

Greening public canteens

Introducing organic and local food
in public settings

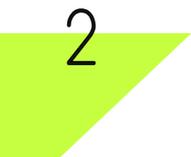


Organic Cooks in Public Settings - *Handbook*



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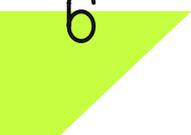
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Foreword

The European Union (EU) Erasmus+ Programme is designed to enable people, at any stage of their life, to participate in stimulating learning experiences, as well as developing education and training across Europe.

The European project “Organic Cooks in Public Settings” funded by the European Union (EU) Programme ERASMUS+ (September 2014 – August 2017) will approach this background with the aim of contributing to sustainable and healthy nutrition in public catering facilities through the development of new and innovative ways of teaching and learning about “organic cooking in public settings” and through advanced awareness about these topics. The project intends to achieve these objectives through the development of the curriculum for the complementary qualification of organic cooks in public settings. This will be based on ECVET-standards and the design of an interactive ICT-tool for sustainable cooking with organic and regional products in public kitchens providing knowledge and proposing actions for organic, seasonal and regional cooking. The handbook is the result of partner cooperation of projects across Europe with the aim of providing knowledge and good practice towards more sustainable public canteens. The partner consortium consists of 6 partners from 5 European countries.

The consortium covers a broader spectrum of partners active in different sectors: formal and informal education institutions: Thüringer Ökoherz e.V. (Germany) the project coordinator, University of South Bohemia – Faculty of Agriculture (Czech Republic), Vestjylland Folk High School (Denmark); non-profit organisations with great networking and dissemination potential on national and regional levels and educational activities in the informal sector - AIAB Liguria (Italy), Thuringian Consumer Advice Center – Network Unit for School Catering (Germany), Center of Environmental Activities (Slovakia).

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Canteen area - image elaborated by Stefano Melli

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01 Introduction

The **Organic Cooks in Public Settings** handbook is intended as a useful tool to illustrate methods and good practice in achieving sustainable public canteens through the introduction of organic, seasonal and regional foods. The handbook provides basic information on topics relating to organic canteens in public places as compared with conventional canteens and shows the added value of the former. It highlights issues relating to health, wellbeing and environmental, social and economic sustainability.

Building regional/local networks between suppliers of organic food products and public canteens is presented as a necessary condition for ensuring sustainability in public catering, regional agro-food systems and the local community.

One of the main objectives of the handbook is to convey how public canteens can lead the way to sustainability especially in the conversion of conventional public kitchens to organic ones.

The handbook suggests practical examples to overcoming barriers in the use of regional and seasonal organic food in public settings; it addresses the problems arising during the conversion process and proposes possible solutions.

The manual is intended to propose innovative solutions which are not yet common practice in all the consortium countries and where these solutions may yet sound unfamiliar and inapplicable. We suggest strategies that have already been successfully trialed in one or more of the countries involved.

The handbook also aims to inform about the project and its results as well as good practices, related projects and other useful sources/results/contacts to motivate and support the target groups in the conversion process.

The handbook serves as an important tool for raising awareness about the integration of organic cooking into public settings especially in those project countries where the status of organic and sustainable cooking is still in its infancy at almost all levels (public canteens management, policy and decision-making and consumer involvement).

Finally, the handbook can be used both as a basis for teaching activities and as a dissemination tool to inform relevant stakeholders and target groups such as chefs, kitchen managers, policy and decision-makers, teachers and educators, advisory associations and consumers.

The handbook contains direct links to the webpages and documents about the topics covered with a digital version available on "[Organic Cooks in Public Setting](#)" [social webpage](#).

1.1 Organic, seasonal and regional products: the way to improve food quality in sustainable canteens

Respect for human health and wellbeing and respect for territorial integrity and the environment are both the premises and goals of sustainable food production and consumption. Canteens are a particularly relevant place for implementing these values, as they are important as places of social gathering and also provide a great opportunity for food sustainability education and dissemination. In addition to offering pesticide-free and GMO (genetically modified organisms) -free food, organic canteens can provide valuable opportunities for sustaining local economies and the privileging of fresh and seasonal food from proximal suppliers (see, for example, SANPEI Project). In order for this to occur, actions should not be limited to the replacement of conventional foods with organic products, but also to improve or, in some cases, to start building the basis for the development

of strong relationships between canteens and their surrounding territory, suppliers and citizens. For this purpose, it is important to encourage the dissemination of good practice, such as organic food procurement projects for school catering services, hospitals and elderly-care facilities, the aggregation of municipalities for the procurement of local products, initiatives to raise awareness of organic food and nutrition aimed at both kitchen staff and users, and programs to integrate food education into school curricula.

Why organic?

- it opposes the use of chemicals such as pesticides, fertilizers, hormones and GMO products
- it protects soil fertility
- it avoids the overexploitation of natural resources and preserves biodiversity
- it encourages animal welfare
- it supports short supply chains, reducing environmental impacts (CO₂ emissions during transportation), creating strong connections between producers and consumers
- it adds value to diverse local products, territories, landscapes and communities

Organic agriculture is promoted and facilitated by the EU through a number of regulatory and financial instruments related to the European Common Agricultural Policy and the Rural Development Program. In the last ten years, these policies have led to an annual increase of half a million hectares of agricultural land for organic farming. Subsequently, we now have over 186,000 organic farms in Europe.

Sustainability in the catering sector should be considered a holistic concept that takes into account different aspects: food procurement, menu design and preparation, meal transport, distribution and consumption, waste management and reduction, paying attention not only to food and meal quality but also to the healthiness and pleasantness of the place where the meal is consumed. Given that education remains a key factor in improving service quality, all these aspects should be tackled by specific training and awareness-raising interventions aimed at all the different stakeholders: municipalities, catering service companies, consumers (e.g. children, parents), teachers, local health units, farmers.

Rome public tender for the quality of school catering service

Guidelines of the Public Tender for the quality of school catering service of Rome Municipality

Why did we do this?

The objective of Rome's approach is to support organic agriculture and organic food chains, ensure food safety and nutritional balance and encourage good environmental practice of current and potential suppliers, through its school meal service. Since 2001, Rome has employed an incremental approach to designing its food and catering tenders and its food service, in order to gradually make these more sustainable and innovative. A recent call for tender for a 5-year school food service has a base value of approximately €355 million. The overall themes and objectives were: guaranteed origin of food products; freshness and flavor of meals; variety of menu; a comfortable, healthy and functional environment, frequent and meticulous controls; nutrition education; reasonable costs.

What has been done?

The results of quality and sustainability achieved in school canteens in Rome were the result of a complex process that began in 2001 and continues today. Beginning in 2001, the school meals program reached its fifth round of tendering to support its ALL FOR QUALITY principles introduced and implemented year by year.

Furthermore, Rome's Council adopted a decision on GPP (Green Public Procurement) for food and canteens where more than 144,000 meals are served daily across 550 nurseries, primary and secondary schools. 92% of the meals are prepared on site with 69% including organic food. School mealtimes are a vital accompaniment during children's most important growth phase in which they develop behaviour patterns and lifestyles. They not only become more responsible for their own health, but acquire a social and environmental conscience.



A primary school canteen. Photo: Albert sas.



Food commodity experts office of the city of Rome, responsible for the collection and preparation of the Informational Magazine. Photo: Albert sas.

Characteristics of the service includes **guaranteed origin of food**: pasta, rice, bread, cheese, fruit and vegetables come from organic farming, while meat and sausages must be provided by companies subject to quality certification. Genetically modified products (GMO) are excluded. **Freshness and taste of meals**: meals are cooked in-situ, at school, on the same day, using a large range of recipes developed by City of Rome dieticians in order to make nutritious and tasty dishes. **Variety of menu**: this is calibrated according to the age of children and season (summer version from 01/04 to 31/10, winter from 1/11 to 31/03), offering students the nutrients they require. **Local comfortable healthy, functional**: increasing attention and resources are invested in the improvement of kitchens, storerooms and canteens. **Scrupulous and strict controls**: with respect to the companies that run the canteens, with a revocation of contracts for serious breaches (already applied in a number of cases). **Food education**: food enters a school's educational project. Knowing what children are eating and how meals have been prepared, food can stimulate student awareness of their health and bodies, teaching them to eat in a balanced way, thus helping to prevent disease.

Organic Cooks Best Practice from Italy

Lesson learned

In terms of monitoring, municipal dieticians carry out quality checks of food on a daily basis to ensure that the terms of the contract are continuously respected. An additional contract was drafted for monitoring in schools and has been awarded to two private laboratories which analyse approx. 15 samples of food and foodstuffs on a daily basis. An extension of this school food practice to other public canteens (e.g. in prisons, hospitals) in Rome is under consideration. The principles on which the latest contract is based will remain the same for future contracts.

The great variety of recipes allows changes to be made without creating supply problems. Special diets are provided for children who need them: 'light' diets for minor illness of a short duration that do not require a medical certificate; special diets for health reasons (sensitivities and/or allergies) for which a medical certificate is required from a Local Health Centre and which is presented to a municipal dietician who can process an ad hoc diet; vegetarian menus and those for specific religious needs for which it is sufficient to present a statement from the parents to the Town Hall Office. A snack is given at mid-morning with the aim of providing a proper caloric and nutritional structure. The snack composition is balanced such that a child does not have a sense of satiety when it is lunch time. During educational trips, children have a 'travel' or 'cold' basket, packaged up the same day in paper bags with individual handles. The food which is not consumed at table may be allocated to animal (such as cat and dog homes). Food not consumed by children and still intact is passed to non-profit organizations for the purpose of social solidarity.

