&budget=&intfunding=&natfunding=&otherfunding=&personmonths=&projectid_merge=ALL&projectid=&location_merge=ALL&location=&funders_merge=ALL&referencetext_merge=ALL&referencetext=&satisfyall=ALL&order=creators_name%2F-date%2Ftitle&_action_search=Search

Within each category of publications/deliverables, the most recent are shown at the top.

The numbers 1-95 refer to the number in the list produced by the orgprints search and has been kept here in case readers want to test the searching. It also reveals that a few entries are listed twice.

Two entries submitted as lecture and poster for the German "Wissenschaftstagung 2011" and some deliverables not yet uploaded are listed without numbers 1-95.

For all deliverable not (yet) uploaded to Organic Eprints this is shown.

Below, 10 categories of deliverables are shown, resembling the structure asked for in the template of this report.

Category 1: Proceedings

1. Mikkelsen, Bent Egberg; Husby, Sofie and Brandhøj, Mia (Eds.) (2010) Foodservice at events as a strategy for sustainable food consumption. Workshop held as a part of the conference: Joint Actions on Climate Change, Aalborg Congress & Culture Centre, Denmark, June 9th-10th, 2009. Proceedings of Joint Actions on Climate Change, Aalborg Congress & Culture Centre, Denmark, June 9th-10th, 2009. CORE Organic Project Series Report, ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark. ISBN 978-87-92499-06-6
2. Strassner, Carola; Løes, Anne-Kristin; Nölting, Benjamin and Kristensen, Niels Heine (Eds.) (2010) Organic Food for Youth in Public Settings: Potentials and Challenges. Preliminary Recommendations from a European Study. Proceedings of iPOPY session held at the BioFach Congress 2010, Nuremberg, Germany, February 20, 2010. ICROFS, International Centre for Research in Organic Food Systems, Tjele, Denmark. ISBN 978-87-92499-05-0
3. Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoen, Lena Lie (Eds.) (2010) Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark. ISBN 978-87-92499-04-2
4. Strassner, Carola and Mikkelsen, Camilla (Eds.) (2010) Certifying Out Of Home Operators in Europe. European Forum for Certification. Proceedings of European Forum for Certification at BioFach 2010, Nuremberg, Germany, 20th February 2010. University of applied sciences, Münster, Germany and IFOAM EU group.
5. Mikkola, Minna; Mikkelsen, Bent Egberg and Roos, Gun (Eds.) (2009) Like what you get? Is it good for you? Organic food, health and sustainable development in schools. Proceedings of Like what you get? Is it good for you? Organic food, health and sustainable development in schools, University of Helsinki, Finland, Ruralia Institute, 21.- 22. January 2009. University of Helsinki, Ruralia Institute. CORE Organic Project Series Report, ICROFS, Denmark. ISBN 978-87-991343-8-0
6. Strassner, Carola; Løes, Anne-Kristin; Kristensen, Niels Heine and Spigarolo, Roberto (Eds.) (2009) Proceedings of the Workshop on Organic Public Catering at the 16th IFOAM Organic World Congress, 19th June 2008 in Modena, Italy. CORE Organic Project Series Report, ICROFS, Denmark. ISBN 978-87-991343-7-3
7. Nölting, Benjamin (Ed.) (2009) Providing organic school food for youths in Europe - Policy strategies, certification and supply chain management in Denmark, Finland, Italy and Norway. Proceedings of BioFach 2009, GastroForum, Nuremberg, Germany, February 20th 2009. CORE Organic Project Series Report, ICROFS, Denmark. ISBN 978-87-92499-00-4
87. Strassner, Carola (2009) Certifying Out of Home Operators in Europe. European Forum for Certification. Summary of a Forum held at the BioFach Congress 2009. CORE Organic Project Series Report, ICROFS, Tjele, Denmark. ISBN 978-87-92499-03-5
8. He, Chen; Marley, Elin and Mikkelsen, Bent Egberg (Eds.) (2008) The iPOPY Young Researchers Workshop on Organic and Healthy Foods in Schools - Methods and Early Results. [Unpublished] <http://orgprints.org/15648/>

Category 2. Scientific reports

- 9a. Spigarolo, R, Sarti, M.V., Bocchi, S. and Giorgi, G. **a**. Main constraints in developing public organic procurement. CORE Organic Project Series Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark, ISBN 978-87-92499-11-0.
- 9b. Spigarolo, R, Sarti, M.V., Bocchi, S. and Giorgi, G. **b** *School catering supply chains: Study on five cases*. CORE Organic Project Series Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark. ISBN: 978-87-92499-12-7.

