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Organic and conventional public food procurement for youth in Norway

Anne-Kristin Løes, Matthias Koesling, Gun Roos, Liv Birkeland,
Liv Solemdal



Center for Technology and Society

Münster University of Applied Sciences



SIFO

Statens institutt
for forbruksforskning
National Institute
for Consumer Research

DTU

Technical University of Denmark



UNIVERSITY OF HELSINKI

Ruralia Institute





Main office
Frederik A. Dahls vei 20,
N-1432 Ås
Tel.: (+47) 40 60 41 00
Fax: (+47) 63 00 92 10
post@bioforsk.no

Bioforsk Organic
Tingvoll gard
6630 Tingvoll
Tlf: + 047 03 246
Faks: + 47 71 53 44 05
okologisk@bioforsk.no

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Author(s):

Author(s): Anne-Kristin Løes, Matthias Koesling, Gun Roos, Liv Birkeland, Liv Solemdal

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<i>Employer:</i> Bioforsk Organic	<i>Contact person:</i> Anne-Kristin Løes
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Summary:

In Norway, public procurement of food to youth is not well developed in comparison to many other European and Scandinavian countries. School meals are only offered in very few primary schools, and the common school meal is a packed lunch (sandwiches) brought from home, consumed in the class room. Subscription schemes for milk were introduced around 1970, and for fruit around 1995. Organic milk and fruit is offered only in some regions. Since 2007, fruit is served without payment in all schools with a lower secondary level (class 8-10 or 1-10). This effort was introduced as a first step to develop a free school meal in all public schools, which is a goal of one of the political parties in the current government. As in many other European countries, free school meals were offered (especially to poor children) in schools in the larger Norwegian cities around 1900. However, these meals were criticised for being unhealthy, and replaced by whole grain bread, milk and vegetables around 1930. Increasing private wealth, and increased demand for investments in school buildings, books etc changed the public priority and free school meals disappeared in Oslo around 1960. Today, there is not a general agreement about the optimal school meal composition, and whether or not the meals should be funded by the public. However, the increasing length of the school day and unsatisfactory scores of Norwegian pupils in international comparison tests (e.g. PISA) makes the school meal sector highly relevant in the public debate.

Three cases that will be studied in a research project about public organic food procurement for youth are briefly described: The municipality of Trondheim, Øya music festival in Oslo and the Air Force Academy. (Increased) serving of organic food is an important aim in all these cases, and young people are an important target group. The report is produced within the project "innovative Public Organic food Procurement for Youth", iPOP, and will be updated and revised during the project period (2007-2010).

Sammendrag:

Approved

Project leader

Turid Strøm, director

Anne-Kristin Løes

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1 National conditions, political organisation and policies

1.1 Geographic and political structure

Norway is a sparsely populated country; 4.681 mill people share 323 802 000 km². This means 15 people per km², as compared to 17 in Finland, 126 in Denmark, 189 in Italy and 231 in Germany (SSB 2007). Norway is divided into 20 geographic units called “fylker” (county, province) and the counties are divided into five regions called “landsdeler”. The capital, Oslo, is a separate county.

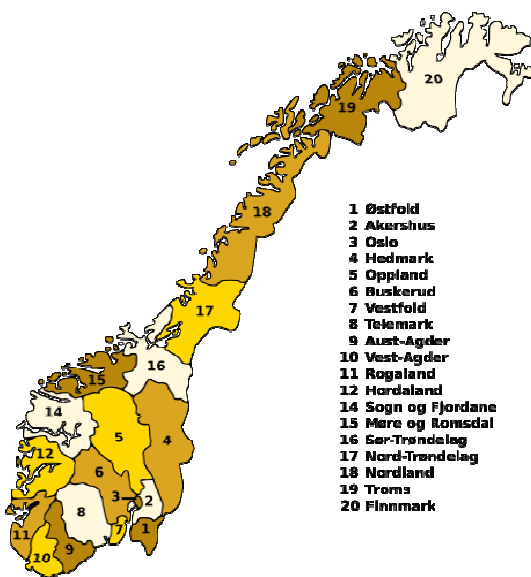


Figure 1. Map of Norway with 19 counties. Source: http://no.wikipedia.org/wiki/Norges_landsdeler

According to Wikipedia (2007), these are Sørlandet (counties Aust- og Vest-Agder), Vestlandet (Rogaland, Hordaland, Sogn og Fjordane, Møre og Romsdal), Østlandet (Oslo, Akershus, Østfold, Vestfold, Buskerud, Telemark, Hedmark, Oppland), Midt-Norge (Sør- og Nord-Trøndelag) and Nord-Norge (Nordland, Troms, Finnmark). However, these regions have no political function, and various regions exist for various purposes such as communication and health service. For example, Møre og Romsdal county (see Fig. 1, county 15) is sometimes regarded as belonging to Vestlandet, and sometimes to Midt-Norge. The last years, a debate has been carried out that the 19 counties, which currently all have their own administration and political councils, should be replaced, or supplied by a regional level. However, as long as several regions exist in parallel for the time being, it is very hard to agree on which regions would be the best. It is also much disagreement about the allocation of tasks and responsibilities between the county and (planned) region level. Meanwhile, Norway sticks to its old system of municipalities (in total, 431 in 2007), counties (19) and the national level (1). For municipalities and counties, parallel elections for political councils (municipality councils + county councils) are held each 4th year, the last time in September 2007. National elections are also each 4th year, in between the local elections, the last time in September 2005.

1.2 School and day-care structure in Norway

1.2.1 School structure

This chapter is based on information in a report from The Norwegian Directorate for Education and Training (Utdanningsdirektoratet, 2006). Norwegian children start school in mid-August the year they get 6 years old. The public primary and lower secondary education (“grunnskole”) comprises classes 1-10, and is divided into lower primary school (“barnetrinnet”, class 1-4), upper primary school (“mellomtrinnet”, class 5-7) and lower secondary school (“ungdomstrinnet”, class 8-10). After this, all children are offered three years in the upper secondary education and training system (“videregående skoler”). Physically, most schools are built either for classes 1-7 (“barneskoler”) or 8-10 (“ungdomsskoler”), but especially in municipalities with low amounts of people, schools comprising classes 1-10 (“barne- og ungdomsskoler”) are common. Some schools with few pupils mix the classes to obtain convenient groups for teaching (“fådelte skoler”).

Nearly 100% of the youth start an upper secondary school, but quite a few do not complete the three or four year education. During 1997-2000, about 14 % dropped out of general studies programs (3 years at school), whereas 36 % dropped out of vocational programs (2 years at school + 2 years apprentice).

About 620 000 Norwegian pupils attain the primary and lower secondary schools. In total, there were 2974 such schools during 2006-07, generally owned and administrated by municipalities. 170 primary and lower secondary schools are independent, mainly Waldorf, Montessori and schools run by Christian societies. About 40 schools are closed down each year, mainly schools in rural districts with few pupils. The number of pupils attaining large schools is increasing; per 2006, only 8 % of the children attain schools with < 100 pupils, whereas 53% attain schools with > 300 pupils.

In 2006-07, the total number of pupils in the upper secondary education was 193 000, and there were 454 such schools out of which 74 were independent. The other 376 upper secondary schools were owned and administrated by the counties. As can be seen from the much lower number of upper secondary schools, these schools have much higher numbers of pupils per school, and are commonly localised in cities so that the youth must travel longer distances or stay away from their family in bedsits (“hybel”).

1.2.2 Day care organisation

Norway and the other Scandinavian countries are known for a good economic support to families with small children. Employed women get their normal wages paid by the government for 10 months after giving birth, and it is thus quite common to stay at home with the child in the first year. Non-employed women receive a grant of 4200 € after giving birth. This amount is very small as compared to the support that employed women receive.

In 1998, an economic support (“kontantstøtte”) for parents choosing not to put their children into day-care institutions before the age of 3 was introduced (more at <http://no.wikipedia.org/wiki/Kontantst%C3%B8tten>). The support is still much discussed. In 2004, about 75000 children received the support, which comprises 3300 NOK per month if the child is not at all in institution; less if the child is e.g. half-time in a kindergarten. The current political debate is about how fathers can/should be encouraged, or even pressed, to take over more of the maternity leave period than the current four weeks of mandatory paternity leave.

Very much public funding has been used the last years to achieve a political goal that most political parties agree to, that there shall be enough places in kindergartens for all children where the parents demand this. In November 2007, the Ministry of Education and Research proposed a regulation that a place in a kindergarten shall be statutory for all children, imposing the municipalities to organise enough kindergartens to achieve what is still a very ambitious goal in municipalities (cities) with rapid population growth. Since January 1st 2006, there has also been a maximum price level of 2250 NOK (=280 Euro, 1 Euro = 8 NOK) per child and month (regulated by the price index to 2330 NOK in 2007).

Many kindergartens serve warm meals in addition to the packed food that the children bring themselves, and all kindergartens serve milk and fruit. Extra money must be paid for the food served in the kindergarten.

When the children start school, they may visit a before- and after-school care, commonly located in the school building and open e.g. from 07:00 to 17:00, also in school holidays. It is common to prepare and serve some food (sandwiches or simple warm dishes) during before- and after-school care hours, but this varies a lot from school to school and must be paid for. Children from classes 1-4 may attain this care system; for children with special requirements even up to class 7. As mentioned in chapter 1.2.1, the municipality is imposed to offer a before- and after school cares system, but it is not mandatory to offer the pupils any food during this care.