Catering is provided by specialized companies which award two kinds of Public Tenders for the service:

- a race managed centrally by the Town Council. The city territory was divided into 11 lots, each of which had been assigned a company;
- races carried out directly by school leaders "in self-management".

In the 36 cases, the winning company operates the service in the schools which have held the race. In both cases, however, companies have had to meet the same quality standards required by the City of Rome. In the last race, the city of Rome invested 700 million EUR to subsidise the service of meals for the years 2007-2012 to 740 schools. Roman families pay less than half the average overall cost of meals and these contributions are reduced by 25% for low-income households. The poorest families are entitled to free meals.



Photo: Albert sas.

Target and stakeholders

The main target group is 144,000 children (girls and boys) in preschools and primary schools of the city of Rome. The service is, in fact, characterised by the high quality of meals which are 69% organic, tasty and balanced. It respects the environment, seasonality and nutritional needs of pupils. Stakeholders are principals, teachers, canteen managers and parents. In addition, the service is characterised by its high sustainability and high skill levels of employees in the sector.

Expected results: Clear contractual language provided by the Public Tender describes exactly what is required; Additional monitoring to ensure compliance of the service.

Replicability: The management of school canteens in Rome is very detailed and complex. The necessary process of transfer and adaptation could facilitate mutual enrichment towards the common goals of improved quality and service sustainability.

Needed resources: Employees of Roma Capitale, consultants and employees of the companies awarded the Public Tender.

Financial: the school food service covers seven years. The last tender has a base value of approximately €355 million.

[Link 1 to Municipality of Rome](#)

[Link 2 to Municipality of Rome](#)

1.2 Respecting differences, sharing best practice

The 'Rome' project is based on the premise that it is important to learn through experience, the exchange of knowledge and sharing of best practice. The opportunity for mutual learning is even more valuable in the context of food sustainability in public canteens, characterized by significant differences in procedures, regulations, traditions, etc. Project partners have had to recognize this variability as a source of enrichment which has further stimulated debate.

Though this handbook presents a thorough reflection upon the whole public catering system, special attention is given to school canteens because of their high educational value. Indeed, it is in school canteens that the European citizens and consumers of tomorrow are educated. There, they can increase their knowledge and awareness of food and become more aware about the importance of choosing the right food for their own as well as the planet's health and wellbeing. Furthermore, due to the young user age, public school catering deserves special attention in order to ensure that high quality and safety standards are achieved. For this reason, school catering can be taken as a model for all other types of public catering (hospitals, retirement homes, barracks, workplace canteens, etc.).

Although all 28 EU Countries have already implemented food policies for schools aimed at improving children's nutrition, reducing and preventing child obesity through the adoption of healthy diets and educational programs, the following main issues emerged in the framework of the partnership.

In **Germany**, the school system is moving towards full-time schooling and therefore there is an increasing demand for catering services in public schools, especially in kindergartens and schools in the western part of Germany. In the former eastern part of Germany, catering in kindergartens and school has a long tradition, since its establishment in 1945. During the last ten years many changes have been seen. There have been catering recommendations for all settings since 2007, with cities such as Berlin, Munich and Bremen beginning to emphasize the importance of organic food and/or sustainability and making it part of their public tenders.

In **Denmark**, the new governmental strategy is strongly oriented towards promoting organic meals and increasing the amount of cropland used in sustainable and organic agriculture.

In **Czech Republic**, the *School Food Plan* highlights the importance of physical activity and explicitly states that fats of animal origin should be reduced and substituted as much as possible by vegetable fats and oils.

In **Slovakia**, the *School Meals Act* has set standard rules for improving meal quality and teaching children healthy eating habits.

In **Italy**, school canteens offer a variety of menus throughout the year: two different seasonal menus, one for the autumn-winter and another for the spring-summer season, and menus running on a 4 or 5-week rotation system, so that the same dish is not offered more than once a month. According to the 2016 BioBank Report, 296 catering services (24% of the total) use 70% organic commodities in school kitchens. Municipalities mainly entrust canteen management to catering companies, which prepare, transport and distribute meals in compliance with the directives given by Regions and the Ministry of Health.

In conclusion, organic school meals can provide a valuable contribution to environmentally-friendly and healthy nutrition. They also represent an important educational moment for children as lunchtime gives them a great opportunity to learn sustainable consumption values, habits and behaviors, through conviviality and integration with their classmates and teachers.

02 Regulatory framework

2.1 EU regulations pertaining to public procurement of catering services

To support organic farmers and protect consumer rights, the EU has set up a framework over the last few years. In the EU, public procurement in the food sector represents approximately 19% of the GDP (Gross Domestic Product). With the adoption of three recent European Directives pertaining to public contracts (2014/23/EU, 2014/24/EU, 2014/25/EU), the regulatory framework for public procurement has come more in line with the aims of the 'Europe 2020 Strategy' for smart, sustainable and inclusive growth, whilst ensuring a more efficient use of public funds.

EU Member States have transposed such directives into national laws and today public procurement is a particularly valuable tool in orientating catering services towards high quality and sustainability standards.

The regulatory system gives a central role to Green Public Procurement (GPP) that is the choice of public administrations to purchase environmental friendly goods and services. This stipulates that the environmental sustainability of products and service providers becomes mandatory. This is achieved by applying a set of Minimum Environmental Criteria (MEC) to both internal supplies and those entrusted to external providers. The MEC provides general indicators to orientate administrations towards purchasing and consumption rationalization, giving a number of environmental suggestions associated with the various tender phases (objectives of the tender, technical specifications, top-score technical characteristics in the most economically advantageous offer type of tender, contract performance conditions). The GPP considers environmental added value through the entire product/service life cycle and supply chain. As of today, the European Commission has developed a set of GPP criteria for more than twenty categories of products and the value given by the EU to GPP is constantly on the increase.

In addition, the procurement of public catering services complies with EC Regulation n. 178/2002 on Food Safety and the EC Regulation n. 1169/2011 on the provision of food information to consumers.

Finally, it is worth mentioning the European initiatives 'Milk at school' and 'Fruit at School', developed in the framework of EU Regulation n. 1308/2013, aimed at both fostering sustainable agri-food development and encouraging the consumption of fruit, vegetables, milk and dairy products by schoolchildren. Fruit and vegetables and dairy represent two primary agricultural sectors, each covering approximately 15% of EU agricultural production value. EU countries are able to participate in these programs on a voluntary basis. The two programs were initially developed separately (Milk at school in 1968, Fruit at school in 2007), but are now joined in a single programme the 'EU-School-Program' that will come into force in 2017 with a further emphasis on food education.

In the following text we provide a series of guidelines on how to design a public tender for school catering service management. Most of the indicators are also valid for other catering services.

2.1.1 Public tender for school catering service: an example of procedural aspects

A public tender is needed when the catering service for schools or kindergartens is entrusted to

a private company. It contains all the features of the service desired by the public administration and all the details that regulate the contract.

Before launching a public tender it is important to know the total financial volume of the tender and in which way the cash flow is planned. The **financial volume of the tender** is calculated as the product of the approximate total number of pupils eating, the total number of days that the service is offered, the approximate price per portion and the duration of the contract. If there is more than one school for which the catering required, this has to be included. It is not of critical importance to know the exact number of children eating and exact costs per lunch portion. At this stage, an estimate will suffice.

Examples:

a) A school with about 150 children eating their lunch, 5 days a week during one school year. The contract is planned for 4 years.

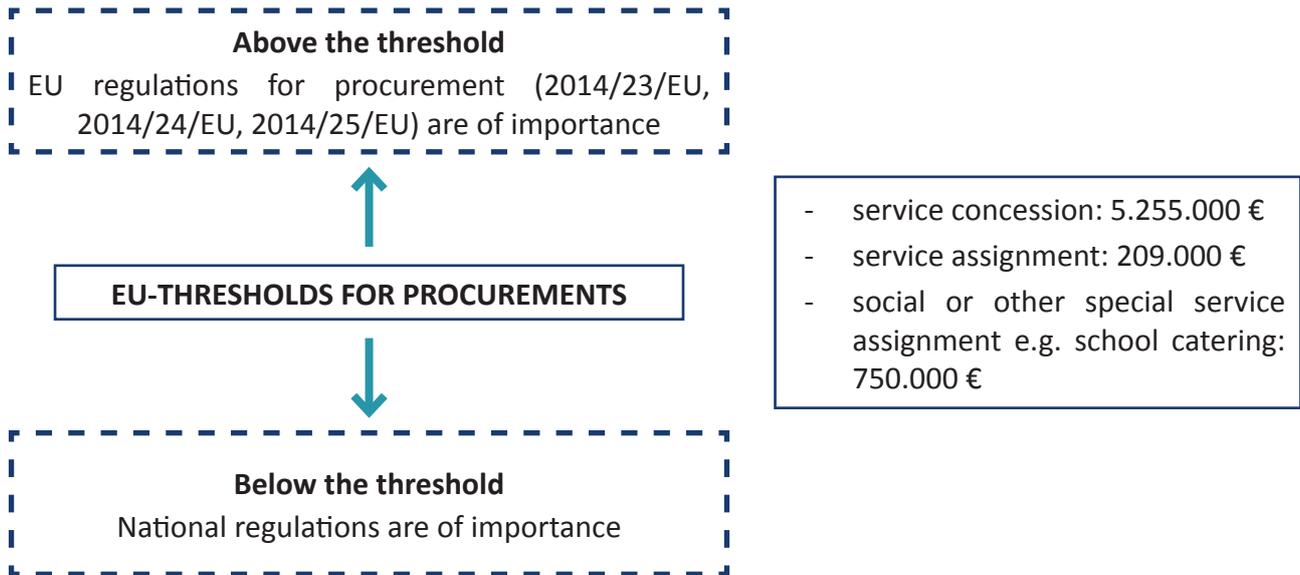
150 children * 215 days (in one school year) * 3,50 € per portion (valuation orientated to similar school catering prices) * 4 years = 451.500 €

b) A city with 30 schools with approximately 130 children eating lunch at each school, 5 days a week during one school year. The contract should only run for 2 years.