- 9c. Spigarolo, Roberto; Donegani, Giorgio; Giorgi, Giulio and Sarti, Valerio (2010) *Differences between real and perceived quality among users of school catering – survey on 40 Italian schools*. International Centre for Research in Organic Food Systems (ICROFS) , Tjele, Denmark. ISBN 978-87-92499-13-4
10. Andersen, Stine; Burkal, Anna; Olsen, Malene Falster and Mikkelsen, Bent Egberg (2010) Pupils' Conception of Organic Foods and Healthy Eating in School. Qualitative insights from focus group interviews with 5th and 7th grade pupils in a Copenhagen elementary school. Bioforsk Report Vol 5 No 37 2010, iPOPY discussion paper 2/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00623-7
11. Bårdsen, Mari Greta and Løes, Anne-Kristin (2010) Organic food in schools and kindergartens in Trondheim. A case study report. Bioforsk Report Vol 5 No 18 2010, iPOPY discussion paper 1/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00614-5
19. Hansen, Stine Rosenlund; Nielsen, Thorkild and Kristensen, Niels Heine (2010) Organic and conventional public food procurement for youth in Denmark – a national overview. Bioforsk Report Vol 5 No 113 2010, iPOPY discussion paper 6/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00681-7
17. He, Chen and Mikkelsen, Bent Egberg (2010) Does organic school food service provide more healthy eating environments than their non organic counterparts? Foodscape Series Report nr. 1, Aalborg University. ISBN 978-87-92650-22-1
37. Løes, Anne-Kristin (2010) Organic and conventional public food procurement for youth in Norway. Bioforsk Report Vol 5 No 110 2010, iPOPY discussion paper 7/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00679-4
59. Mikkola, Minna (2010) Role of public catering and use of organic food in educational contexts: Creating centres for sustainable food systems. Finnish national report of innovative Public Organic food Procurement for Youth (iPOPY) 2007-2010 research project. Bioforsk Report Vol 5 No 104 2010, iPOPY discussion paper 3/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00672-5
79. Roos, Gun and Mikkola, Minna (2010) Education about organic food and sustainability in Denmark, Finland, Italy and Norway: Findings from the iPOPY project. Project report no 9-2010. SIFO - National Institute for Consumer Research, Oslo, Norway.
83. Spigarolo, Roberto; Sarti, Valerio and Giorgi, Giulio (2010) Organic and conventional public food procurement for youth in Italy. Bioforsk Report Vol 5 No 109 2010, iPOPY discussion paper 4/2010. Bioforsk Organic Food and Farming. ISBN 978-82-17-00677-0
90. Strassner, Carola; Lukas, Melanie and Løes, Anne-Kristin (2010) Certification of public organic procurement in Denmark, Finland, Italy and Norway as compared to Germany. Bioforsk Report Vol 5 No 103 2010, iPOPY discussion paper 5/2010. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00671-8
18. Hansen, Mette; Laursen, Rikke Pilmann and Mikkelsen, Bent Egberg (2009) Design and pilot testing of a dietary assessment methodology for children at school. Bioforsk Report Vol 4 No 150 2009, iPOPY discussion paper 4/2009. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00569-8
28. He, Chen and Mikkelsen, Bent Egberg (2009) Organic school meals in three Danish municipalities. Bioforsk Report Vol 4 No 66 2009, iPOPY discussion paper 2/2009. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00504-9
67. Nielsen, Thorkild; Nölting, Benjamin; Kristensen, Niels Heine and Løes, Anne-Kristin (2009) A comparative study of the implementation of organic food in school meal systems in four European countries. Bioforsk Report Vol 4 No 145 2009, iPOPY discussion paper 3/2009. Bioforsk, Tingvoll, Norway. ISBN 978-82-17-00568-1
70. Nölting, Benjamin; Løes, Anne-Kristin and Strassner, Carola (2009) Constellations of public organic food procurement for youth. An interdisciplinary analytical tool. Bioforsk Report, Vol. 4 No. 7, iPOPY discussion paper. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00464-6

In Orgprints, but lacking the affiliation to iPOPY: Nölting B, Reimann S, Strassner C (2009b) Bio-Schulverpflegung in Deutschland – Ein erster Überblick. Berlin, Centre for Technology and Society TU Berlin (ZTG discussion paper 30/09)

13. Bocchi, Stefano; Spigarolo, Roberto; Marcomini, Natale and Sarti, Valerio (2008) Organic and conventional public food procurement for youth in Italy. Bioforsk Report Vol 3 No 42 2008, iPOPY discussion paper 3/2008. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00345-8
20. Hansen, Stine Rosenlund; Schmidt, Hannah W.; Nielsen, Thorkild and Kristensen, Niels Heine (2008) Organic and conventional public food procurement for youth in Denmark. Bioforsk Report Vol 3 No 40 2008, iPOPY discussion paper 1/2008. Bioforsk Organic Food and Farming, Tingvoll, Norway.
43. Løes, Anne-Kristin; Koesling, Matthias; Roos, Gun; Birkeland, Liv and Solemdal, Liv (2008) Organic and conventional public food procurement for youth in Norway. Bioforsk Report Vol 3 No 43 2008, iPOPY discussion paper 4/2008. Bioforsk Organic Food and Farming, Tingvoll, Norway. ISBN 978-82-17-00346-5
63. Mikkola, Minna (2008) Organic and conventional public food procurement for youth in Finland. Bioforsk Report Vol 3 No 40 2008, iPOPY discussion paper 1/2008. Bioforsk Organic Food and Farming, Tingvoll, Norway.