In total there are 6474 kindergartens in Norway, and about half of these, 2909 are owned by municipalities. The others are either categorised as private (2434), run as cooperatives with public support (called “family kindergartens”, 999) or owned by enterprises (149). Information of the numbers in each category was found online at

http://ped.lex.no/4daction/WA_Grupper/?Gr=930_950_955_960&Tittel=Alle%20barnehager&Find=&Bokstaver=.

The reason for the sum of kindergartens in each category being 6491 (and not 6474) is probably that it is difficult to keep updated records of so many institutions. Some private companies have specialised in building and administrating kindergartens, e.g. Kanvas (38 kindergartens in 7 municipalities around Oslo and Bergen), Barnebygg (130 kindergartens spread over southern Norway).

1.3 Regulatory framework

In Norway in 2007, the school meal is in general a packed lunch that the pupils bring with them from home. In addition, there are subscription schemes for milk (starting in the early 1970s) and fruit and vegetables (starting mid 1990s). These subscription schemes are subsidized and paid by parents. Since August 2007, the serving of fruit has been paid by the government on all schools that include a lower secondary level (classes 8-10), plus on all schools in some selected areas where free fruit was regarded as especially important for diminishing social inequalities. On upper secondary schools there are canteens where warm dishes etc may be purchased during lunch time, commonly organised as enterprises run by the pupils (“elevbedrift”). More information about financing of the food and drinks served in school is found in part 3.

1.3.1 *The history of the Norwegian packed lunch - Why there are no warm meals in Norwegian schools*

Around 1880, charity kitchens (“suppekjøkken”) offered warm meals to poor school pupils outside the school setting in Oslo. In 1895, the municipality took over this service, and offered free, warm meals to poor children in school, whereas more wealthy children were offered to buy the same food at a cheap price (Anonymous 2002). In 1897, the second largest town in Norway, Bergen started the same public service, so that poor families could apply for free, daily warm meals in school for their children (Nielsen 2002). The system of means-tested, warm school meals continued until ca 1935, and might have been developed to a warm lunch meal for all pupils in Norway as in other European countries, if it had not been for the strong efforts of some enthusiastic food-and-health pioneers. Ms. Henriette Schønberg-Erken (1866-1953) worked to inform people about the importance of food and household; she established a vocational school in cooking in 1908, wrote textbooks in cooking that are still famous, and she cooperated with the school chief physician (“skoleoverlege”) in Oslo, Carl Schiøtz. Schiøtz entered his position in 1918, and he was not at all happy with the food that the children were offered in school (Alsvik 1996). He criticised it for being constructed for a rapid and in-human food intake, and argued that the long-boiled food was like gruel (“velling”, thin porridge). The cooking filled the schools

with unhealthy odours. Schiøtz argued that it was important for children to chew the food items, and learn how to behave properly during a meal (take off coats, relax, talk and listen etc). He also argued that boiling destroyed the food quality. Hence, he introduced the “Oslo breakfast”, which was comprised of whole-grain biscuits and whole-grain bread with margarine and cheese, 0.5 litre of fresh milk, and to complete the meal, a piece of raw vegetable or fruit (carrot, apple, orange, banana). Later, cod-liver oil was added to the meal in winter months. The breakfast term refers to that the breakfast was served before the education started in the morning (Anonymous 2002), to increase the learning ability of the children.

The teachers in the first school in which this meal was introduced complained about the time that was demanded for the meal (because of the chewing!), and that the children were annoyed by the hard “work”. However, they experienced that this was initial difficulties, and the ultimate criteria for success was that the skinny children increased their weight much more efficiently with this meal system than with the old, warm meals (Alsвик 1996). In 100 years, the situation has indeed changed in our countries...

From 1935, all schools in Oslo offered the “Oslo-breakfast” to all pupils (Bjelland 2007), and other cities such as Bergen also changed their warm meals and adapted the Oslo-breakfast (Nielsen 2002). However, many Norwegian municipalities were too poor to offer free meals. In 1936, another enthusiastic medical doctor wrote a famous pamphlet about the “Sigdal breakfast”, naming it after his rural district. The idea of the Sigdal breakfast was that the pupils should bring the ingredients for the Oslo breakfast with them to school. The Sigdal breakfast concept rapidly diffused into the society, and was transformed to the well-known Norwegian packed lunch (Døving 1999). This packed lunch (“matpakke”) has become such a well-established tradition that Norwegians tend to believe that a cold meal for lunch is the only natural thing, and that eating something warm for lunch (in addition to a warm dinner) would be fattening and unhealthy.

The school meals was rather restricted during the 2nd world war (1940-45 in Norway), but afterwards the school breakfast had a renaissance. However, as the wealth increased among people, it was agreed that the money used for food in schools would be better utilised e.g. for school buildings, and the meals gradually disappeared. In Bergen, school breakfast was offered until 1954, and by then, about 30% of the pupils received the meals (Nielsen 2002). In Oslo, the schools changed to the Sigdal breakfast system in 1963; the pupils then brought their own sandwiches, but the school organised serving of milk and raw vegetables.

1.3.2 Legislation

1.3.2.1 Public regulations

The education and infrastructure that the Norwegian schools are imposed to offer the pupils, the rights of the pupils with respect to evaluation, etc., are governed by the public regulation “Opplæringslova” (The law of education, online at <http://www.lovdatab.no/all/nl-19980717-061.html>) and the public guidelines linked to this regulation

(http://www.regjeringen.no/upload/kilde/kd/reg/2006/0034/ddd/pdfv/284963-ny_forskr_til_oppl.pdf). None of these documents mention school meals or food, not even in the

before-and after school care, which all municipalities are imposed to offer (Opplæringslova § 13-7).

However, in § 9a, “The school environment of the pupils” it is stated that all pupils have the right to a good physical and psycho-social environment which is promoting their health, well-being and learning capacity (in Norwegian: Alle elever i grunnskolar og vidaregåande skolar har rett til eit godt fysisk og psykososialt miljø som fremjar helse, trivsel og læring).

The Directorate for Health and Social affairs (SHdir) administrates and interprets social and healthcare legislation on behalf of the Ministry of Health and Care Services and the Ministry of Labour and Social Inclusion. The SHdir refers to the legislation referred above as one of two points of reference for the

Norwegian school meal system (see online document at http://www.shdir.no/vp/multimedia/archive/00006/Resultater_fra_skolem_6581a.doc).

The other relevant point of reference legislation for Norwegian school meals is found in "Forskrift om miljørettet helsevern i barnehager og skoler m.v." (Regulation for environmentally adapted health care in day-care centres and schools of December 1st, 1995; online at <http://www.lovdatabank.no/cgi-wifit/ldles?doc=/sf/sf/sf-19951201-0928.html>). In this regulation, paragraph 11 describes that the environment must be organised to ensure that the children are able to have meals: § 11. Meals ("Måltid"). Appropriate possibilities for feeding shall be found, which also protect the social function of the meal. The enterprise shall possess of sufficient infrastructure for storing, preparing and serving the food as required by the public regulations about food articles, as required for the extent of the food serving. ("Det skal finnes egnede muligheter for bespising som også ivaretar måltidets sosiale funksjoner. Virksomheten skal i nødvendig utstrekning ha tilfredsstillende muligheter for lagring, tilberedning og servering av mat i samsvar med næringsmiddelovngivningen"; translation by the author).

Based on this law, the SHdir has prepared guidelines for school meals (Appendix 1), and guidelines for meals and food served in day-care centres (Appendix 2). Relevant parts of these documents are translated to English by the author. A summary is provided in chapter 1.3.2.2. To advocate the importance of appropriate meals in schools and day-care centres, a national council closely related to the SHdir is active; see section 1.4.1.1.

1.3.2.2 Public guidelines for schools and day-care centres

In their guidelines to school meals (common for primary, lower secondary and upper secondary school), the SHdir emphasises that the school meal is a central element to create a good environment for learning and well-being, that the meals influence the pupils' health (short- and long-term). Their basic position is that the pupils are expected to bring their own packed lunch to school, but that all should be offered milk and fruit/vegetables, and that those who do not bring their own food must be served some (!). Whole time access to cold drinking water is mentioned. Sufficient time must be used for the meals, at least 20 minutes, and an adult should be present during the eating at least in classes 1-4. Food served or sold at school should be healthy and contain little sugar and fat; recommended is whole-grain bread, water, fat reduced milk, fruit and vegetables ("five per day"). Soft drinks, chips, snacks and sweets should be avoided, and cakes etc. should not be served daily. Lower secondary schools should organise a canteen or booth where the pupils can purchase food. The guidelines should be regarded as a standard for school owners and school administration (managers).

In the guidelines for day-care centres, the SHdir emphasises that for small children, a significant proportion of the total intake of food and drinks occurs in the day-care centre; either this is brought by the children or served at the centre. Hence, even if the parents are responsible for the children's diet, the large influence of the day-care centre on the children's eating habits, diet and health must be considered. Also here, the public authority strives for less fat and sugar, more fruit and vegetables and whole-grain bread. Eating periods should be two per day and last for at least 30 minutes. More details are found in Appendix 2, which can be translated upon request.