130 children * 30 schools * 215 days * 3,20 € per portion * 2 years = 5.366.400 €

The **cash flow**, i.e. who is paying whom for the service, is one important criterion in the decision to contract out a *service concession* or a *service assignment*. A tender for a service concession is expected when the parents have a private contract with the caterer and are paying the caterer directly. The caterer, on the other hand, has a contract with the municipality for using the school canteen to cook and/or to serve the meals. The catering company is probably paying rent or operating costs to the school municipality and it assumes the economic risks of the activity. In the case that the caterer is paid by the municipality for the cooked and served meals and the municipality receives the money from the parents, then it is expected to be a service assignment. In respect of the principle of free competition on open markets between European countries, the EU indicates the thresholds above which a service has to be advertised Europe-wide (not only nationally) and the regulations pertaining to public procurement for service concessions and assignments.

In respect of the principle of free competition on open markets between European countries, the EU indicates the thresholds above which a service has to be advertised Europe-wide (not only nationally) and the regulations pertaining to public procurement for service concessions and assignments.



Putting tender out for a service concession with an approximate volume of 5,3 million euro, as in example b), the administration has to advertise it Europe-wide, in accordance with European directives.

Launching a tender for a service assignment with an expected financial volume of 451.000 €, as in example a), the municipality does not have to advertise a Europe-wide tender. In this instance, the tender has to be in line with the national regulations of the country.

The best procedure for entrusting school catering services to third parties is an *open tender* with the **most economically advantageous offer** awarded. In this way, the selection considers both the quality and the price. It is recommended that a score be given to the most important points, such as price, quality and further technical betterments and improvements.

Indeed, selections made on only a lowest-price basis, force participating companies to rationalize costs to an extent that becomes detrimental to food quality and safety.

The open tender – formerly called public auction – ensures:

- highest company participation, promoting competitiveness;
- presence of highly-qualified companies, in view of the participation requirements (technical and economic capabilities) listed in the call for tenders.

It is important to identify a minimum price threshold or minimum bid price, after having calculated the meal cost, taking into account every component, profit for the contracting company and the minimum value of betterments and improvements. The minimum bid price must be **consistent** with all aspects described and required by the tender. Exceedingly low bid prices would either favour anomalous offers, thereby leading to unsatisfactory service management, or would lead to a lack of participants. An empty auction incurs a cost to public administration. The minimum bid price should be exactly calculated and be based either on scientific study or on the experience of other public administrations.

Example/Excursus: Outsourcing of services

School catering service provision can be either direct, meaning it is provided by local administrations employing their own staff, or outsourced, where it is provided by companies specializing in the sector and employing their own staff and resources.

The outsourced service provision model can be adopted for example, by public administrations

as they do not have kitchen-facilities and want only to serve the prepared meals to children by their own staff. The decision to outsource is often chosen after having evaluated the effectiveness, efficiency and economy of entrusting the service to a third private party. Partial outsourcing of the service is also a valid alternative that allows for outsourcing certain phases whilst others are retained by the administration. For example, the administration can retain an activity that requires a major control on the quality of the service such as meal production or food supply whilst delegating the others. And vice versa, the school can choose to outsource more expansive activities and employ its own staff in meal distribution and kitchen clean up.

In general terms, the best solution is to prepare a public tender for all outsourced phases, rather than proceeding through separate entrustments. Thus, the overall outsourced service will be economically more substantial and more 'desirable' for participating catering companies and the increased competition will allow for an increase in the number of markdowns. Furthermore, this will allow the implementation of an integrated quality management system, aimed at assessing not only the quality of single processes and suppliers but also environmental quality and corporate social responsibility in their entirety. In addition, there is only a single subject for the administration to deal with, which makes controls easier and provides the opportunity to verify that the appointed company has a sustainable, fair and transparent relationship with farmers, other suppliers and consumers.

2.1.2 Content and public tender performance

When the above factors are resolved it is important to write a precise description of the objectives and all performance outcomes of the service.

The **standard objectives** of a public tender for school catering service management are often as follows:

1. quality of menu and food safety standards, promoting the adoption of good food habits, especially focusing on balancing the different nutrients in order to prevent disease and obesity.
2. Outlining a model for sustainable food production and consumption in accordance with GPP (Green Public Procurement) and MEC (Minimal Environmental Criteria) indications
3. Facilitating the creation of a certified supply chain that leads to a high-quality final product (the meal eaten at school), by achieving multiple harmoniously integrated and well-implemented goals as well as a balance between quality and price.

As general good rule, service performance has to be precisely described in the tender. For example, it is not useful to state that the caterer has to cook a *healthy* meal consisting of a main dish, a side dish such soup or salad and a dessert. The word 'healthy' there has countless interpretations and it is probable that the school will not receive the lunches it expected to. It is better to specify that the caterer has to prepare the menu plan according to national guidelines and quality standards for school meals.

To bear in mind:

- describe services in as detailed manner as possible using national guidelines or recommendations if available.

The description should focus on the following main aspects:

- a short **description of the supply institution** and their **guiding principles (mission)**;
- food quality: rate of organic (preferably as a percentage or for category/type of product rather than in cash or quantity), fair trade and local products such as regional and traditional food specialties certified as protected designation of origin (PDO), protected geographical indication (PGI) and traditional specialties guaranteed (TSG), food freshness and seasonality, short supply chain foods, a maximum warm storage period, menu planning etc.
- **product traceability**: systems encompassing a fair and transparent relationship with farmers and other suppliers, such as labels, names of producer, supplier control, precise and detailed product lists and agreements that protect both kitchen management and suppliers
- **staff**: number of staff employed and qualifications, planned working hours, number of staff training hours that will be provided in addition to the mandatory training requirements of national labour contracts
- **structural betterments and canteen equipment and furniture**
- **implementation of** projects on food and environmental education
- **quality assessment** by beneficiaries and the catering company

Supply chain example

A significant example of a short supply chain is given by the Biopiacce company in Piacenza (Italy). Here, small producers are associated in a consortium to provide high-quality as well as economic service, whilst achieving the goal of protecting the mountain environment where the raw materials are produced. Biopiacce guarantees the supply of fresh, local and organic milk, fruit and vegetables, tomato pulp, bovine meat, Grana Padano cheese, honey, jam and bread and biscuits made with indigenous ancient flours. [Link](#)

2.1.3 Staff employed in the service

Professional service staff must be employed regularly in compliance with the national sector contract (which also specifies the necessary training for the catering staff). The tender should include a number of measurable indicators that allow to determine personnel number and total number of working hours in relation to the number of meals served and the activities carried out. Proper involvement and use of personnel contributes both to the quality of the service and to employment in the sector.

The professional figures to be employed in school canteens and their working hours may be determined according to two calculations:

- productivity index: the total number of working hours is determined as a function of the number of meals served, calculating the ratio working hour/meal number. Two separate productivity indexes should be calculated, one for the preparation phase (where cooks and cook helpers are employed) and another for the distribution and cleaning phases (where auxiliary staff is employed).
- workforce allocated to different time slots: the workforce for the different catering phases is to be allocated according to the number of daily meals served in the various time slots. Staff numbers and working hours are fixed and cannot be modified even if the consumers are not present. Workforce changes may only be allowed in the afternoon time slots.

The first solution gives a higher management autonomy to the catering company but makes it more difficult for the public administration to control the service and undermines staff protection. The second solution, on the other hand, reduces management autonomy since the catering company must strictly comply with staff prescriptions, but makes control easier for the public administration and promotes staff employment, since the minimum weekly working hours are fixed as per labor contracts. This may lead, however, to exceedingly high costs for the catering company.

The tender must also regulate a number of aspects that are mentioned in European and national rules, such as:

- staff training and updating (all courses should be monitored by the administration and relevant public officers should be allowed to attend them);
- staff clothing;
- staff safety and security;
- hygiene and health prescriptions.

The tender must clearly state the obligation for entrusted companies to comply with the rules on staff protection and to ensure that wages are not lower than those proscribed by labour contracts for a given staff category and service location.