Category 3. Papers in trade/ technical journals and web portals

65. Nielsen, Thorkild; Hansen, Stine Rosenlund; Hansen, Mette Weinreich and Kristensen, Niels Heine (2010) Økologisk skolemad – betingelser for de økologiske leverandører. [Organic school food - conditions for the organic suppliers; in Danish] Submitted to ICROFS news, ICROFS, Tjele, Denmark.

Not yet in Orgprints! Hansen, Kristensen, Niels Heine, Hansen, Mette Weinreich and Nielsen, Thorkild (2010) Public organic food procurement for youth in four European countries. ICROFS news 2/2010, pp 3-4. ICROFS, Tjele, Denmark.

68. Nölting, Benjamin (2010) Lernfutter?! Mittagsverpflegung in der Grundschule. (Food to learn from!? School meals in the basic education, in German) Grundschule (5-2010) pp 46-48.
40. Løes, Anne-Kristin and Bårdsen, Mari Greta (2009) Mer økologisk skolemelk i Trondheim! [More organic school milk in Trondheim! (in Norwegian).] Økologisk landbruk (4) (journal for organic farmers and advisors in Norway).
49. Marley, Elin Kaja and Roos, Gun (2009) Økomat i norske skoler - krever engasjement, men skaper trivsel. [Organic food in Norwegian schools - requires involvement, but creates wellbeing. In Norwegian] Utdanning, 11, p 44 (journal for actors in the Norwegian school sector).
69. Nölting, Benjamin (2009) Bio-Schulverpflegung: Berlin und Italien sind Spitzenreiter. (Organic school meals: Berlin and Italy are in the leading position; in German). Technical University of Berlin/ Referat für Presse und Information, TUB-newsportal, Berlin, Germany. Online at <http://www.pressestelle.tu-berlin.de/newsportal/einblick_fuer_journalisten/2009/bio-schulverpflegung_berlin_und_italien_sind_spitzenreiter/>, 12 October 2009.
- 72+73. Nölting, Benjamin; Reimann, Silke and Strassner, Carola (2010) Außer-Haus-Verpflegung: Mit Bio Schule machen. [Out of home food procurement: Make school with organics; in German.] Ökologie & Landbau 2/2010 (154), pp 41-43.

Category 4. Peer-reviewed papers

12. Bocchi, Stefano and Spigarolo, Roberto (2010) The school meal system: analysis of calls for tender as a tool for improving quality. Food policy. [Submitted , 15 August 2010]
16. Chen, He; Løes, Anne-Kristin and Mikkelsen, Bent Egberg (2010) Organic school food policies are supportive for healthier eating behaviours – results from an observational study in Danish schools. British Food Journal. [Submitted , 11 August 2010]
45. Løes, Anne-Kristin and Nölting, Benjamin (2010) Increasing organic consumption by school meals – lessons learned in the iPOPY project. Organic Agriculture. DOI 10.1007/s13165-011-0009-0

Not in Orgprints! Post, A. & Mikkola, M. (2010). *Nordic stakeholders in catering for sustainability: chasm between ideology and practice?* Resubmitted in revised version to British Food Journal.

Not in Orgprints! Kristensen, N.H, Netterstrøm, S., He, C., Mikkelsen, B.E. and Nielsen, T. (2009) *Making the organic food service chain work and survive*. *Agronomy Research* 7 (Special issue II), p. 618–624.

46. Løes, Anne-Kristin and Nölting, Benjamin (2009) Organic school meal systems – towards a more sustainable nutrition. *Agronomy Research*, 7 (Special issue II), pp 647-653.

62. Mikkola, Minna (2009) Shaping professional identity for sustainability. Evidence in Finnish public catering. *Appetite*, 53, pp 56-65.

Not in Orgprints! Mikkola, M. (2009b). *Catering for Sustainability: Building a Dialogue on Organic Milk*. *Agronomy Research* 7 (Special issue) (2), pp. 668-676.

Added on May 12:

Lukas, M., Strassner, C and Løes, A.-K. Certification of organic mass catering - a need for harmonization across Europe? *Organic Agriculture*, accepted March 2011.

Mikkola, M. and Roos, G. Young people's perspective on organic food in Finland and Norway: a transformative approach. Accepted by *Appetite*, March 2011.

Not in Orgprints! Risku-Norja, H. & Mikkola, M. (2009). *Systemic Sustainability Characteristics of Organic Farming: A review*. *Agronomy Research* 7 (Special issue) (2), pp. 728-736.