1.3.3 Certification

This chapter is based in information from Debio, found online at <http://www.debio.no/index.cfm?id=1-0-0-3>.

In Norway, the Norwegian Food Safety Authority (NFSA, Mattilsynet) is responsible for the certification of production, processing and distribution of organic food. NFSA has delegated the task of inspection to the former responsible certification body Debio, which was established in 1986. The agreement with NFSA authorizes Debio to make individual decisions on the certification and invalidation of operators (Debio, 2007). Debio performs annual inspections to ensure that farms and fish farms (primary producers), processing and marketing enterprises and importers follow the regulations for organic

production. By the EEA agreement, Norway is subject to EU regulations for organic production even if Norway is not member in the EU.

In addition to fixed annual inspections, Debio's inspectors also perform unannounced inspections. At the end of 2005, a total of 2496 farms and 354 other operators were registered in Debio's inspection scheme. In addition to the public-law regulations for organic production, Debio has its separate private-law regulations for organic aquaculture, textile production, forestry, wild products and farm inputs.

Debio is a private, non-profit association based on membership with members from all three categories (production, processing/marketing and import). Debio is accredited by Norwegian Accreditation according to the quality standard ISO 65/EN 45011, and by the International Federation of Organic Agriculture Movements (IFOAM). Debio's main office is located in Bjørkelangen, about 60 km east of Oslo. The staff consists of a total of 42 employees, of which about 25 work at the main office. The remaining 17 are primary production inspectors, who usually are based in the region in which inspections are performed.

Debio is the owner of the Ø-label (Fig. 2) and other registered labels for production and marketing certified by Debio. Debio's minimum requirements for organic production and marketing, including the Ø-label certification, shall agree with the minimum requirements in the statutory provisions for organic production and marketing. The Ø-label can also be applied to imported products that are certified by an accredited body in the country of origin, in accordance with regulations that correspond to Norwegian rules and regulations



Figure 2. The Norwegian Ø label, owned and administrated by Debio (www.debio.no). Similar to the Danish Ø label, the letter Ø symbolises the Norwegian word Økologisk = Ecological.

Serving outlets may apply to become affiliated to the Debio certification system, and thereby utilise the Ø label in the marketing of their service and products. They can choose between a permanent affiliation period and a temporary (e.g. music festivals). During permanent affiliation, 5% of non-organic ingredients are allowed in an organic meal. If organic products are not available, meals may be offered as partly organic, e.g. "Meatballs with organic potatoes", or the menu may show that "this canteen uses organic milk and potatoes". Relevant information about the certification og serving outlets is shown in Norwegian in the following files:

[http://www.debio.no/_upl/vil_du_tilby_\(liten_fil\).pdf](http://www.debio.no/_upl/vil_du_tilby_(liten_fil).pdf)

http://www.debio.no/_upl/kort_om_storkjoekken_og_servering.pdf

http://www.debio.no/_upl/oe-vett_paa_kjoekkenet_stort.jpg

In 2006, 31 enterprises were certified for serving meals. The contact information of these enterprises is found online at

<http://www.debio.acos.no/rapport5.asp?Print=>, and as Appendix 3. Mostly these enterprises are hotels serving some organic products at their breakfast and lunch buffets, but there is also one school and some catering companies (Eurest, ISS).

1.4 The context in which (organic) school meals are discussed and organised

1.4.1 Important promoters of organic food and school meals

1.4.1.1 The National Council of Nutrition

The National Council of Nutrition (Statens ernæringsråd; in 1998-2003 Statens råd for ernæring og fysisk aktivitet 1998-2003; since 2003 Nasjonalt råd for ernæring) has been actively promoting a high-quality school meal since they were first established in 1946. A major goal for the council is to promote the nutritional situation for the Norwegian population. The council is an organ for competence and administration under the Ministry for Health and Care Services in issues related to nutrition, health and during 1998-2003, physical activity. The Ministry appoints 15 experts to the council each 4th year, and the council is financed by the SHdir. In 2006, the council launched a strategy plan which is also available in English, "A healthy diet for good health" (online at http://www.shdir.no/vp/multimedia/archive/00007/IS-1259_Engelsk_7033a.pdf). In this plan, the primary focus is to reduce the consumption of solid fats, sugar and energy-dense, nutrient-poor foods, while increasing the consumption of fruits and vegetables. Four areas of high-priority have been identified, and in the context of this report it is interesting that the school sector is mentioned. The areas are as follows: Actions to encourage healthy choices, actions in educational institutions, actions in the health services sector, actions to enhance knowledge through monitoring and research and also information and communication. As the National Council of Nutrition is closely related to the SHdir, the SHdir as such has not been listed here as a separate important promoter of school meals.

1.4.1.2 The Ministry of Education and Research

In 2005, the Ministry appointed a working group to elucidate the state of art for Norwegian school meals, and suggest ways to organise school meals that will contribute to more efficient learning, better health and diminishing social inequalities. The report was launched in 2007, proposing that fruit and vegetables should be served for free in all Norwegian schools because that would increase the fruit intake among pupils from all social classes. They also suggest that the milk serving in school should be paid by the public, and to introduce test serving of bread-based school meals in the lower secondary schools, thereafter also in the primary schools. The group was lead by professor in nutrition, Dr. Knut-Inge Klepp and the report (in Norwegian only) is found online at http://www.regjeringen.no/upload/kilde/kd/rap/2006/0008/ddd/pdfv/284882-skolemaltid_26.06.06.pdf

In recent years it has attained large attention that Norwegian pupils are not performing well in international tests of knowledge and skills, e.g. PISA tests. Especially the boys perform poorly in reading and other skills. It is argued that removing structural elements like traditional classes, one contact teacher per pupil being the only fixed structure in some schools, and putting more responsibility on the pupil for his or her own learning, is not well adapted to the behaviour of young boys. Norwegian pupils are behind other Nordic countries, especially Finland, in mathematics and natural science. At the same time they are complaining about noisy classrooms and that it is hard to concentrate on learning. These topics have received more attention than health and nutrition in the Norwegian public debate the last few years.

1.4.1.3 Oikos

In Norway, the main political actor to promote the consumption of organic food is the organisation Oikos (more information online at <http://www.oikos.no/newsread/news.asp?DOCID=10123&wce=dokument>) Oikos was founded in September 2000, when three organic organisations merged into one. The aim was to establish one organic movement and strengthen the organic voice into the Norwegian landscape of politics, economics and social life. Today, Oikos is the only organisation representing organic producers and consumers, except for Demeter Norway. However, we cooperate closely, and Demeter Norway is

represented in the Oikos National Board. In 2007, Oikos had 1800 members. Oikos has eight regional groups, working voluntarily in close contact to county authorities and other stakeholders in the region. On the local level, 25-30 local groups are active. The main office is located in Oslo, and eight people are employed in projects, as magazine editors and administrative staff. The executive leader is Mr. Reidar Andestad, reidar@oikos.no. Oikos is a non-profit, idealistic organisation and member of the IFOAM (International Federation of Organic Agriculture Movements). Oikos runs projects in addition to political lobbying and meetings with stakeholders in the food-sector and the agricultural sector. The main project activities are to increase the visibility of organic food in food stores, and to facilitate the use of organic food at festivals.

Oikos has not worked much to introduce organic food in schools, but has been active to influence TINE, the dominating dairy company in Norway, to offer organic milk at schools.

1.4.1.4 Socialist Left Party, SV

In 2005, elections were held for a new government in Norway, and one of the three political parties that were included in the government (Socialist Left Party, SV) had promised free warm school meals for all Norwegian pupils if they were elected. However, in the inaugural address of the social-democratic government (called the Soria-Moria declaration from the hotel where it was made) they had to compromise this ambitious goal, and declared this aim:

To introduce an arrangement with fruit and vegetables in the schools, and prepare for experiments with school meals (in Norwegian: Innføre en ordning med frukt og grønt i skolen og legge til rette for forsøksordninger med

skolemat. Online at: <http://www.regjeringen.no/upload/kilde/smk/rap/2005/0001/ddd/pdfv/260512-regjeringsplattform.pdf>, p 47). Still, the SV party has been the most active to advocate for the introduction of a free lunch meal in Norwegian schools, arguing that this is the normal practice in Sweden and that it will facilitate the learning process in school, using the slogan “læring - ikke bare ernæring” (school meals is about learning, not only nutrition). The last 5-6 years, the length of the school days has increased and this development will continue. Many children stay in the school setting (before- and after- school care included) for 8 hours, and so long residences make the school meals more relevant. Further, the eating pattern of children and youth is not satisfactory; they tend to eat too much chips, snacks and sugar-rich soft drinks, and too little fruit, vegetables, fish and whole grain bread. A free school meal for all is intended to support people’s health and well-being, learning ability and eating habits (e.g. read the arguments used by SV in 2005 here: <http://www.sv.no/troms/personer/dbaFile16846/kronikker/dbaFile88228.html>). In June 2005, SV proposed to the parliament to introduce school meals in Norway. The decision was to elucidate financial and practical consequences of such an arrangement within June 2006. The topic was heavily debated during the election campaigns, with political opponents claiming that a free school meal would cost 2.5-3.5 billion NOK per year (2500-3500 million NOK; 1 Euro = ca 8 NOK). Many people argued that the resources rather should be used at renovating school buildings and more pedagogic personnel.