Special attention should be given to the regulating the replacement of absent staff, which must be carried out in compliance with legal contracts so as to ensure a timely replacement with the same level of properly trained staff, thereby ensuring that quality standards are always maintained. Overtime can be foreseen only as an exceptional measure to be pursued in case of unscheduled absences and must be limited in order to ensure employment stability.

2.1.4 Food related aspects

Lunch contributes significantly to our daily intake of nutrients. It is therefore, recommended to describe lunch in as detailed a manner as possible, indicating the requirements for food choice and quality, preparation of meals, menu planning, nutrient intake, food allergies and diseases

With regard to both **food choice** and quality it is important to describe the foodstuff which should be linked to healthy and environmental aspects. As lunch typically consists of several components, the indications should be given for each component.

In order to prevent obesity, a daily offering of fresh fruit and vegetables (raw or cooked) is recommended. Less processed foodstuffs should be chosen. Fresh foods should be chosen over frozen and canned. Artificial flavors, sweeteners or alcohol must be avoided as well as the excess use of salt and sauces (mayonnaise, ketchup, etc.)

An obligation to source organically farmed products should be included in the tender. The importance of serving **organic products** is associated with higher food safety due to the absence of chemical residues, as well as to the promotion of environmentally friendly farming practices. The requirement to choose organic products derives from three specific needs, which are of the utmost importance for public administrations:

1. food safety: organic products have no pesticides or other chemical residues and are associated with lower toxicological risks
2. attention to the consumer: organic products are embedded within ethical and cultural values that are more important than the logic of profit
3. environmental protection: organic farming is regulated by rules that allow to manage croplands and farmed animals in ways that are more ethical and compatible with nature. Using entirely organic products may not be affordable either for economic or organizational/logistic reasons. For example, a local organic food may not be available in quantities that guarantee a continuous and certain supply required by school catering. Some organic products should be listed as compulsory by the administration (certainly fruit and vegetables) whereas others could be included as betterments by participating companies, as stated in the tender and rewarded in the selection process.

During the process of tender drafting, the public administration should carry out a market survey and gather information from relevant operators in order to verify that the provision of organic products is not too difficult or even impossible in the area. The survey should be particularly accurate with respect to the organic products listed as compulsory in the tender and should involve producer associations in order to promote virtuous production and consumption circuits at a local level.

As for betterment, the tender should include the use of products associated with an **entirely organic supply chain**. Such products are farmed, processed and commercialized by companies that operate *only* in the organic sector, so that the risk of secondary contamination (from conventional products) is reduced. This would also better fulfill the requirements of those who choose organic products for ethical and environmental reasons.

The decision to choose a dedicated organic supply chain allows for two objectives to be achieved:

- more guarantees as to the absence of secondary pollutants compared to foodstuffs supplied by companies handling both organic and conventional products
- an opportunity for the growth of small and medium sized enterprises that prioritize cultural and environmental values. Otherwise, these can rarely compete with big agro-food industries that have an organic production line.

2.1.5 Suggestions for a greener catering service from the example of the Rome tender

With the increasing desire of schools to understand the provenance of food and the need to obtain food from the local area, it is important to indicate the need for regional and proximal products in the tender. Since **regionality** and proximity are not an objective quality criteria and the requirement could be interpreted as exclusion of suppliers from beyond the local area (thus violating the principle of free competition), this topic needs to be addressed in various ways. One possibility is asking for **PDO** and **PGI foods**, because they are actually linked with quality criteria, as privileged and certified by the EU. With regard to meat, it is possible to choose ancient, indigenous and slow-growing animal breeds as well as recipes that promote the use of all available meat cuts, thereby reducing purchase costs. The supply of meat from local farms can also be privileged for ethical reasons as it reduces the distance between farms and slaughterhouses that are as close as possible to the kitchens and thus promote animal welfare.

Another possibility is to privilege local foods to guarantee the freshness and seasonality of the products: this is possible not only with fruit and vegetables, but also with fish products (see the example of the SANPEI project) as well as bread and bakery products.

After all, it is possible to ask for regional quality labels if they are based on objective testing criteria and transparent certification processes.

In addition, the following points may be included in the tender:

1. a maximum time lapse between collection and consumption could be fixed for **highly perishable fruit and vegetables** (salad, strawberries, etc.) in order to ensure the maintenance of organoleptic and nutritional properties as well as to favour the consumption of **local products**. A minimum threshold for score allocation should however be determined. The time gap between product collection and consumption should be reasonable and not favour offers that promise a time lapse of less than 2-3 days between collection and consumption.
2. For fish products, the scientific name of a species should be indicated together with its common commercial name, in order to avoid the use of low-quality products. Fish-based processed products should not be included in menus (sticks, hearts, etc.)
3. Diverse seasonal fruit and vegetables should be offered whenever possible, even if menus are often based on a few same fruit and vegetables, such as tomato, salad and zucchini for 365 days a year.
4. Fresh products should always be preferred to frozen or canned ones, with the only exception being fish, special-diet foods and certain types of vegetables (peas, green beans, spinach).
5. For some food types, such as meat and fish, reassembled dishes such as sausages, ham and salami should be limited.
6. A regulatory framework for the preparation and distribution of special-diet food should be included in all relevant cases (disease and religion-related diets, vegetarian diets, low-calories diets, post-festivity diets); with regard to disease-related diets (for e.g. with allergies), special menus should be as similar as possible to standard menus in order to avoid marked differences among consumers and to maintain a balanced caloric meal content. In addition, a specific menu should be designed for emergencies and a cold 'packed meal' should be foreseen for students going on school trips.
7. When preparing commodity sheets, it is important to choose high-quality food and take into account the entire supply chain associated with a product, its shelf-life and all regulations pertaining to hygiene and organoleptic aspects.

In addition, the selection of foodstuffs, preparation and the subsequent period during which food is kept warm, have a significant influence on the nutritional and sensory quality of meals. For example, the warm-keeping period must be as short as possible: a maximum of three hours in order to reduce the loss of vitamins and sensory properties. That 3-hour period begins with the placing of meal components in thermally insulated containers and ends with their serving to the last consumer.

With regard to **meal preparation**, it is therefore important to design menus low in fat, rich in nutrients and with lower sugar and salt. Instead of salt, fresh or frozen herbs can be used for seasoning.

Dishes should be simple and well-balanced throughout the meal, from first to second course to side dish, nutritionally balanced but also appealing to children, thereby consumption can be increased and food waste can be reduced.

It is recommended to take into account nutritional quality, variety and seasonality of food when

menu planning. There should be at least two different sets of menus: one for the spring-summer season and another for the autumn-winter season. It is also possible to define a set of four menus (one for each season).

It is advisable to have a training session on food seasonality in the case of school canteens or catering in order to educate both adults (catering staff, teachers and parents) and children and to bring children closer to an understanding of biological cycles. All sets of menus should be administered on a 4-week (or more) rotational basis, so that the variety of dishes is as diversified as much as possible and less popular recipes can be changed without overtly impacting the organization of food supply. It is also important to ensure long-time product availability so that menus can always be prepared according to plans.

Menus must be nutritionally balanced according to the national nutrient and energy intake recommendations for each age group (e.g. in case of school meals, 6-year olds eat less than 10-year olds, therefore two different portion weights can be introduced to primary school, one for the first and another for the second cycle). This should be done by a dietician and be, if possible, already included in the tender. Therefore, special attention can be given to portion weight in order to prevent obesity or food waste. A nutrient optimized lunch should provide roughly 25% of daily recommended nutrient and energy intake.

The importance of school breakfast

- *An important innovation that the tender should include is the administration of mid-morning snacks by the catering company. This aspect is relevant in the framework of good and balanced nutrition – formulated in accordance with the correct daily caloric intake – and it is an important element in the fight against child obesity and/or food insecurity (too many children do not eat breakfast at home for reasons of poverty, lack of time or poor eating habits). See the ‘Breakfast After the Bell’ nutrition programs recently developed in the USA and the UK reports on food poverty in rich countries for details of food insecurity.*
- *Children often eat high-caloric industrial snack mid-morning and this not only increases overweight tendencies but can also cause digestive problems, thereby affecting attention in class as well as a lack of appetite at lunchtime.*
- *The snack must not provide more than 8% of the total daily caloric intake of a child and the following items should be preferred:*
- *- fresh fruit, fruit juices or pre-packaged fresh fruit (since these are highly perishable products, refrigerators should be available to ensure that the cold chain is maintained)*
- *- bakery products*
- *- other snacks in accordance with the dietary guidelines adopted by each EU member countries.*

2.1.6 Service operating procedures

The tender must regulate all operating procedures of the various phases of the catering service:

- conservation and storage of foodstuffs
- preparation and cooking technologies
- meal booking
- meal distribution on site
- meal transportation to the refectory

- operations to be carried out before and during meal distribution
- cleaning and disinfection operations
- waste management

2.1.7 Social and environmental impacts

To reach full sustainability goals, the tender may include elements pertaining to social and environmental issues. In particular, it should foresee the use of **fair trade products** and promote the use of products whose supply chain includes employees from 'disadvantaged' categories (for example, from social agriculture). Furthermore, special attention should be paid to the reallocation of intact and non-consumed foods to charities.

Food waste should instead be collected by associations dealing with animal shelters (although some municipalities or local health centres prohibit this kind of redistribution).