Category 5. Conference contributions (with oral presentations), published

Strassner, C. , Lukas, M. Zertifizierung von Außer-Haus-Verpflegung - Offizielle Statements und Untersuchungsdaten einiger europäischer Zertifizierungsstellen. *WiTa 2011* Submitted.

33. Kristensen, Niels Heine; Hansen, Mette Weinreich and Nielsen, Thorkild (2010) innovative Public Organic food Procurement for Youth (iPOPY). Lessons learned from implementing organic into European school meals – policy implications. *In:* Strassner, Carola; Løes, Anne-Kristin; Nölting, Benjamin and Kristensen, Niels Heine (Eds.) *Organic Food for Youth in Public Settings: Potentials and Challenges*. Preliminary Recommendations from a European Study. Proceedings of the iPOPY session held at BioFach Congress 2010. CORE Organic Project Series Report, ICROFS, Tjele, Denmark. Pp 11-16.

35. Lukas, Melanie (2010) Opinions in Europe on Certification on Mass Catering. *In:* Strassner, Carola and Mikkelsen, Camilla (Eds.) (2010) *Certifying Out Of Home Operators in Europe*. European Forum for Certification. Proceedings of European Forum for Certification at BioFach 2010, Nuremberg, Germany, 20th February 2010. University of applied sciences, Münster, Germany and IFOAM EU group. Pp 15-18.

55. Mikkelsen, Bent Egberg and He, Chen (2010) Organic and healthy – two goals in one go. A comparative analysis study among public primary schools in Denmark and Germany. *In:* Strassner, Carola; Løes, Anne-Kristin; Nölting, Benjamin and Kristensen, Niels Heine (Eds.) *Organic Food for Youth in Public Settings: Potentials and Challenges*. Preliminary Recommendations from a European Study. Proceedings of the iPOPY session held at BioFach Congress 2010. CORE Organic Project Series Report., ICROFS, CORE Organic Project Series Report, Tjele, Denmark. Pp 37-44.

64. Mikkola, Minna and Roos, Gun (2010) Tracing Food Education for Sustainable Development in iPOPY countries. Recommendations for learning about sustainability and organic food within educational contexts. *In:* Strassner, Carola; Løes, Anne-Kristin; Nölting, Benjamin and Kristensen, Niels Heine (Eds.) *Organic Food for Youth in Public Settings: Potentials and Challenges*. Preliminary Recommendations from a European Study. Proceedings of the iPOPY session held at BioFach Congress 2010. CORE Organic Project Series Report, ICROFS, Tjele, Denmark. Pp 29-36.

84. Spigarolo, Roberto; Sarti, Valerio and Nölting, Benjamin (2010) Providing organic food for millions of Italian pupils. How do we make it? *In:* Strassner, Carola; Løes, Anne-Kristin; Nölting, Benjamin and Kristensen, Niels Heine (Eds.) *Organic Food for Youth in Public Settings: Potentials and Challenges*. Preliminary Recommendations from a European Study. Proceedings of the iPOPY session held at BioFach Congress 2010. CORE Organic Project Series Report, ICROFS, Tjele, Denmark. Pp 17-28.

14. Bocchi, Stefano; Spigarolo, Roberto; Sarti, Valerio and Noelting, Benjamin (2009) Organising supply chains of organic products for Italian school meals - The case of the province and of the city of Piacenza. *BioFach 2009, GastroForum*. *In:* Noelting, Benjamin (Ed.) *Providing organic school food for youths in Europe - Policy strategies, certification and supply chain management in Denmark, Finland, Italy and Norway*. Proceedings of the iPOPY seminar held at the BioFach February 20th 2009 in Nuremberg, Germany. CORE Organic Project Series

Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark. pp. 23-29.

23. He, Chen (2009) An illustration of web survey methodology. *In:* Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoer, Lena Lie (Eds.) (2010) *Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes*. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark. Pp 12-16.

44. Løes, Anne-Kristin and Noelting, Benjamin (2009) State of the art of the project "innovative Public Organic food Procurement for Youth" (iPOPY). *In:* Noelting, Benjamin (Ed.) *Providing organic school food for youths in Europe - Policy strategies, certification and supply chain management in Denmark, Finland, Italy and Norway*. Proceedings of the iPOPY seminar held at the BioFach February 20th 2009 in Nuremberg, Germany. CORE Organic Project Series Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark, pp. 9-13.

38. Løes, Anne-Kristin (2009) The iPOPY project – a research commitment to more sustainable public food. *In:* Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoer, Lena Lie (Eds.) (2010) *Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes*. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark. Pp 20-26.

53+57. Mikkelsen, Bent Egberg and Olsen, Tenna Doktor (2009) Organic foods in Danish municipal school food systems – a multi stakeholder analysis of available evidence on constraints and perspectives. *In:* Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoer, Lena Lie (Eds.) (2010) *Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes*. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark. Pp 27-32.

60. Mikkola, Minna (2009) How to integrate sustainable consumption and healthy eating in curriculum - An in-depth probing of the concept of whole school approach. *In:* Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoer, Lena Lie (Eds.) (2010) *Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes*. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark. Pp 33-36.