The school fruit subscription scheme is the first step towards a free school meal for all. Since August 2007, all schools with a lower secondary level in addition to 20 000 pupils in selected (low income) parts of Oslo, Drammen and the county of Finnmark receive free fruit. (More info at <http://www.regjeringen.no/nb/dep/hod/Pressesenter/pressemeldinger/2007/Gratis-skolefrukt-for-utvalgte-barneskole.html?id=477312>).

1.4.1.5 Involvement from the parents

All Norwegian primary and lower secondary schools have parents’ boards (“foreldrenes arbeidsutvalg”, FAU), and in some municipalities these boards are cooperating in a municipal board. From these boards, parents are appointed by the Ministry of Knowledge and Education to The National Parents' Committee for Primary and Lower Secondary Education (Foreldreutvalget for grunnskolen - FUG). FUG has not been working very actively with school meals. No statements about school meals were found on their web site on November 20, 2007, but in an e-mail from FUG senior advisor Randi H. Jørgensen,

November 28 2007 it was explained that FUG was active in the board producing the report referred in chapter 1.4.1.2. When the leader of FUG, Loveleen Brenna, has expressed herself about school meals, she has emphasised that FUG is positive about all efforts that foster the health and well-being of the pupils, and may increase their ability to perform well in school. Further, she argues that efforts such as school meals should be financed by the public, and that large individual differences in school meal systems between schools and municipalities should not develop.

The organisation “Skolematens venner” (“Friends of the school meal”, <http://www.skolematensvenner.no/>) is working very actively to promote school meals. The organisation is a private foundation, where enterprises and others may support by paying membership fees. The vision of the organisation is, by means of their competence, to reduce future social problems and diseases related to lifestyle, by advocating for the implementation of a free, warm and nutritionally correct lunch meal in Norwegian primary and lower secondary schools. The overall goal is to increase the understanding of the importance of a good nutrition for children and youth. On their web site, several experiments with school meals throughout Norway are described.

Norway has a high share of employed women. Even so, the women are commonly the most active in the households to perform the food shopping, and decide about the family’s menu. Traditionally, Norwegian families eat one warm meal per day, a dinner with potatoes, meat or fish and boiled vegetables, around 17:00 when the parents have completed their work. New, more convenient food items like frozen pizza is changing the picture of what it is common to eat for dinner, but for most families it is considered as very important to sit together around the dinner table, preferably every day.

1.4.2 Food on the school plates.... practical hindrances

1.4.2.1 Hindrances on school level

If the parents or other stakeholders at a single school want to introduce a school meal, they will face many challenges. The foremost problem is the costs, especially related to personnel required to administrate and serve the meals, and that the school usually lacks the infrastructure required to store, prepare and serve the food, and clean the plates or handle the waste from disposable eating utensils. There are no regulations to prohibit sale of food in Norwegian schools. In some schools, a canteen is managed on a daily or occasional basis by the pupils and one responsible teacher (“Elevbedrift”) as a part of the subject contracting (“entreprenørskap”).

Practical examples show that at some schools, the staff has managed to come across these hindrances. However, these schools are very few. Interesting examples may be found at the website of “Skolematens venner”, <http://www.skolematensvenner.no/>. One Montessori school in Solør, Hedmark serves a warm lunch for 54 pupils every day (described in the newspaper Nationen on September 1, 2007 p. 6) and the experiences are good. One probable reason why not more schools offer meals may well be that many teachers and headmasters/school administrators think that serving food is not the most important school task, and do not prioritize it. As shown in the interview with the headmaster referred below (with regard to the worries about fruit waste), several stakeholders think that more public money for the school sector can be better utilised for other purpose than school meals, and that feeding their children is a task for the parents, not the public.

In practice, a bottom-up initiative on a single school would have to work through the FAU (see 1.4.1.5), and ally with one or more engaged teachers (or possibly the headmaster) who is positive to the idea, open to discuss practical arrangements and prepared to devote some work time into it. Top-down initiated projects where some public funding has been given to pay for the food + the work linked to serve cold meals in school (“make your own sandwiches at school”-meals) have proven very successful (popular among the children, the teachers experienced better learning ability etc). However, few if any municipalities have earmarked funds for school meals in their school budgets. One probable explanation for this may be that local politicians and administrators are waiting for the government to take actions and allocate money for this task. The introduction of free fruit on the schools with a lower

secondary level since August 2007 is a step in that direction. After the free fruit arrangement was decided, there was a large concern that the free fruit serving might create problems of waste in school campuses because the pupils would not eat all fruit every day (e.g. <http://www.nationen.no/mat/article2933066.ece>; <http://www.adressa.no/nyheter/sorlandelag/article912490.ece>). The problems did not become as large as the some people warned about, but some problems have been described (<http://www.nrk.no/nyheter/distrikt/sorlandet/1.3991244>). To avoid that fruit become a problem of waste, the schools may arrange the fruit serving e.g. such that the fruit is sliced and shared among all in the classroom, or served in the first break when many start to get hungry in stead of in the lunch break).

1.4.2.2 Hindrances on delivery

If a school would go for warm, easy-to-prepare meals it is a problem in Norway that no catering companies are specialised in delivering this. On municipality level, in larger municipalities it is a problem that the schools are bound by the municipal purchase agreements to buy food from certain distributors. E.g. in the town Kristiansand, the municipality had a purchase agreement for fruit and vegetables with BAMA in 2007. Even if some schools in this municipality wanted organic fruit delivered to their schools, and BAMA could not deliver more that one organic fruit per week (which is their strategy on how to achieve 20 % organic), the schools were not allowed to choose a delivery from a 100% organic company. Norway is scarcely populated and transport is costly; hence food delivery at all schools is an extra cost.

To sum up public and political debate on school meals the arguments in favour a public school meal system are the following:

- Social equalisation (lower income families generally eat less fruit)
- Young people should eat more fruit and vegetables (and less fat and sugar)
- Better school environment and learning capacity

On the other hand, the following arguments are raised against the extension of the school meal system

- Resources are more required to renovate buildings, buy new books etc
- Food is a private responsibility
- There are not only good experiences in countries with free school meals

School meals and the school fruit scheme have received much attention in recent years, and so has organic food in general. However, there is not much focus in the public debate to combine these issues.

1.5 References

The reports referred are easy to find on the web. Translations if demanded.

2 Statistics, based on existing data

2.1 General statistics, primary and lower secondary school

As described in chapter 1, Norway has 431 municipalities, 19 counties, and no formal regions. The number of primary and secondary lower schools is shown in Table 2. Online at the address below one may find the number of schools in each municipality in each county. The number of upper secondary schools is found at the same web site, www.udir.no.

Schools per municipality:

<http://194.143.25.137/udir/index.jsp?mode=documentation&submode=catalog&catalog=http%3A%2F%2F194.143.25.137%3A80%2Fobj%2FfCatalog%2FCatalog&top=yes>

Table 2. The number of Norwegian primary and lower secondary schools per county 2000-2006. Source: Norwegian Directorate for Education and Training (www.udir.no).

	School year					
	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006
Whole country	3 260	3 248	3 237	3 210	3 192	3 162
Østfold	132	133	133	134	134	131
Akershus	241	241	242	244	243	243
Oslo	131	132	132	132	133	137
Hedmark	154	155	155	150	149	146
Oppland	164	164	163	158	158	158
Buskerud	152	151	151	151	151	151
Vestfold	128	128	129	130	131	129
Telemark	141	140	139	137	137	135
Aust-Agder	80	79	80	81	73	71
Vest-Agder	112	112	114	115	112	111
Rogaland	241	243	244	246	247	249
Hordaland	346	344	343	339	337	330
Sogn og Fjordane	149	147	143	141	138	138
Møre og Romsdal	259	259	255	251	246	240
Sør-Trøndelag	176	174	172	169	170	169
Nord-Trøndelag	120	120	120	120	120	117
Nordland	271	266	264	258	259	256
Troms	162	160	159	156	156	154
Finnmark	100	99	98	97	97	96

Addresses and other contact info to all Norwegian schools may be found at:

http://www.pedlex.no/4DACTION/WA_Adresse or in the GSI register (Grunnskolenes Informasjons System), www.wis.no.

2.2 Statistics of schools offering lunch meals (= milk and fruit agreements) how many of these are organic; situated geographically

The eating patterns of Norwegian pupils during the school day were studied in 1991, 1997 and 2000 in all Norwegian primary and lower secondary schools. A broader study of the eating patterns among young consumers was carried out among pupils in classes 4 and 8 in 2000; and in classes 7 and the second year in the upper secondary level in 1993. More information (in Norwegian) about these studies can be found at:

http://www.shdir.no/skolehelsetjenesten_helsestasjo/ern_ring/fakta_om_kostvaner_og_skolem_ltid_b_lant_barn_og_unge_37004

Table online at:

http://www.shdir.no/vp/multimedia/archive/00006/Resultater_fra_skolem_6581a.doc

Results from the study of school meals in 1991, 1997 and 2000 in all primary and lower secondary schools in Norway. Share in %.