In order to promote environmental protection initiatives, public administrations should include a number of elements that allow for the implementation of environmentally and compatible operating procedures in school catering tenders. Among all possible interventions, the following are deemed particularly relevant:

- plastics reduction in school canteens, with the use of ceramic dishes, stainless steel cutlery and glasses or by using disposable dishes, cutlery and glasses that are biodegradable, recyclable and compostable
- implementation energy and water consumption reduction measures by the use of low-energy light bulbs, low-consuming kitchen appliances and devices, and where feasible, the use of solar panels for clean energy production
- promotion of soundproofing interventions for the reduction of acoustic pollution in school canteens and improvement of canteen and kitchen livability through a reorganization of spaces, furniture and kitchen appliances
- implementation of differentiated waste management;
- implementation of multi-portioned packaging and reusable or recyclable packaging materials;
- prevention of food waste.

2.1.8 Monitoring and control

It is important to define rights of control and kitchen inspection by the public administration as well as penalties. In general, the public administration should be free to monitor services at any time, without previous notification and in a form deemed most appropriate. Entrusted companies must therefore allow access to controllers at any time and during whatever activity pertaining to the service. However, monitoring and control should not interfere with the implementation of the various working phases.

Furthermore, companies should draw up their inspection plan, as well as all related records and assessment results (HACCP - Hazard-Analysis and Critical Control Points, GHP - Good hygiene practices) available to the administration.

The administration should carry out three types of control: visual, analytical and documental checks.

Visual and documental checks are carried out on:

- food (quantity, storage, expiry dates, labels, conformity to tender prescriptions, etc.)
- staff (number, qualification, level, working hours, clothing, hygiene, etc.)
- operating procedures (food processing, cooking, manipulation and distribution, clearing out and cleaning up, cleaning and disinfection procedures and products, transportation, waste management, etc.)
- premises, facilities and equipment (functioning, hygienic conditions, correct use, maintenance, etc.).
- supply chain and traceability (including commitment towards suppliers, producers and especially farmers as per indications given in the offer; suppliers can be replaced only in justified cases and only after authorization by the contracting authority).

Analytical checks are carried out through food and environmental sampling (surface and utensil swabbing, air samples, etc.) and subsequent laboratory analysis.

The public administration should foresee a penalty enforcement system in case of non-compliance found during control activities.

Therefore, a procedure that includes the following points should be outlined:

- infringement report to the entrusted company
- formulation of counter-measures, within a given deadline, by the entrusted company
- penalty application if counter-measures are not taken or if they are not acceptable
- Nonconformities can be graded into different categories according to their severity in terms of consumer health risks and proportioned penalties could be foreseen. The administration should also be free to reconsider contracts when penalties reach a maximum threshold. The penalty system should, however, aim at prevention rather than punishment in order to ensure the maintenance of quality standards. The system should therefore also aim to incentivize companies which operate in the correct manner.

Systems which evaluate customer satisfaction (i.e. surveys, questionnaires, talks) are also recommended.

2.1.9 Food education

The tender should include, as a compulsory requirement or as a betterment, food education activities to be carried out by competent staff and organizations. Educational programmes should be aimed at improving basic nutritional knowledge, food properties and characteristics for a responsible and sustainable diet, good food habits and behaviors. Programmes should be subdivided into different topics and educational approaches, involving all consumers (e.g. children, families and teachers). In this regard, it is worth reiterating the importance of lunchtime as an educational opportunity especially for children and youth.

Organic cities network

Bio Stadt Netzwerk

Why did we do this?

For various reasons organic farming and organic food production is one of the most sustainable economic sectors in Germany. Therefore, several cities, such as Munich, Nuremberg, Bremen, Heidelberg, Darmstadt and Hamburg wished to facilitate this and began working together in 2010. Thus, the focus is on the exchange of experiences, collective projects and public events.

In February 2016 the network “organic cities” was officially founded. The principal objectives of this network are:

- promotion of organic farming and connected local added values
- preference for organic products in public institutions (e.g. kindergartens, schools) and events
- encouraging bio-branch networking within economic promotion
- requesting a public subsidies policy to focus on the organic sector and possible cooperating projects to link up agricultural and economic policy matters to municipal matters.
- addressing consumers, canteens and catering companies within e.g. public events

What has been done?

Various events and projects have taken place within the cities themselves or in conjunction with one or more cities. The announcement of organic tenders by public procurement, “Bio out of the region”, “Processing and marketing of ancient cereals and fruits” or “Bio for kids” with a menu planning tool. Others initiatives included an exhibition, a shopping-guide with organic producers and educational projects for schools.



Photo: Netzwerk deutscher Biostädte



Photo: Netzwerk deutscher Biostädte

Lesson learned

One of the lessons learned is, that networking is fundamental. Furthermore, it is important to have political decisions with targets and to adapt administrative procedures for tenders, to pass regulatory actions and to involve different municipality departments. It is beneficial to educate those involved such as cooks and canteen heads and to support them individually if necessary.

Target and stakeholders

Currently these are 12 cities involved. Each city cooperates in a network of several organisations, initiatives and associations; agriculture, gastronomy, education or trading. Interested cities, communities or counties are welcome to join the network. This cooperation is based on a cooperation agreement.

Expected results

Gaining helpful experiences and advice from collective projects and events. A guideline “Strategies and concepts for the successful introduction of organic food in Municipality canteens” was published in February 2017.

Resources needed

Special attention needs to be paid to improving motivation, involvement and willingness for sustainable agriculture and nutrition. It is beneficial, of course, to have personnel resources and a political agreement.

Links: www.biostaedte.de

03 On the road to organic canteen conversion and certification

3.1 What is organic?

Organic agriculture is a production system that encompasses the entire agricultural ecosystem and aims to respect and conserve all natural resources (soil, water, biodiversity), as well as productive capacity, over time. It exploits the soil's natural fertility, enhancing it with only limited interventions and specific agronomic practices, such as crop rotation, consociation and use of natural fertilizers. It adds value to agricultural and farming diversity through the use of local breeds and varieties. It shuns the use of pesticides, GMO, hormones and antibiotics in animal farms. Pest control is carried out using natural strategies, such as the introduction of predatory insects.

3.2 EU legislation



In Europe, organic agriculture began to spread in the 1970's but it was only in the 1990's that it began to be regulated at the Community level. The first regulation on organic agriculture (Council Regulation EEC n. 2092/91) was adopted in 1991. In 1999, Regulation (EC) n. 1804/99 introduced the first set of rules for organic livestock production. In 2007, the Council Regulation (EC) n. 834/2007 'on organic production and labeling of organic products and repealing Regulation (EEC) n.

2092/91' was adopted. This new regulation took into account both vegetal and animal organic products (including aquaculture), but a specific regulation on aquaculture products was issued in 2009 (Regulation (EC) n. 710/2009).

In addition to the regulatory system, the European Union has put in place a strict control and certification system aimed at ensuring consumer protection while promoting organic producers. Organic products are identified by a green leaf logo, where the leaf is made of 12 stars on a green background.

Control, certification and labeling are applied to the production, processing and distribution phases of all organic products.

3.3 What happens to the public plate?

Despite the increasing number of organic products used in public and private catering, as well as so-called 'organic canteens', there are no specific Community rules for the organic certification of catering services.

In Italy, for example, a national law (Law n. 488/1999, art. 59, paragraph 4) promotes the use of organic, regional, traditional and PDO/PGI products in public schools and hospital canteens. Several Italian Regions have issued laws and regulations with the same aim of promoting organic products. As a result, organic canteens have become more and more common over the years: from 2011 to 2015 there has been a 12% increase in organic canteens in Italy (Bio Bank Report, 2016, p. 34). However, a common definition of organic canteen is still lacking (the variety of organic products that are offered and the frequency of organic meals varies significantly among canteens;

the Bio Bank survey regards as organic even those canteens where only one dish or food item, for instance fruit, is organic, *ibid.*): as of today, there are neither official regulatory frameworks nor dedicated certification systems.

In Germany the organic cultivation law (Öko-Landbaugesetz) states that all catering companies whether serving meals in companionship or at a restaurant are subject to control and a certification system when they promote and sell organic meals, meals with organic components and organic ingredients. In such cases, they must be certified. Exceptions include institutions such as kindergartens or schools that cook in-situ and do not have other visitors such as children and teachers, or when packaged foods are sold at kiosks.

Whilst awaiting a remedial intervention by the European Union, which is both necessary and urgent, some European countries have outlined a series of interesting and creative systems to promote and certify catering services that are moving towards sustainability.

Below we describe three best practices pertaining to the certification of sustainable catering.

3.4 Food For Life Catering Mark

Food for Life, UK – www.foodforlife.org.uk



This initiative began in 2003 and developed into an award-winning national programme to transform food culture thanks to funding from the UK Big Lottery Fund.

Food for Life programme is about making good food the easy choice for everyone – making healthy, tasty and sustainable meals the norm for all to enjoy, reconnecting people with where their food comes from, teaching them how it is grown and cooked and championing the importance of well-sourced

ingredients.