66. Nielsen, Thorkild; Kristensen, Niels Heine and Mikkelsen, Bent E. (2009) Ecological modernisation in the public catering sector. Danish experiences with use of organic food. *In:* Noelting, Benjamin (Ed.) *Providing organic school food for youths in Europe - Policy strategies, certification and supply chain management in Denmark, Finland, Italy and Norway*. Proceedings of the iPOPY seminar held at the BioFach February 20th 2009 in Nuremberg, Germany. CORE Organic Project Series Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark, pp. 14-17.

Not in Orgprints! Nielsen, T.; Hansen, M.W., Kristensen, N. H.: National strategies for organic supply in healthy school food systems – Results from policy analysis in four iPOPY countries. In: Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoer, Lena Lie (Eds.) (2010) *Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes*. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series report, ICROFS, Tjele, Denmark.

74. Nölting, Benjamin; Strassner, Carola; Løes, Anne-Kristin and Nielsen, Thorkild (2009) Bio-Schulverpflegung in Italien, Finnland, Dänemark und Norwegen – Was kann Deutschland lernen? (Organic school food in IT, FI, DK and NO- what can Germany learn?; in German) *In:* Mayer, J.; Alföldi, T.; Leiber, F.; Dubois, D.; Fried, P.; Heckendorn, F.; Hillmann, E.; Klocke, P.; Lüscher, A.; Riedel, S.; Stolze, M.; Strasser, F.; van der Heijden, M. und Willer, H. (Eds) (2009): *Werte - Wege - Wirkungen: Biolandbau im Spannungsfeld zwischen*

Ernährungssicherung, Markt und Klimawandel. Beiträge zur 10. Wissenschaftstagung Ökologischer Landbau, ETH Zürich, 11.-13. Februar 2009 Band 2: Tierhaltung, Agrarpolitik und Betriebswirtschaft, Märkte und Lebensmittel. Verlag Dr. Köster, Berlin. Pp 356-359

78. Roos, Gun (2009) One size fits all? – Differences in school food cultures identified in iPOPY research. *In:* Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoen, Lena Lie (Eds.) (2010) Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark. Pp 54-56.

Not in Orgprints! Roos, G. and Mikkola, M. (2009) *The iPOPY project and how to communicate with the young generation.* In: Fredriksson, Pelle and Ullvén, Karin (Eds.) Proceedings from 1st Nordic Organic Conference, Towards increased sustainability in the food supply chain, Gothenburg, Sweden, 18-20 May 2009. Centrum för hålligt lantbruk (CUL), SLU (Swedish University of Agricultural Sciences), Ultuna, Sweden, pp 55-57.

82. Spigarolo, Roberto; Bechini, Luca and Bocchi, Stefano (2009) The footprint of organic farms. Some ecological indicators to evaluate it. *In:* Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoen, Lena Lie (Eds.) (2010) Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark. Pp 57-65.

94. Strassner, Carola and Roehl, Rainer (2009) Organic Certification in the iPOPY Countries and Germany – Current Status and Future Challenges. *In:* Noeltling, Benjamin (Ed.) Providing organic school food for youths in Europe - Policy strategies, certification and supply chain management in Denmark, Finland, Italy and Norway. Proceedings of the iPOPY seminar held at the BioFach February 20th 2009 in Nuremberg, Germany. CORE Organic Project Series Report, International Centre for Research in Organic Food Systems (ICROFS), Tjele, Denmark, pp. 18-22.

92. Strassner, Carola; Nölting, Benjamin and Reimann, Silke (2009) School food provision in Germany. A first analysis of the role of organic produce. *In:* Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoen, Lena Lie (Eds.) (2010) Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes. Proceedings of a seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. Proceedings of iPOPY-Foodprint conference 2009, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, International Centre for Research in Organic Farming Systems, Tjele, Denmark. Pp 66-68.

91. Strassner, Carola and Løes, Anne-Kristin (2009) Is there any certification of public organic procurement in iPOPY countries? In: Strassner, Carola; Løes, Anne-Kristin; Kristensen, Niels Heine and Spigarolo, Roberto (Eds.) (2009) Proceedings of Workshop on Organic Public Catering at the 16th IFOAM Organic World Congress, Modena, Italy, June 19, 2008. CORE Organic Project Series Report, ICROFS, Denmark. Pp 57-66

Category 6. Scientific conference contributions (with oral presentations), not published

27. He, Chen and Mikkelsen, Bent Egberg (2010) Promoting sustainable consumption and healthy eating: A comparative study among public schools in Denmark, Germany, Finland & Italy. Linking Health, Equity & Sustainability in Schools CIGG, Geneva, Switzerland, July 10-11, 2010.

15. He, Chen and Bent Egberg, Mikkelsen (2010) Organic food in Danish schools - a contribution to healthier eating at school? Final iPOPY conference, Research Council of Norway, Oslo, Norway, September 2, 2010.