	1991	1997	2000
Pupils being accompanied by an adult (class 1-4)	64	81	93
At least 20 minutes available for eating			
Class 1- 4	25	37	51
Class 5- 7	25	32	38
Class 8- 10	43	53	61
Possibility to buy food items (class 8-10)**	7	19	55
Packed lunch brought from home			
Class 1- 4	98	97	99
Class 5- 7	96	95	95
Class 8- 10	83	77	75
Fruit or vegetable brought form home***			
Class 1- 4		33	26
Class 5- 7		27	20
Class 8- 10		17	13

In 2000, 4% of the lower secondary schools sold beverages. Only 36% of the schools mentioned easy access to drinking water (fountain).

3 Organisation and objectives of different types of lunch meal systems for youth

3.1 The present status of the Norwegian school meals

Organisation of lunch meal systems

3.1.1 General comments

The Ministry of Agriculture and Food has financed some experiments with school meals and school food items, focussing on healthy, locally produced and organic food.

National or regional companies in Norway specialised to offer food or complete meals for schools only are rare, but there is one private catering company in Bærum (close to Oslo), Mat360, which even promotes organic and local food. So far they deliver to 4 schools in Bærum, and the price is NOK 27 per day. <http://www.mat360.no/pages/skole.php?chapterID=2&pageID=2>

Some Norwegian schools have developed school meals, daily or some days a week. However, these are few and in this report, we will concentrate on the subscription schemes for milk and fruit (including carrots) that are open to all Norwegian schools.

Some schools have canteens where the pupils may eat their packed lunch or even buy some food, including milk (in 3 dl containers). Most schools do not have canteens, and the pupils eat their food in the class room. In general, lower secondary schools more often have canteens than primary schools. In some places pupils who demand some practical education are included in the food preparation and selling. Most upper secondary schools have canteens where the pupils may buy food, snacks and drinks, sometimes also warm dishes and salads. The canteen staff may be people in need of a short-time work or work training.

3.1.2 School milk subscription service

Since about 1970, the dominating dairy company in Norway, TINE, has offered milk as a subscription service to primary and lower secondary schools all over the country. 99% of the schools participate in the service, and almost 60% of the pupils subscribe to some kind of milk variety (see below). However, organic milk is only offered in three test areas. The milk is brought to the school once or more times per week by TINE, stored in a refrigerator, and brought to the class room by the class monitor of the week, who picks up the relevant milk containers.

Upon request, TINE has provided this information about organic school milk:

The organic school milk is provided in containers of 0.25 l. The official name is "TineMelk Lett Økologisk ¼ liter". In 1 litre containers, organic milk is distributed all over the country except in the most Northern counties. TINE is engaged to protect the environment, and acknowledges their responsibility as a large company to act responsibly. In 2001, the demand for organic milk increased rapidly, increasing sales of organic milk by 134%. Hence, TINE decided to offer organic milk in areas where excess organic milk was available. The first test area was Østfold county, where a dairy was preparing containers of organic milk. The aim of the test period was to increase the pupils attention of organic milk, and to utilise more of the organic milk (sell it as organic). In the autumn of 2004, organic food milk received much attention because the NGO "Grønn Hverdag" and the Oikos magazine "Ren Mat" started a campaign that TINE should make organic milk available at all schools in Norway, not only in Østfold. Since then, the Østfold dairy is closed, but the current test areas are the county of

Rogaland, the city Kristiansand and the region of Mid-Norway. TINE will increase the test areas when there is enough organic milk available.

More about the first test area, inner parts of Østfold county:

On November 15, 2001 TINE changed the conventional milk (1.5% fat) by organic milk (1.5% fat) in about 100 schools in the inner part of the Østfold county (including Oppegård and 11 schools in Oslo). The milk was processed at a dairy in the inner part of Østfold, which was closed in 2005. A dairy in Porsgrunn took over the bottling of organic milk, but this dairy was closed in January 2007. Pupils in inner parts of Østfold received organic milk until August 2006, and about 50% of the children were subscribing to the organic milk. No schools have complained to TINE that the milk has not been offered as organic since 2006. Currently, there is not enough organic milk available to offer organic school milk from the relevant dairy in this region, which is now Tine dairy Øst (East).

Rogaland

In Rogaland, the NGO "Grønn Hverdag" was very active to introduce an offer of organic school milk. They referred to a large interest from the schools, and hence TINE started a pilot project in Stavanger and northern parts of the Rogaland county the autumn of 2005. First the organic milk was bottled in Haugesund, but the autumn of 2006 moved to Tine dairy South at Sola. TINE demanded that the schools had to choose either organic or conventional milk. Currently, organic school milk is offered from the TINE dairies in Sola and Haugesund.

Kristiansand

In Kristiansand, a pilot project was started on November 15, 2005 as a direct consequence of a feature in a TV programme called "Forbrukerinspektørene, FBI" (The consumer inspectors) in the national broadcasting channel NRK. The FBI was informed by the NGO "Grønn Hverdag". Out of the totally about 2000 pupils, 660 decided to subscribe to organic milk. Several schools had a full assortment of milk (meaning organic + conventional). The organic milk offered in Kristiansand is bottled at Sola. Because of the restricted amounts of organic milk available, TINE South in cooperation with Grønn hverdag has agreed upon a maximum level of organic milk that is offered. However, after a new milk type was launched in the autumn of 2006, the demand for organic school milk has decreased significantly. This new milk was made sweeter by processing the milk sugar, and flavoured with cocoa (called "TineMelk Kakao"). One reason for the decreased demand for organic is probably that the pupils prefer the cocoa milk, but it may also be that the schools want to restrict the milk assortment. Recent statistics from TINE South show that 32 primary schools have purchased organic school milk during 2007. About half of these have a consistent offer of organic milk to the pupils. In addition, four schools buy organic milk in 1 litre containers. This represents a decrease in organic milk consumption since 2006, see the Table:

Amount of organic milk (1.5% fat) in various container sizes sold by TINE (by 2008 the only dairy company delivering organic milk in Norway) from January to September in 2007 as compared with 2006; amount in litres.

Container type	Sold in 2007	Sold in 2006	2007/2006
Bag-in-box, 10 litres	6380	8440	76
Normal, 1 litre	717.207	564.357	127
School type, 0.25 litre	78.819	111.590	71

Mid-Norway

In Mid-Norway, the dairy at Røros is bottling the school milk containers, and organic school milk is offered in the whole region, supplied by the dairies at Høgset, Tunga and Namsos.

Price

In the autumn of 2003, a differentiation was introduced in the scheme of price support for school milk, to achieve that the school milk should have an equal price irrespective of milk type. Since the autumn of 2007, price differentiation is again introduced, and additionally, the price is increased on all milk types. The organic and cocoa milk types are more expensive to produce, and hence these cost more for the pupils. Large investments are required to supply all schools and kindergartens with milk, and the prices must be adjusted to cover a larger fraction of the costs.

TINE offers these milk varieties: Fat reduced milk 1.5% (fat), organic fat reduced milk 1.5% (test areas only), fat reduced milk 0.7% and fat reduced milk 0.7 % with chocolate. The prices for the school year 2007/08 are 2.62 NOK per container for the conventional varieties and 3.11 NOK for the organic and the cocoa variety.

The milk sold to schools is subsidised from a purchase tax on milk administrated by TINE. In the premises for the subsidising it is mentioned that this support shall be for the good of the children. Hence, TINE argues that the schools should minimise the amount of money that they demand to administrate the milk subscription. The organic milk has been subsidised since it became available on the market. TINE does not market any kind of milk more than the other, and is loyal to the recommendations from the National Council of Nutrition about school meals, where fat reduced milk types are favoured.

3.1.3 School fruit

Upon request, the Norwegian fruit and vegetables marketing board (in Norwegian, Opplysningskontoret for frukt og grønnsaker) has provided information required to present the school fruit subscription scheme, including organic fruit and vegetables. The board is responsible for the administration of the scheme, in cooperation with the SHdir (see chapter 1.3.2.1).

Since 1995, Norwegian primary and lower secondary schools have been invited to participate in the school fruit scheme. The first schools that were offered public support to this scheme were in Østfold county, and since 2004 the scheme has been open to all schools in Norway. Due to the lack of personnel and facilities (most schools do not have canteens), only 41 % of the Norwegian schools participated in the scheme in 2006 (Bjelland 2006). Not all pupils subscribed to the fruit; on average, only 12% of the total number of Norwegian pupils subscribed in 2006 (28% of the pupils at the schools that were participating). Until August 2007, public funds supported each fruit by 1 NOK and the parents had to pay 2,50 NOK per fruit (subscription scheme paid twice a year). In addition, all schools where at least 50 pupils, or more than 40% of the pupils, are subscribing receive free refrigerators for storage. The support reflected the public aim to increase the intake of fruit and vegetables ("Five per day", see chapter 1.3.2.2). The fruit (and vegetable) types offered are apples, pears, bananas, oranges, carrots, kiwi, clementines, nectarines and peaches. In 2004, public regulations were launched about school fruit (in Norwegian: "Forskrift om tilskudd til prisnedskrivning av frukt og grønnsaker i grunnskolen 2004"), and detailed criteria for the quality (size etc) have been developed for all relevant fruit and vegetable varieties.