The programme works with schools, nurseries, hospitals, care homes, and their surrounding communities, helping them to build knowledge and skills through an evidence-based, ‘whole setting approach’. This engages children and parents, staff, patients and visitors, caterers, carers and the wider community to create a powerful voice for long-term change. The programme is about more than just food on the plate; it considers where food comes from and how it is grown, cooked and experienced. It provides practical advice and support and rewards and celebrates success. The Early Years Award provides an independent endorsement for nurseries and children’s centres that serve good quality, nutritious food and supports the babies and children in their care in developing good eating habits for life. The School Award supports schools to, grow their own food; organise trips to farms; source food from local producers; set up school farmers’ markets; hold community food events; provide cooking and growing clubs for pupils and their families; serve freshly prepared, well-sourced meals and provide an attractive dining environment so lunchtimes are a positive feature of the school day. The Hospital Leaders team works to promote health and sustainability as well as improving the food experience of patients, staff and visitors.

The [Soil Association “Food for Life Catering Mark” \(link\)](#) provides an independent endorsement that food providers are taking steps to improve the food they serve, using **fresh ingredients** which are **free from trans-fats** and **harmful additives** and **better for animal welfare**. Caterers are audited to ensure high standards of provenance and traceability, providing reassurance to customers that meals are freshly prepared using environmentally-sustainable and seasonal ingredients. They are also asked to demonstrate their compliance with relevant national standards or guidelines on food

and nutrition. Caterers accredited by Catering Mark are subject to an annual inspection, including on-site visits.

The Catering Mark directly ties up with the Food Quality section of the School Award. Handbooks for schools, kindergartens, hospitals, workplaces, cafés and restaurants, residential care, and universities are available on the website. Food for Life is a Soil Association programme. The Soil Association is the UK's leading membership charity campaigning for healthy, humane and sustainable food, farming and land use, and the UK's largest organic certification body.

Source:

- foodforlife.org.uk (accessed on 22/9/2016)
- Food for life, 2015, *Food for Life making Britain Healthier through Food. What we can do for you*, pamphlet published by Food for life
- Jones, M., Donnelly, A., Pitt, H., Oxford, L., Orme J., Gray, S., Salmon, D., Means, R., Weitkamp, E., Kimberlee, R. and Powell, J., 2016, "Capturing the value of sustainable food procurement through Social Return on Investment analysis: Lessons from the Soil Association's Food for Life programme", in: *Public Food Procurement Policies: Local and Organic Food in Public Catering Systems Workshop Papers*, 12th European IFSA Symposium, 12th – 15th July 2016, Harper Adams University, UK [[Link](#)] (accessed on 22/9/2016)

3.5 Casa Clima School certification protocol



Casa Clima Agency is an independent certification body that has become one of the European leaders in energy labeling. It has developed a whole range of quality certifications which are calibrated on the specificities and requirements of different areas of application. Since 2015, the new Casa Clima School certification protocol has been implemented with the aim to ensure **wellbeing in school settings**. A high number of studies suggest that student performance is significantly affected by environmental factors (up to 40%). For this reason and with an holistic approach, the *Casa Clima School* protocol takes into account a variety of criteria that must be met besides energy efficiency: choice of eco-compatible building material, comfortable inner spaces which maximize the use of natural light, respect of high hygienic standards, air quality using controlled mechanical ventilation if necessary, and eco-conscious waste management. This standard, therefore, allows to design a sustainable, comfortable and healthy school environment for teachers and students, that can also facilitate and support learning. Furthermore, in *Casa Clima Schools* the new generations learn virtuous behaviours by experiencing water and electric energy saving and differentiated waste management, but above all they experience living in a healthy and comfortable school environment.

Source: [link](#)

3.6 The Danish Organic Food Label for kitchens



In Denmark, public sector kitchens share around 40% of the total sales of organic products to the food service (Mikkelsen and Lundø, 2016). The Danish Veterinary and Food Administration, part of the Ministry of Food,

Agriculture and Fisheries, advises public canteens and kitchens on how to provide organic meals. Since 2009, they have also developed an organic food label. Three variants of the label (gold, silver and bronze) exist depending on the percentage of organic food in the specific canteen: 30-60% organic foods and beverages of total purchase qualifies for 'bronze', 60-90% for 'silver' and 90-100% for 'gold'. In the first five years after its introduction, there was an increase in the public purchasing of organic foodstuffs of 33%. The number of kitchens with the organic food label increased by more than 50% from 2014 to 2015 (*Ibid*).

By raising awareness, knowledge and trust in ecology in general, among consumers and kitchens, the mission has been to increase the demand for organic food in the workplace, institutions, schools, restaurants, etc. The Organic Food Label is a consumer-oriented documentation of the organic conversion: the certification assures that a valid measurement of the overall organic conversion process has been made through the registration of users of the label.

The certification process is voluntary and free for the kitchen.

A lot of kitchens have the bronze certification as a first step when beginning their organic conversion process. If the kitchen has to keep to its existing budget, the label will be obtainable by converting a part of the conventional goods into organic, buying seasonally, adjusting menus and reducing food waste. In order to achieve the silver label keeping the budget constant, the kitchen must have a systematic focus on food waste, making more food from scratch, different and completely new menus and a greater focus on using cheaper, seasonal goods. Achieving a gold label without an increase in budget demands creativity – especially when it comes to meat, which should be reduced or completely replaced. Almost everything should be made from scratch, food waste should be eliminated and an ongoing readjustment of the menu must take place. Furthermore, it might be necessary to ferment or pickle the fruit and vegetables of the season.

A food policy has to be made when an eatery has a gold label. The food policy contains a backup plan which describes how the kitchen should operate in the rare instances when certain organic food or beverages cannot be supplied. The food policy should be visible to the visitors at the eatery.

Today, 1.800 kitchens, both private and public, mainly schools, are certified with this system.

The Organic Food Label contributes to increase the visibility of choosing organic food by kitchens and it makes this choice more transparent for the consumers.

The label has supported the conversion to organic of Danish agriculture, the growth in the wholesaler's sale of organic food and it seems to be a catalyst for a general demand in organic foodstuff.

Source:

www.oekologisk-spisemaerke.dk (accessed on 22/9/2016) Mikkelsen, E. B. and Lundø, M., 2016, "Monitoring progress in Public Organic Procurement Policy (POPP's) implementation - an important tool in organic food and farming policies?", in: *Challenges for the New Rurality in a Changing World 7th International Conference on Localized Agri-food Systems*, Södertörn University, Stockholm, 8-10 May 2016 [[Link](#)](accessed on 22/9/2016).

Experiential school developing a mix of good practices

Reaching the Gold Organic Food Label

Why did we do this?

Sustainable lifestyle has always been a great aspiration of the Vestjyllands Folk High school in Denmark. Their wind turbine and solar- and geothermal system supplies the school with CO2 neutral energy. One important element of the school's green profile is an ambition to ensure organic and sustainable nutrition. This has been the motivation behind the best practices implemented in the operation of the school kitchen over time.

What has been done?

The kitchen leaders at the school established several procedures and practices in the kitchen, which enables them to serve organic meals whilst prioritising local and seasonal food and keeping within a budget.

Examples of best practices:

Purchasing from 100% organic wholesaler: *simpler and less time-consuming, a wider range of organic goods, delivery from only one wholesaler.*

Purchasing (and using) the whole animal from local farmer → *supports the goal of sustainability, total cost is lower.*

Avoiding the use of dairy (in bread, soups etc.) when possible → *saves time, lower cost, no "special food" for lactose intolerant, vegans etc.*

Not using finished or semi-finished food products *lower cost, better quality/freshness of food, respect for the products.*

Replacing meat with plant proteins → *lower cost – this practice is one of the main reasons why the 90-100% organic is possible.*

Minimizing food waste by reusing leftovers → *lower cost, sustainability.*

On-going communication with local farmers → *lower cost, following specific local seasonality, fresh goods, sustainability, secure future supply.*



Left over roast beef used in the buffet in a vegetable salad. the next day. Photo: Vestjyllands Højskole



*Presentation of meal from kitchen leader
Photo: Vestjyllands Højskole*

Lesson learned

It is essential that both the kitchen staff and school administration are engaged and passionate about the efforts that must be made to reach a high level of organic and sustainable food delivery. With a passionate kitchen staff willing to work quickly and some degree of cost-free/voluntary help in the kitchen (students etc.), it has been possible to keep the budget at the same level - even in Denmark, which has some of the highest wages in EU. Furthermore, the kitchen needs the support of the people eating its food. Sharing the history and provenance of the food, seasonality, time and effort spent etc. creates respect for the food and helps prevent unnecessary food waste.

Target and stakeholders

School administration, kitchen staff, users of the canteen (students at the school, staff members, various course participants etc.) and local food producers.

Expected results

By implementing best practices, Vestjyllands Folk High School has achieved an average monthly organic portion of 90-100% for its meals, which has qualified the kitchen for the gold Organic Food Label. This has been a long process with kitchen routines developed over time and based on experience and knowledge.