54. Mikkelsen, Bent Egberg and He, Chen (2010) Nutritional implications of organic conversion in large scale food service: Preliminary results from Core Organic research. Foods for Health Workshop, arranged by Foods for Health Institute (FFHI), UC Davis and Centre for Advanced Food Studies (LMC), Denmark, Copenhagen, Denmark, Denmark June 21 – 22, 2010.

77. Roos, Gun (2010) Organic food in the canteen - Perceptions among cadets in the Norwegian Defense. 18th International Ethnological Food Research Conference, Turku, Finland, August 18-21, 2010.

85. Strassner, Carola (2010) The certification of organic canteens all around Europe. Sustainable School Catering: Comparing Italian and other European experiences, final iPOPYP conference in Italy, Bologna, Italy, 27-28th May 2010.
86. Strassner, Carola (2010) Bio in Kindergarten und Schule - So funktioniert's. [Organic in kindergarten and schools- this is the way it functions; in German] Zur Nachahmung empfohlen: Bio in Kindergarten und Schule, München, Deutschland, 05.05.2010.
56. Mikkelsen, Bent Egberg and He, Chen (2009) Health policy intervention in schools promote physical activities among the pupils. International Society of Behavioral Nutrition and Physical Activity, Lisbon, Portugal, June 17 - 20, 2009.
80. Roos, Gun; Vramo, Lill and Vittersø, Gunnar (2009) Organic food and youth at a Norwegian music festival. "Informing possibilities for the future of food and agriculture", Joint annual meeting of AFHVS & ASFSS, State College, Pennsylvania, May 28-31 2009.
88. Strassner, Carola (2009) Ernährungsbildung und Schulverpflegung. [Food and Nutrition Education and School Meals; in German.] Auftaktveranstaltung der Vernetzungsstelle Schulverpflegung (Osnabrück), Wallenhorst, Osnabrück, Deutschland, 23.09.2009.
31. Koesling, Matthias and Løes, Anne-Kristin (2008) Norwegian lunch packages - fruit and milk schemes. Open iPOPYP workshop on Organic School Food Provision, BioFach, Nürnberg, Germany, February 23, 2008.
51. Mikkelsen, Bent Egberg (2008) Learning and lifeskills through organic and healthy foods at school - The Scandinavian experience. BioFach, Latina Sao Paulo, 25. October 2008.
52. Mikkelsen, Bent Egberg (2008) Public food systems strategies to protect environment, soil and groundwater - the case of organic food in Copenhagen. "Agua y Alimento Sostenible" seminar, Expo Zaragoza, 4th, July 2008.
58. Mikkelsen, Bent Egberg (2007) Evidence on the effect of healthy and sustainable school meals system. International Alimenterra Conference: The role of public food service in promoting sustainable rural development, health environmental and food education. Sevilla, November 7-9, 2007.
89. Strassner, Carola (2008) New models for school meals. School food provision systems in Germany. Open iPOPYP workshop on Organic School Food Provision, BioFach, Nürnberg, Germany, February 23, 2008.

Category 7. Other oral presentations

34. Lukas, Melanie (2010) iPOPYP- Ein Überblick zum europäischen Forschungsprojekt. [iPOPYP- reviewing the European research project.] Press conference arranged by a German network "Bio für Kinder", Munich, Germany, 4th May 2010. More at <http://www.tollwood.de/umweltaktivitaeten/bio-fuer-kinder/> (Not published)
50. Mikkelsen, Bent Egberg (2010) Food, Football & Foodprints. Brazilian family farming seminar: Brazilian Social Footprint, Nürnberg, Holiday Inn, February 16, 2010.
39. Løes, Anne-Kristin (2009) CORE Organic pilot project iPOPYP - presentation at mid-term: innovative Public Organic food Procurement for Youth. Joint meeting of the CORE Organic pilot projects coordinators and CORE Organic Funding Body Network, Rome, Italy, 8 June 2009. (Not published)

Category 7. Posters presented at scientific conferences

- Lukas, M., Strassner, C. Bio-Zertifizierung von Verpflegungseinrichtungen in den iPOPYP- Ländern - ein Überblick mit Hilfe von Experten-Interviews. WiTa 2011 Submitted.
22. He, Chen (2009) Organic and healthy food strategies in schools -Separate strategies or two sides of the same coin? FOOD Denmark Congress 2009: A Career within Innovation? DTU (Technical University of Denmark), Lyngby.
36. Lukas, Melanie and Strassner, Carola (2009) School food supply in North Rhine-Westphalia - Analysis of the current situation. In: Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and

Nymoens, Lena (Eds.) Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes. Proceedings of the seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, Tjele, Denmark. Pp 85-86.