An evaluation of the scheme showed a slight increase in the total intake of fruit at the participating schools. However, as only about a quarter of the pupils participated, the effect was small, and it was assessed as a problem that those pupils who were eating most fruit and generally having a healthier lifestyle on beforehand were also subscribing to the fruits. A scheme with free fruit serving would have

been better to even out social differences and reach the target group of pupils getting little fruit at home (Bere, Veierød, & Klepp 2005). An experiment with free fruit serving in Norwegian schools showed that a payment scheme tended to fix the differences in fruit intake among pupils from different social classes, whereas free fruit serving increased the intake of fruit among all pupils (Bere et al 2005, 2006a, 2006b).

A large Norwegian distributor of fruit and vegetables, BAMA, offers fruits and vegetables to most Norwegian schools. In some municipalities there are small distributors who have specialised in delivering organic fruit and vegetables. A list of these distributors is shown as Appendix 6.4.

As described earlier in this report, since August 2007 the fruit has been served to all pupils without cost in all schools with a class 8-10 level. The total funding for this effort was ca 10 mill Euro (87 mill NOK). The money is distributed to the municipalities based on the number of pupils; 3.85 NOK per pupil per day. For private schools, the economic support is increased correspondingly. It is the responsibility of the owner of the school to administrate the fruit serving.

3.2 Norwegian iPOPY Cases

3.2.1 The Øya case

Øya is the largest music festival in Norway, which has been arranged annually in the Oslo area since 1999 (www.oyafestivalen.com). In 2007, approximately 65 000 participants/visitors and 200 concerts were arranged over 5 days. The organizers aim at giving the audience good experiences and providing Norwegian bands an arena to perform. The festival target group is young people (15-35 years).

Since 2002 Øya has had a special focus on environment and sustainability. First this included recycling and garbage handling, and in 2003 the organizers included organic food in their environmental profile. The environmental focus was partly a result of the placing of the festival in an area where they had to take environmental considerations, partly a result of wishing to make a festival that the organizers had been missing and appreciate.

The festival is not public in the strict sense, but do serve as a big public arena for five days, as well as having a public voice/role the rest of the year. In Øya's policy organic food should be served to "everybody" including artists, audience, guests and volunteers. The goal is to serve 100 % organic and today approximately 90% of the food served is organic. In 2007 in five days the festival served 24 tons of organic food to 65.000 paying participants, and also served volunteers, musicians and crew organic meals free of charge. For example, the volunteers (approx. 1 600 in 2007) were served one hot meal with a vegetarian option per day and had free access to organic bread, yoghurt and fruit throughout the day.

The restaurants that provide food at the festival are selected among Oslo restaurants that can provide "quality" and "more than just pizza". The menu includes mainly "finger food" such as hamburgers, fish burgers, pizza, wraps, nachos, hot dogs, crepes and thai food. Debio controls all the menus that are served at the festival, and menus approved by Debio are marked with the green and yellow Ø-label. If sponsors want to serve food at their stands, it has to be organic.

Øya functions as a wholesaler and orders the organic foods for all the restaurants, which seems to be an effective way to organise the procurements of food. The individual restaurants do not have to relate to several different wholesalers when the festival organiser takes care of the procurement and links wholesalers and the different restaurants. These contacts are also made through seminars for the restaurants, wholesalers, and producers arranged in the fore of the festival. This is both an arena where the Øya-festival set the (quality) standard for the festival and in some way function as a consultant for the participating restaurants- and an arena where new networks between restaurants, producers and wholesalers are created. Øya was the first music festival that was certified by Debio (the Norwegian certification body of the Ø-label) in 2003.

The Øya festival has since 2003 in cooperation with Oikos (National organization for organic producers and consumers) received funding from SLF (The Norwegian Agricultural Authority) in a project named: ØkoRock (OrganicRock). The main objective has been developing the festival as “an innovative arena for organic food”. One of the goals is to give the Ø-label and organic food a high profile. To paraphrase their project plan funded by SLF this includes marketing of organic, getting as much “spin off” from organic food as possible, developing existing supplier networks and working towards new networks. The ØkoRock project aims at developing packaging of organic food to suit food-service sector, promoting organic food produced in Norway as well as trying out new products. Further the project aims at creating good dialogue between restaurants, suppliers and producers for further cooperation and better sales of organic products in the short and long run. Even the price for buying an organic meal at the festival is set as an aim in the ØkoRock project: the price for an organic meal should not exceed NOK 50-60. The reason is to give the visitors the opportunity to eat organic at a cheap rate. (project 1.6.13 ØkoRock)

The goal of Øya is to serve 100 % organic food at the festival. To reach this goal, the organizers are not giving any of the participants at the festival a choice whether to eat or serve organic or not. Instead the choice is taken of the organizers beforehand, as the project leader of ØkoRock says:

“We set the frames, - that means we have made the choices. We wish to give the audience a good experience. I think trends are made through good experiences” (14.06.07)

The driving forces for Øya have been environment, sustainability, grassroot action, and innovation. The organizers of Øya (= 6 full time employees) would most likely have made the organic staking regardless of the authorities action plans and funding. They portray themselves as motivated idealists who are committed and buy organic food for themselves. Øya has set their own standards (for example, 100% organic food to everybody) and the festival has been in forefront for environment at festivals.

In 2006, 50 000 portions of organic food made out of 13 tons raw material were consumed at the festival. In 2007 these figures are expected to be approximately 24 tons of organic foods. Øya will continue with their organic food, because it is an inherent part of their profile. The organizers see that they through being a positive model can create a new trend. They see their role as being spokespersons for the public. Øya is today viewed as a model or show window for festival arrangements. They arrange seminars for other festival organizers, NGOs and organizers of sports events. In co-operation with GRIP (Norwegian Foundation for Sustainable Consumption and Production), Øya was central in publishing an environmental handbook for festivals in 2004. Øya is positioned as the most ‘politically correct’ festival with extensive recycling of garbage (11 fractions). Øya started with organic festival food in 2003 and today several music festivals and cultural events (approx. 20 in 2006 - OIKOS) have started serving some organic food. As a result, OIKOS has in 2007 received funding from SLF to employ a festival coordinator for organic food.

3.2.2 Trondheim municipality

There are about 250 kindergarten and 65 schools, both private and public, in the city of Trondheim. Of these, 61 kindergarten and 23 schools participate in “green children city”. Today there are 7 cities participating in “green children city” in Norway; 19 % of kindergarten and schools participating in “green children city” are located in Trondheim. All kindergarten and schools participating, use the international Green Flag certification (www.fee-international.org).as a tool to include an environmental action plan and to have an ongoing process with new target areas each year and annual certification. The “green children city” is well imbedded in an action plan for 2003 to 2012 of the municipality of Trondheim. The local council's executive committee has agreed to the goal to use at least 20 % organic food in public procurement by the year 2010. This decision has to be accepted by the town council in the end of November to come into force.

For most of the kindergarten and schools there is no regular offer of school meals except fruits, vegetables and milk. The main reason not using organic products is a higher price. There are about 15 kindergartens, mainly private, who offer porridge at breakfast, some kind of warm meal at noon and a

little meal in the afternoon. Often this offer is localized at one and the same kindergarten, which has to organise and to prepare the meals itself.

It is not possible to suggest how many organic products are used in the meals offered. Today organic products cost about 20 to 40 % more than comparable conventional products. The public kindergarten and schools are bounded to the purchased agreement of the municipality. From the 1. November 2007 there are new purchase agreements with probably more organic products to lower prices available. But details are not known yet. The Waldorf or Rudolf Steiner schools are private and offer more organic products but no organic meals.

To start a meal system depends mainly on the good will of the kindergarten or the school administration, but also staff members are important.

Typically the promoters of a lunch meal system are, with declining importance:

- The Norwegian Directorate of Health and Social Services (www.shdir.no)
- The County Governor (the chief representative of King and Government in the county; <http://www.fylkesmannen.no/fagom.aspx?m=10196>)
- The kindergarten and school administration
- The parents

The final decision about implementing a lunch meal system is taken by each unit itself; mainly by the administration in combination with the staff members, who also are responsible for operating the system.

More nutrition and fewer additives are the main arguments for using organic lunch meal ingredients, followed by a more environmentally friendly way of production.

The general objective of lunch meal systems is to offer children an adequate meal and enough meal for the entire kindergarten or school day.

Meals, vegetables, fruit and milk has to be paid by parents, often for the period of a month or a half year. Free fruit and vegetables are offered for pupils from 8th class or higher.

Key roles in the administration plays':

- The Ministry of Health and Care Services (<http://www.regjeringen.no/en/dep/hod.html?id=421>) and other administration with responsibility for health and childhood/growth
- The National association for public health (<http://www.nasjonalforeningen.no/>)
- The local kindergarten or school administration
- The agricultural office of the county governor (for use of organic products) (<http://www.fylkesmannen.no/fagom.aspx?m=10210>)

In relation to the lunch meal systems there is little support from children. Canteens can be supporting but are usually not interested in organic products. Parents and teachers support often a lunch meal system.

There is no information about how many children or pupils use a lunch meal systems and how big the percentage is.

To introduce a lunch meal system it is important that the parents deal the interest and support the introduction in line with the kindergarten or the school. Usually it is easier for private enterprises to introduce such a system.

Directives from the department or municipal agency of childhood/growth would ease the introduction of lunch meal systems, especially the mentioned goal of 20 % organic food in public procurement by the year 2010 too.