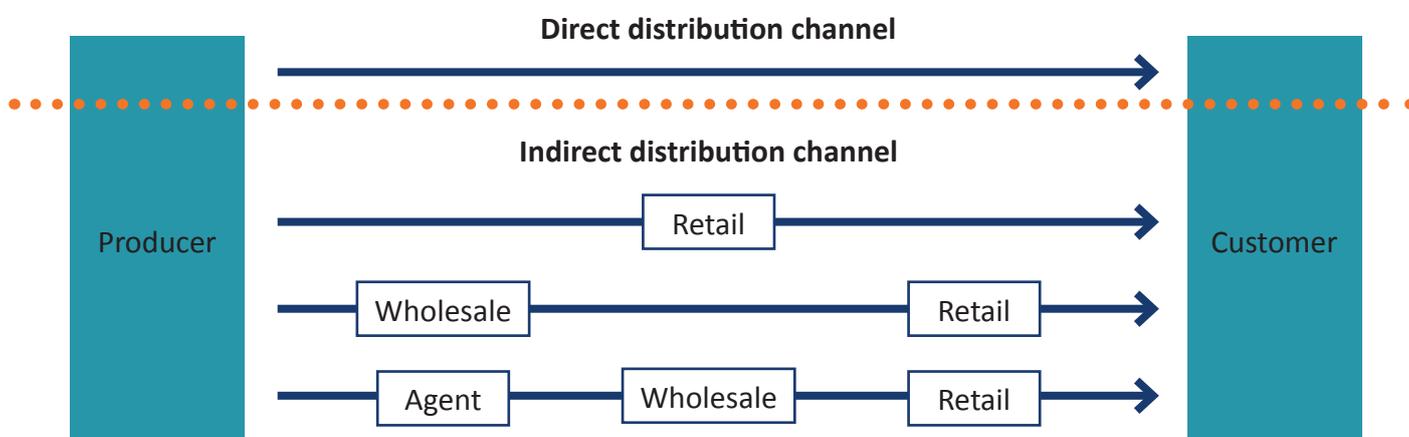
Links: <http://www.vestjyllandshojskole.dk/>

04 How to organise the supply chain

4.1 How to involve local and organic farmers and processors: the distribution channels of regional foods

The building of a well-functioning distribution system is neither easy nor inexpensive and may take several years to implement. At the beginning of the entire process, there is the company's decision of whether to use a direct distribution channel, meaning direct supplies of products from the production company to the customer or an indirect channel, meaning the use of intermediate links, i.e. intermediaries and agents (vendors). The distribution channels to be used should be chosen to suit the customers as best possible.

Distribution channels



Comparison of direct and indirect distribution channels

Direct distribution	Indirect distribution
• Time-consuming	• Less time-consuming
• Selling instead of producing	• Lower costs
• Lower risk	• Higher market risk
• Success largely depends on you, your abilities and capacities	• Your success depends on the success of your vendor
• Charge a higher price	• Lower remuneration
• Create a direct relationship with customers	• Indirect relationship with customers
• Tell your story better	

Source: Ministry of Agriculture of the Czech Republic, 2008, *Marketing místní produkce biopotravin (Marketing of the Local Production of Organic Foods)*

4.2 Indirect distribution channels

Distribution intermediate links are intermediaries, agents, sales representatives and auxiliary intermediates. They purchase and resell goods. They are independent entities, such as companies that provide comprehensive wholesale services and entities that provide specific services, e.g. wholesale stores and mail-order wholesalers. Agents and sales representatives are members of the distribution channel that may perform work for both the producer and purchaser and their task is to search out contacts and facilitate the goods exchange process. As remuneration, they receive a commission based on the selling price. Auxiliary intermediate links (carriers, banks) provide services and facilitate goods exchange. These intermediate links help to increase the efficiency of the distribution process and, in many cases, they make it possible to save costs and time.

Advantages of indirect distribution channels:

- The producer leaves some things to the distribution intermediate links
- Utilization of the experience, specialization and contacts of the distribution intermediate links in the contact with customers
- The wholesale offers a wide range of products as part of a single supply to canteens

Disadvantages of indirect distribution channels:

- Loss of the producer's control over the goods
- Problems in obtaining information about the end consumers
- Necessity of periodic motivation of the distribution intermediate links
- Dependency of the producer on the marketing strategy of the intermediate links
- Risk of not receiving the payments
- Increased costs of the distribution channels

In the Czech Republic, intermediate sale prevails. More than 70% of foods are sold through supermarkets and hypermarkets, a further 20% of foods are sold in specialized shops and approximately 4% of foods are sold in independent food stores. Other sales, e.g. through the Internet, constitute 1% of sales. Direct sale at farms constitutes only 5% of the market volume. Interconnection of hypermarkets with minor producers of organic foods in the region is very limited. This is one of the causes of the relatively high prices of organic foods, low availability of fresh organic foods and a narrowed market supply in general.

Source: Global Agricultural Information Network

4.3 Direct distribution channels

Local food networks emphasise sustainable food production, processing, distribution and consumption which are integrated to enhance the economy, ecology and health of a place and to contribute to a lessening in global warming. They constitute an alternative business model to the global corporate model, carriers and retailers. For consumers, it is increasingly important to purchase foods of traceable local origin. Consumers want to have control over their consumption and to feel that they have checked the quality and method of production of the purchased goods themselves. Another factor is the higher quality of local, seasonal fruit and vegetables. In the

course of the year, foods are harvested and sold in their optimal condition, ripe and full-flavoured. They do not have to ripen, chemically treated, in warehouses. A significant motivator for the buying of local foods is the regional development and support of local farmers, processors and producers. The method of production, carriage and storage are important parts in the mosaic of the ecological footprint of the particular foods. If processed with respect for the environment, landscape and farmed animals, a local product will also have a reduced environmental burden. If one of the main motivations for the increased use of regional foods is increased environmental improvement, then this positive environmental impact is further multiplied when using regional organic foods.

Where a direct distribution channel is used, the producer sells the products or goods to the consumer. The main advantage of direct sales is that the farmer does not share the receipts with producers, carriers and vendors and can obtain the whole price margin for him or herself. Disadvantages include a great increase in the volume of work and other costs associated with the processing, packing, carriage to the customer and sale. Some forms of direct sale (pick-your-owns, weekly markets, etc.) are less suitable for school canteens. Based on the local conditions, more or less usable options are e.g. shopping in daily marketplaces, using mail-order services (organic food crates), online stores and purchasing directly from farms.

Advantages of direct distribution channels:

- Direct contact with consumers
- Efficient feedback between producer and consumer
- Lower costs due to the absence of intermediary links

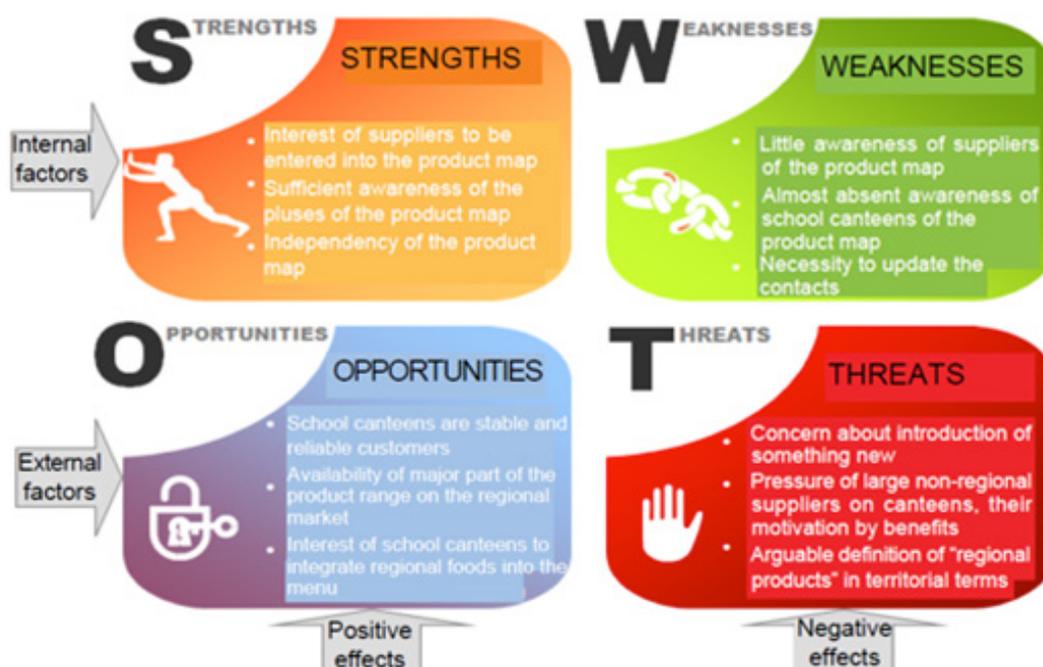
Disadvantages of direct distribution channels:

- Necessity to establish a large number of contacts with partners
- Awkward presentation of the products
- Removal of direct supplies of goods of mass or broad use and those provided to customers located a long way from each other

Product and canteen map of the South Bohemian Region, Czech Republic

The web portal <http://www.produktova-mapa.cz/> is a tool for heads of school canteens to easily search for available organic and seasonal foods from their local surroundings. The goal is to support the inclusion of regional foods in school canteens. The product and canteen map is an interactive map of regional suppliers and school canteens that serves for creating mutually beneficial relationships and is available on the website www.produktova-mapa.cz. The project facilitates the improvement of sales of fresh and seasonal South Bohemian foods and agricultural products in public catering, particularly in school canteens.