41+42. Løes, Anne-Kristin and Koesling, Matthias (2009) Økologisk mat til ungdommen – en presentasjon av iPOPY prosjektet. [Organic food for the youth - a presentation of the iPOPY project.] In: Fløistad, Erling and Munthe, Kari (Eds.) Bioforsk-konferansen 2009, Mat, vann og klima. Bioforsk fokus 4(2), Bioforsk, 4 (2), pp. 251-252.

61. Mikkola, Minna (2009) Poster: Organic milk as a sustainability strategy for Finnish milk system. Poster presented at the seminar: Like what you get? Is it good for you? Organic food, health and sustainable development in schools. 21.–22.1.2009, Helsinki, Finland. Open seminar of the project innovative Public Organic food Procurement for Youth 'iPOPY'. (Not published in the proceedings from that seminar).

76. Rolf, Angelika and Strassner, Carola (2009) School food supply in Lower Saxony - Analysis of the current situation. In: Mikkelsen, Bent Egberg; He, Chen; Mikkola, Minna; Nielsen, Thorkild and Nymoens, Lena (Eds.) Novel Strategies for Climate Mitigation, Sustainability and Healthy Eating in Public Foodscapes. Proceedings of the seminar held at Aalborg University, Copenhagen Institute of Technology, Denmark, November 25th-26th, 2009. CORE Organic Project Series Report, ICROFS, Tjele, Denmark. Pp 98-99.

93. Strassner, Carola and Roehl, Rainer (2009) Organic Certification of Hotels, Restaurants and Catering in Germany. In: Fredriksson, Pelle and Ullvén, Karin (Eds.) Proceedings from 1st Nordic Organic Conference, Towards increased sustainability in the food supply chain, Gothenburg, Sweden, 18-20 May 2009. Centrum för uthålligt lantbruk (CUL), SLU (Swedish University of Agricultural Sciences), Ultuna, Sweden, p 176.

26. He, Chen (2008) Organic school meals in three Danish municipalities. IFOAM, Modena, Modena, Italy, 19 June 2008. (Not published)

29. He, Chen and Mikkelsen, Bent Egberg (2008) Does organic food intervention in school lead to changed dietary patterns? IFOAM, Modena, Italy, Modena, 2008-06-19. (Not published)

47. Løes, Anne-Kristin; Nölting, Benjamin; Kristensen, Niels Heine; Spigarolo, Roberto; Strassner, Carola; Roos, Gun; Mikkola, Minna and Mikkelsen, Bent Egberg (2008) iPOPY – innovative Public Organic food Procurement for Youth. School meals – and more! In: Neuhoff, Daniel; Halberg, Niels; Alfdi, Thomas; Lockeretz, William; Thommen, Andreas; Rasmussen, Ilse A.; Hermansen, John; Vaarst, Mette; Lck, Lorna; Corporali, Fabio; Jensen, Henning Hgh; Migliorini, Paola and Willer, Helga, Eds. (2008) .Cultivating the Future Based on Science. Proceedings of the Second Scientific Conference of the International Society of Organic Agriculture Research (ISO FAR), held at the 16th IFOAM Organic World Congress in Cooperation with the International Federation of Organic Agriculture Movements (IFOAM) and the Consorzio ModenaBio, 18 . 20 June 2008 in Modena, Italy. International Society of Organic Agriculture Research (ISO FAR), c/o IOL, DE-Bonn, Research Institute of Organic Agriculture FiBL, CH-Frick. Pp 298-301.

Category 8. Student's theses and doctoral thesis

30. Heidebur, Nicole (2010) Schulverpflegung in Hessen unter Berücksichtigung der Integration biologischer Lebensmittel. (School meals in Hesse (Germany) and the integration of organic food; in German) Diplomarbeit vorgelegt dem Prüfungsausschuss des Studienganges Oecotrophologie für die Fachrichtung Ernährung und Hauswirtschaft an der Fachhochschule Münster. Diploma thesis, University of applied sciences (Fachhochschule) Münster, Deutschland. [Unpublished]

75. Rolf, Angelika (2009) Schulverpflegung in Niedersachsen - Politik, Organisation, Nachhaltigkeit. (School meals in lower Saxony – politics, organization and sustainability; in German). Diploma thesis, University of applied sciences (Fachhochschule) Münster, Deutschland, Fachbereich Oecotrophologie. [Unpublished]

21. Hansen, Stine Rosenlund and Schmidt, Hannah Wirefeldt (2008) Muligheder og barrierer for brug af økologiske ingredienser i skolemadsordninger. [Barriers and possibilities for using organic ingredients in school meal systems, in Danish] Bachelor thesis, Technical University of Denmark, Roskilde Universitetscenter. [Unpublished]

25. He, Chen (2008) Does organic food intervention in school lead to change dietary patterns? Master thesis, National Food Institute, Technical University of Denmark. [Unpublished]

48. Marley, Elin Kaia (2008) Food for Thought - Introducing Organic Food in Norwegian Schools. Master thesis , published at Senter for Utvikling og Miljø/Centre for Development and the Environment, University of Oslo.