3.2.3 The Air Force Academy

The kitchen at the Air Force Academy in Trondheim provides breakfast, lunch buffet and dinner for about 120 students and employees. The food service also includes weekends. Fruits, water and soft drinks are available throughout the day. The students are aging from 20 to 30 years. Those that live at the academy campus (about 70 %) will normally turn to account all meals that the kitchen serves, while employees are only there for lunch during the week days. In addition to this, the kitchen generates important income through hosting parties and catering food for meetings and seminars. This amounts to nearly 50 % of the kitchen's total activity. The kitchen employs 6 regular staff and 4 apprentices.

It is FLO (Norwegian Defence System Management Division) through its Catering Management Section that is responsible for all food services in the Armed Forces. FLO is based in Oslo. A minimum framework and standard for the kitchens activities are set by FLO and it is the local kitchen management and the regional catering manager that are responsible to develop the kitchen beyond this. The food served at the Air Force Academy has a very high standard. According to the local chef Ole Morten Hansen, this standard is impelled by the regular eating guest and the external customers that buy catering services from the kitchen. Two important factors for the professional development of the kitchen are the Defence's strong focus on apprenticeships and the guidance the kitchen is getting from FLO.

The legitimacy of using organic products at the Air Force Academy is found in the political statement of cooperation for the present coalition government in Norway, the Soria Moria statement. The Armed Forces has initiated a project where the middle region of Norway is used as a model to reach the goal for organic public procurement that is set in the Soria Moria statement. The use of organic produce has also a strong legitimacy locally at the Air Force Academy kitchen where the chef emphasises their role in awareness rising and providing a healthier and tastier alternative. He also finds it important to send a signal that the kitchen does care about the environment and what the guest are eating.

FLO thinks that a meal eaten at one of their kitchens should provide more than just filling the stomach. Pål Harald Stenberg, project manager at FLO, says that they would like to provide the students with a respect for the food and the meal situation. In addition to this the food service should meet current recommendations and standards on nutrition and hygiene.

During the last years Operation Green Wave has been implemented in all kitchens of the Norwegian Defence. The aim of this campaign is to increase the consumption of fruits and vegetables. It has similarities to the present work with increased use of organic products. The chef remarks that campaigns like this generate extra work for him and the assistant chef in seeing to that all new routines are respected and lived up to. He also finds challenges related to procurement and stock keeping. The solution he sees to this is making solid routines, involvement of all employees and doing informational work. Having seminars and social happening are good means to establish a common feeling of ownership and loyalty toward the projects mission.

By the end of 2007 it is estimated that the use of organic food accounts for 10 to 20 % of the total expenditure that the Air Force Academy has on food procurement. The organic products might be semi skimmed milk, yoghurt, sour cream, full-fat buttermilk (kefir), cheese (Norvegia), breakfast cereals, dried fruits, unrefined sugar, bread, carrots, celery, potatoes, cabbage, cauliflower, broccoli, red peppers, onion, leek, some fruits, salmon, dried pasta, rice, wheat flour and various cooking oils. The kitchen puts emphasis on buying local products, if available.

4 List of references and literature (not complete)

For cited information that is available on websites, the links are referred directly in the text.

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- Wikipedia 2007: http://no.wikipedia.org/wiki/Norges_landsdeler
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5 Appendices

Summary over appendix

No	Subject
6.1	Guidelines for the school meal in primary and lower secondary school, and upper secondary school
6.2	Guidelines for food serving and meals in day-care centres (kindergartens)
6.3	Certified enterprises processing/import, category serving outlet
6.4	Addresses of companies delivering school fruit

(Translations by the author)

5.1 Guidelines for the school meal in primary and lower secondary school, and upper secondary school

(”Retningslinjer for skolemåltidet i grunnskole og videregående skole”)

By the Norwegian Directorate for health and social affairs (SHdir) (www.shdir.no)

Forankring i regelverket:

Lov om grunnskolen og den videregående opplæringen (Opplæringsloven) av 17. juli 1998.

Kapittel 9a. Elevene sitt skolemiljø, med § 9a-1 til § 9a-9, blir føyd til ved lov etter resolusjon av 20. desember 2002 nr. 1735 og trer i kraft 1. april 2003. Innholdet i kapittel 9a presiseres i de materielle kravene i Forskrift om miljørettet helsevern i barnehager og skoler m.v.

Forskrift om miljørettet helsevern i barnehager og skoler m.v.

Kapittel III Spesielle bestemmelser § 11. Måltid

Det skal finnes egnede muligheter for bespisning som også ivaretar måltidets sosiale funksjoner. Virksomheten skal i nødvendig utstrekning ha tilfredsstillende muligheter for lagring, tilberedning og servering av mat i samsvar med næringsmiddeloggivningen. (§ 11 is translated to English in the text, see chapter 1.3.2.1).

Remarks to §11 (”Merknader til § 11. Måltid”)

Sosial- og helsedirektoratets retningslinjer for matsservering og måltider i skole og barnehage bør legges til grunn ved matsservering slik at den ernæringsmessige verdi av måltidet sikres. Lov av 19. mai 1933 nr. 3 om tilsyn med næringsmidler m.v. med forskrifter, herunder generell forskrift av 8. juli 1983 nr. 1251 for produksjon og frambud m.v. av næringsmidler, forskrift av 15. desember 1994 nr. 1187 om internkontroll for å oppfylle næringsmiddeloggivningen og forskrift av 12. november 1997 nr. 1239 om næringsmiddelhygiene, gjelder for tilberedning og servering av næringsmidler. Måltidets sosiale funksjon bør ivaretas ved at det er fysisk tilrettelagt for spising og avsatt tilstrekkelig tid til at trivsel oppnås.

The school should offer the pupils:

- At least 20 minutes break for eating
- An adult should be present in grades 1-4, preferably also in higher grades
- Fruit and vegetables
- Fat reduced milk
- Bread or crisps bread
- Availability of cold drinking water
- A nice environment for eating
- Meals with maximum 3-4 hours interval
- Canteen or food stall in lower&upper sec. school

The school should NOT offer the pupils:

- Soft drinks and squash
- Chips, snacks and sweets
- Cakes, muffins and waffles daily

The school canteen should offer food based on:

- Varied and whole-grain bread types
- Fat reduced margarine
- Varied spreads
- Fruit – whole, sliced and used as spreads
- Vegetables - cut, used as spreads, for salad, cooked
- Fat reduced milk
- Juice and cold drinking water

Skolene bør tilby elevene:

- Minimum 20 minutter matpause
- Fullt tilsyn i matpausen i 1.–4. klasse, helst også på høyere klassetrinn
- Frukt og grønnsaker
- Lettmelk, ekstra lett lettmelk eller skummet melk
- Enkel brødmat
- Tilgang på kaldt drikkevann
- Et trivelig spisemiljø
- Måltider med maksimalt 3–4 timers mellomrom
- Kantine eller matbod på ungdomsskole og videregående skole

Skolene bør ikke tilby elevene:

- Brus og saft
- Potetgull, snacks og godteri
- Kaker, vafler og boller til daglig

Skolekantina bør ha et mattilbud basert på:

- Varierte og grove brødvarer
- Lettmargarin eller myk margarin
- Variert pålegg
- Frukt – hele, i stykker eller som pålegg og tilbehør
- Grønnsaker – skåret opp og lagt i vann, som pålegg, salat eller varmrett
- Skummet melk, ekstra lett lettmelk og lettmelk
- Juice og kaldt drikkevann

5.2 Guidelines for food serving and meals in day-care centres (kindergartens)

(”Retningslinjer for mat og måltider i barnehagen”)

By the Norwegian Directorate for health and social affairs (SHdir) (www.shdir.no)

MÅLTIDER

Barnehagen bør:

1. Legge til rette for minimum to faste, ernæringsmessig fullverdige måltider hver dag med medbrakt eller servert mat
2. Sette av god tid til hvert måltid, minimum 30 minutter til å spise, slik at barna får i seg tilstrekkelig med mat
3. Legge til rette for å kunne spise frokost for de barna som ikke har spist frokost hjemme
4. Ha maksimum 3 timer mellom hvert måltid. Noen barn, særlig de yngste, kan ha behov for å spise oftere
5. Legge til rette for at de voksne tar aktivt del i måltidet og spiser sammen med barna

6. Legge til rette for et godt fungerende og trivelig spisemiljø
7. Sørge for god hygiene før og under måltidene og ved oppbevaring og tilberedning av mat
8. Ivareta måltidenes pedagogiske funksjon

MAT OG DRIKKE

9. Maten bør varieres over tid og gi varierte smaksopplevelser
10. Måltidene bør settes sammen av mat fra følgende tre grupper:
 - Gruppe 1: Grovt brød, grove kornprodukter, poteter, ris, pasta etc.
 - Gruppe 2: Grønnsaker og frukt/bær
 - Gruppe 3: Fisk, annen sjømat, kjøtt, ost, egg, erter, bønner, linser etc.
11. Plantemargarin og olje bør velges framfor smør og smørblandede margarintyper
12. Drikke til måltidene bør være skummet melk, ekstra lettmelk eller lettmelk
13. Vann er tørstedrikk mellom måltidene, og bør også tilbys til måltidene
14. Mat og drikke med mye tilsatt sukker bør unngås
15. De fleste markeringer og feiringer bør gjennomføres uten servering av søt og fet mat og søt drikke