95. Sørnum, Helene (2008) Økologisk mat i Forsvaret - soldatenes holdninger til økologisk mat og landbruk. [Organic Food in the Norwegian Defence - the Soldiers` Attitudes to Organic Food and Agriculture.] Bachelor thesis , Akershus University College. [Unpublished]

Added on May 12: Mikkola, M. Social dynamics for sustainable food systems. Actors' orientations towards sustainability in primary production and public consumption. Doctoral thesis, University of Helsinki.

Category 9. Papers describing iPOPY results produced by authors not part of the iPOPY team

9. Alonso, Nuria (2010) Common rules for 'out of home' catering. The Organic Standard (110).

32. Kraus, Milena (2010) Wirtschaftsfaktor Bio. Berlin goes green. In: Berlin Boxx BusinessMagazin 10 (Jan./Feb. 2010), February 2010.

81. Spencer, Tom (2010) Insight into organic education. In: International Innovation, 28 May 2010. Research Media, Bristol, UK.

Category 10. Other deliverables, newsletters etc

71. Nølting, Benjamin and Nymoen, Lena (2010) Increasing organic food consumption through public procurement Findings and recommendations - With a special focus on school meals. A 8 p leaflet with recommendations for relevant user groups. Parallel edition in Italian: Forme innovative di Approvvigionamento Pubblico dei prodotti Biologici per i giovani. innovative Public Organic food Procurement for Youth iPOPY.] Bioforsk Organic Food and Farming, Tingvoll, Norway.

- Totally 12 issues of the iPOPY newsletter, available from the website www.agrsci.dk/ipopy

- An initial leaflet describing the project in English, made by ICROFS for the kick-off meeting of all CORE Organic I projects in Vienna 2008. Available at the CORE portal.

4.2 Further possible actions for dissemination

- List publications/deliverables arising from your project that Funding Bodies should consider disseminating (e.g. to reach a broader audience)

I think we have disseminated quite a lot, but invitations to present iPOPY results on conferences would of course be welcome. Further, the paper in International innovation (Spencer 2010, <http://orgprints.org/17144/> and the recommendations leaflet <http://orgprints.org/17382/> are useful products where the whole team have been actively involved to produce a common final product.

- Indicate publications/deliverables that could usefully be translated (if this has not been done, and indicate target language)

Not relevant for iPOPY; we have ensured publication in various languages where required.

4.3 Specific questions regarding dissemination and publications

- Is the project website up-to-date?

Yes

- List the categories of end-users/main users of the research results and how they have been addressed/will be addressed by dissemination activities

Our main users of iPOPYP results are:

- *Policy makers on local, regional, national and European levels*
- *Caterers*
- *School staff*
- *Users (pupils and parents) (indirectly)*

To approach these user groups, who usually do not frequent scientific conferences, we have arranged open workshops and conferences as separate events or linked to other public events such as the large annual Biofach fair in Germany. We have also had regular meetings with national user groups in all countries, and an intensive contact with important users due to the case studies that were conducted in all WPs.

We have made sure that all important deliverables are freely available at Organic E-prints and emphasised this option on the project website and in all other communication (e.g. newsletter).

- Impact of the project in relation to main beneficiaries of the project results

There has been an increasing interest for the project conferences, and positive feed-backs from participants to these events. In spite of many and diverse challenges, several trends point in the same direction (increasing interest for healthy food, sustainable nutrition, sustainable development, public bodies acknowledging their responsibilities as conscious consumers). This supports the interest to introduce or increase the share of organic food in public food serving for youth.

Addendum

A. Added value of the transnational cooperation in relation to the subject

The iPOPY project was totally dependent on its transnationality. Analysing and comparing school meal systems and other types of public food procurement for youth in countries with highly different food culture and school food service systems has been the essential content of the iPOPY research.

The international approach was an important reason for attracting the interest of several talented students who have contributed significantly to the output of the project.

B. Recommendations to the CORE Organic Funding Body Network in relation to launching and monitoring of future transnationally funded research projects

It is understandable that the topics of the first call of CORE Organic II are now far from those prioritized in CORE Organic I. However, for future calls the output of iPOPY, both practically with respect to methodology used and developed, and scientifically with the results published, should provide a useful starting point for studies of public procurement of organic food in additional countries.

The organisational structure of the 8 first pilot projects (WPs, time schedules, management boards, consortium agreements etc.), as well as the planning and communication tools developed in these projects, should be very valuable material for later project coordinators to study. Such material should be made available for a larger public.

The CORE Organic Project Series Report is a good channel of dissemination, but significant drawback of that series is that it has no approval step. A step of approval, not only by the WP leader or project leader but also the responsible director of the publishing institute, is very useful to assure a sufficiently high quality of the publications. An approval step should have been added to the CORE Organic Report series, because this is a good help for the coordinators in case authors deliver a manuscript the coordinator thinks is not really completed.

Skype conferences and web-based common team rooms are very valuable communication tools in transnational projects.