5.3 Certified enterprises processing/import, category serving outlet

Godkjente bedrifter foredling/import, kategori serveringssted

Angela Vassgård Kurs og Catering , Jotneveien 22, 1654 SELLEBAKK	Serveringssted
<ul style="list-style-type: none"> • Nedskjæring og pakking av økologisk kjøtt • Tilbud av økologiske matretter 	
Grønn Gourmet , Jaervn 111, 1451 NESODDTANGEN	Serveringssted
<ul style="list-style-type: none"> • Bruk av økologiske råvarer på kjøkken 	
Scandic Høvik , Drammensveien 507, 1363 HØVIK	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske produkter på frokostbord/buffet 	
Scandic Asker , Askerveien 61, 1386 ASKER	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske produkter på frokostbord/buffet 	
Clarion Hotel Royal Christiania , Biskop Gunnerusgt. 3, Po.Box 768, 0106 OSLO	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske matretter • Tilbud av økologiske produkter på frokostbord/buffet 	
Eurest Personal Restauranter AS , Postboks 8129 Dep., 0032 OSLO	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske matretter 	
Helios Grünerløkka AS , Storgata 53A, 0182 OSLO	Serveringssted
<ul style="list-style-type: none"> • Markedsføring av salgsprodukter i.h.t. liste • Tilbud av økologiske grønnsaker, poteter og frukt i løsvekt • Tilbud av økologiske matretter 	
Hotel KNA Scandic Crown , Postboks 2458, 0202 OSLO	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske produkter på frokostbord/buffet 	
Radisson SAS Plaza Hotel , Postboks 9206, 0134 OSLO	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske produkter på frokostbord/buffet 	
Scandic Hotel Sjølyst , Postboks 173 Skøyen, 0212 OSLO	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske produkter på frokostbord/buffet 	
Scandic St. Olav Edderkoppen , St. Olav plass 1, 0165 OSLO	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske produkter på frokostbord/buffet 	
Scandic Hamar , Vangsveien 121, 2318 HAMAR	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske produkter på frokostbord/buffet 	
Gållå A/S , 2646 GÅLLÅ, Url: www.gala-resort.com	Serveringssted
<ul style="list-style-type: none"> • Bruk av økologiske råvarer på kjøkken • Tilbud av økologiske matretter • Tilbud av økologiske produkter på frokostbord/buffet 	
Aasen & Wold Delikatesse , Storgaten 23, 3126 TØNSBERG	Serveringssted
<ul style="list-style-type: none"> • Bruk av økologiske råvarer på kjøkken 	
IKEA FORUS , Grenseveien 2, 4313 SANDNES	Serveringssted
<ul style="list-style-type: none"> • Prinsippgodkjenning for håndtering av økologiske produkter 	
Arkeologisk museum i Stavanger , Postboks 478, 4002 STAVANGER	Serveringssted
<ul style="list-style-type: none"> • Tilbud av økologiske matretter 	
Gosen skole , Sophus Buggesgate 13, 4041 HAFRSFJORD	Serveringssted
<ul style="list-style-type: none"> • Bruk av økologiske råvarer på kjøkken 	

ISS Norge , Postboks 59 Sentrum, 4001 STAVANGER	Serveringssted
• Bruk av økologiske råvarer på kjøkken	
Stavanger kommune Kantinen , Olav Kyrres gt. 23, 4005 STAVANGER	Serveringssted
• Bruk av økologiske råvarer på kjøkken	
• Tilbud av økologiske matretter	
Stim AS , Postboks 793, 4006 STAVANGER, Url: www.stim.as	Serveringssted
• Bruk av økologiske råvarer på kjøkken	
• Tilbud av økologiske matretter	
Pygmalion Økocafé og Galleri , Nedre Korskirkeallmenning 4, 5017 BERGEN	Serveringssted
• Bruk av økologiske råvarer på kjøkken	
Scandic Bergen Airport , Postboks 109, Kokstad, 5863 BERGEN	Serveringssted
• Tilbud av økologiske produkter på frokostbord/buffet	
Scandic Bergen City , Håkonsgt. 2, 5015 BERGEN	Serveringssted
• Tilbud av økologiske produkter på frokostbord/buffet	
Scandic Hotel Ålesund , Postboks 588, 6001 ÅLESUND	Serveringssted
• Tilbud av økologiske produkter på frokostbord/buffet	
Scandic Residence , Munkegt. 26, 7011 TRONDHEIM	Serveringssted
• Tilbud av økologiske produkter på frokostbord/buffet	
Scandic Solsiden , Beddingen 1, 7014 TRONDHEIM	Serveringssted
• Tilbud av økologiske produkter på frokostbord/buffet	
St. Olavs Driftsservice Mat og Café , Olav Kyrres gate 17, 7006 TRONDHEIM	Serveringssted
• Bruk av økologiske råvarer på kjøkken	
FLO Base Trøndelag RSF kjøkken Ørland , Postboks 500, 7129 BREKSTAD	Serveringssted
• Bruk av økologiske råvarer på kjøkken	
FLO Base Trøndelag RSF kjøkken Luftkrigsskolen , Værnes mil, postboks 403, 7501 STJØRDAL	Serveringssted
• Bruk av økologiske råvarer på kjøkken	
FLO Base Trøndelag RSF kjøkken Værnes , Værnes mil, postboks 403, 7501 STJØRDAL	Serveringssted
• Bruk av økologiske råvarer på kjøkken	
Scandic Tromsø , Postboks 2243, 9269 TROMSØ	Serveringssted
• Tilbud av økologiske produkter på frokostbord/buffet	

Antall bedrifter:
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5.4 Companies delivering conventional or organic fruit to schools in Norway

Company	Name	E-mail	Location
Bama Kristiansund	Thomas Heggem	robert.heggem@bama.no	
Bama Bergen	Eva Hordvik		
Bama Kongsvinger	Roger Jacobsen	roger.jacobsen@bama.no	
Bama Sverre Johnsen	Bente Vik	bente.vik@bama.no	
Bama Nord Bodø	Håvard Kringshaug	havard.kringhaug@bama.no	
Bama Hamar	Kine Strandsveen		
Bama Olav Aakre Tromsø	Dagfinn Voillstad	dagfinn.vollstad@bama.no	
Bama Stavanger	Åse Marie Tuntland		
Bama Sogn	Fredrik Bergstrøm	sogLager@bama.no	
Skovly, Østfold	Steinar Johnsen	steinar.johnsen@bama.no	
Skovly, Vestfold	Fredrik Smebøl		
Lundteigen, Gol	Otto Bratteng	bamagol@bama.no	
Bama Lillesand, Agder	Jostein Nordvik	jostein.nordvik@bama.no	
Bama Telemark	Kenneth Blikra		
Bama Ålesund	Gunvor Johnsen		
Lundteigen, Drammen	Tove Østlid	tove.ostlid@bama.no	
Bama, Augusta Arnesen, Oslo	Eirin Norhus		
Færgestad		faerg@frisurf.no	
Knudsmoen, Per Otto Pedersen	Per-Otto Pedersen	knudsmoen@bluezone.no	0580 Oslo
Norfresh (Grøntcentralen)		liv.hafskjold@grontcentralen.no	0580 Oslo

Euro Frukt	Marianne Jørgensen	mar-euro@online.no	0580 Oslo
Østfoldfrukt Mysen A/S	Lise Krugerud	firmapost@ostfoldfrukt.no	1859 Slitu
Fruktringen, Oslo	Morten Patricksson	morten@fruktringen.no	0580 Oslo
Odd Langdalen	Mette Løfblad	gunnar@langdalen.no	0580 Oslo
Magnussen	Iren Fjærestrand	trondma@online.no	2020 Skedsmokorset
Økol Direkt AS	Geir Ole Sætremyr	setremyr@online.no	6022 Ålesund
Håpet Økologisk, Tove Iren Skaar	Tove Iren Skaar	eple@eple.org	4016 Stavanger
Grønn Mat	Kai Arne Bie	hf@lillesand-produkter.no	Lillesand
Finstad Gård	Dagfin Nyen		3070 Sande i Vestfold
Kolonihagen Abonnement AS	Jorunn Moen		0572 Oslo
Safari Engros	Bjørn Hollevik		6901 Florø
Øko-kompaniet AS	Jarle Valderau		3070 Sande i Vestfold



The iPOPY project

The aim of the project “innovative Public Organic food Procurement for Youth - iPOPY” (<http://www.ipopy.coreportal.org/>) 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. The research project is a cooperation between Norway, Denmark, Finland and Italy. German researchers also participate, funded by the Research Council of Norway. iPOPY is one of totally eight projects that were funded through a joint call of the ERA net CORE Organic in November, 2006. More at www.coreorganic.org

Project manager: Anne-Kristin Løes, Bioforsk Organic Food and Farming Division, Norway

Project contributors:

Norway: Bioforsk Organic Food and Farming Division and SIFO, National Institute for Consumer Research;

Germany: University of Applied Sciences, Münster and Society, Technical University Berlin;

Denmark: DTU, Technical University and DTU, National Food Institute;

Finland: University of Helsinki, Ruralia Institute;

Italy: State University of Milano, Dep. of crop science and ProBER (Association of organic and biodynamic producers of the administrative region Emilia Romagna).

iPOPY Publications:

All publications can be downloaded from the website:

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