SWOT Analysis Product and canteen maps



Source: <http://www.produktova-mapa.cz/>

From the analysis of the SWOT matrix of the Product and canteen map, it emerges that this is a suitable tool for shortening the distribution channels between the producers and the school canteens in the region. The strengths and opportunities have already exceeded the weaknesses and threats.

Creation and further extension of networks between the canteens and the stakeholders is an important goal for the long-term guarantee of sustainable menus.

Bio-schools

Bioškoly

Why did we do this?

The main barriers to the use of organic foods in schools is their poor availability and a lack of information about suppliers and options within the current organic food market. Therefore, this project emphasises the creation of a **distribution chain to provide schools with access to the organic foods available on the domestic market and on facilitating the procurement of organic products.**

What has been done?

As part of the project, information materials were distributed among organic farmers and producers of organic foods. School management, founders and parents received the handbook 'How to introduce organic foods into schools'. There were workshops and round tables for organic farmers and schools and cookery lessons for school canteen cooks which included information about storage, processing and cooking organic foods as well as information about lesser known organic foods available on the Czech market. **The project helps to bring schools and parents on one side, closer to organic farmers and producers on the other.**

Organic farm tours and school organic food markets facilitated meetings of organic farmers with children and parents. The project was concluded with a conference about school meals that was aimed at addressing further parties interested in the inclusion of organic foods into school canteens. As of project completion (30 November 2011), 39 suppliers and 36 schools and separate school canteens located in Prague and 3 rural regions have participated in the project.



Accompanied by parents and teachers at the organic food market
Photo: University of South Bohemia



Vegetable preparation by our own hand
Photo: University of South Bohemia

Lesson learned

The project aims to support school canteens in the practical introduction of organic foods into their menus. The main target groups were children, their parents and school representatives (headmasters, teaching staff, heads of school canteens and cooks) and also workers of educational and other regional authority departments and other institutions, representatives of NGOs and organic farmers and producers.

Expected results

Schools greatly appreciated the educational aspect of the project. The reliability of suppliers was not an issue. Some schools located in remote regions however, encountered problems with deliveries whilst some schools find the system of ordering products inflexible.

Replicability

Within 5 years of completion of the "Bioschools" project, there have been 6 similar, quite large projects supported by national and EU resources in various regions of the Czech Republic.

Needed resources

In the future, schools will need greater institutional support from the Ministry of Education, Youth and Sports, reduction of food prices and further subsidies.

Links: www.bioskoly.cz.

05 Price management

5.1 Guidelines to keep prices affordable. The price of an organic and regional meal. Price breakdown

The price of a canteen meal is affected by many items of spending that can be grouped into two main categories: direct costs and indirect costs.

Direct costs are linked directly to meal processing and preparation and include foodstuff purchase, food preparation labor, consumption for cleaning, cooking and delivering, etc.

Indirect costs are related to planning and implementation of the catering service and include, among other things, the cost of personnel employed by the catering service (managers and clerks, dietitians, nutritionists, etc.), costs of training, communication and food education, equipment purchase and amortization, occupancy and space maintenance costs, etc.

To simplify, a schematic diagram shows the catering supply chain with its main phases:

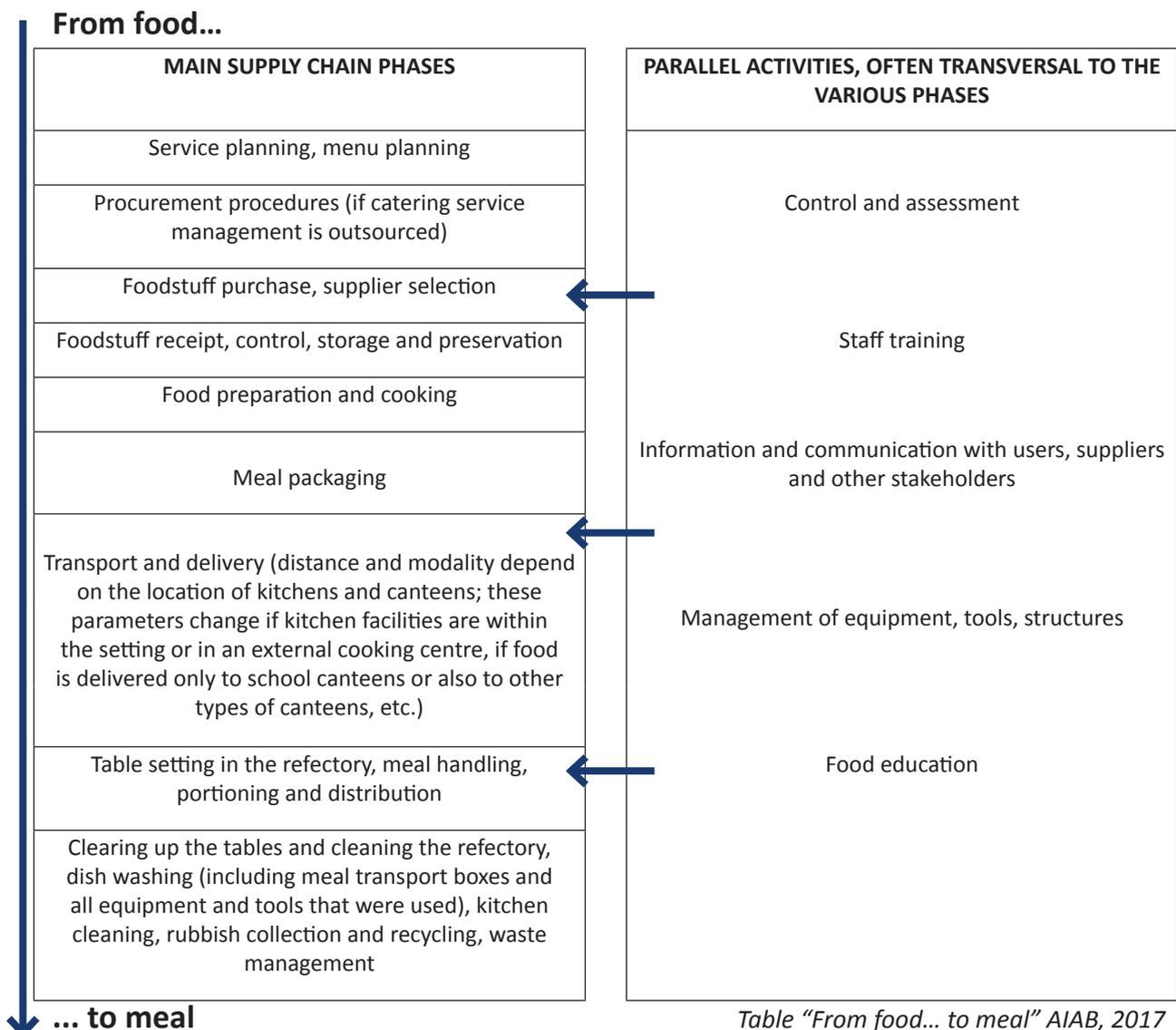


Table "From food... to meal" AIAB, 2017

Each phase of the supply chain generates costs that affect the final price of a meal. This price can either be paid in full by public administrations (e.g. in some European countries all pupils receive free school meals, whereas in others only the poorest receive free school meals) or shared with families.

In Italy, for example, the price of a school meal ranges from an average 4.60 – 5.00 € (estimated amount calculated on the basis of procurements awarded in the towns of Rome, Genoa, Brescia, Jesi, Guidonia, Montecelio). It can be estimated that 38% of the total price is represented by foodstuff costs, another 38% is represented by staff costs, 8% by general costs (company's insurance and management costs), 2% by quality certifications, 4% by health and safety expenditure, 4% by amortization costs and the remaining 6% represents income before taxes.

The average price for a meal in Germany is 2,83€ in primary schools and 3,05€ in secondary schools. Sometimes meals are subsidized by an average of 0,58 €. Depending on the catering system and the number of guests, the rates for foodstuff (40-50%), staff costs (35-45%), general and management costs (10%) and investment costs (5%) differ. Often the profit is calculated around 8%.

In this handbook the focus is on items of spending that are related in particular to the choice of fresh, organic and local products, and generally on the selection of sustainable and eco-friendly services.

It is important to mention that choosing higher quality products (fresh, organic, PDO and PGI or local) is at present more expensive in strictly economic terms.

In Italy, for instance, organic products are still significantly more expensive than corresponding conventional products. The following data are recorded at consumption: +8.0% for soft wheat (shortbread), +68.5% for hard wheat (pasta), +93.6% for apples, +53.1% for tomatoes, +18.8% for fresh milk. Even if it is not relevant for catering services, for the sake of completeness we mention that the percentage differentials are even higher for prices at source (+52.4% for soft wheat, +79.0% for hard wheat, +102.8% for apples, +139.9% for tomatoes, +42.5% for fresh milk). Source: Sinab, 2015, [[Link](#)] (accessed on 1/9/2016).

In Germany, organic products (on average above all product groups and in comparable segments/brands) are about 70% more expensive than conventional products. The price differences are smaller in the segments for tea/coffee/cacao (40% higher) and dairy products, as well as eggs with about 46%. Fruit juices and fish were almost double the price.

Reference: *Haubach C, Held B: Warenkorbbasierter Preis- und Umweltwirkungsvergleich von ökologischem und konventionellem Konsum, Pforzheim, 2015.*

These price differences are attributable to a number of reasons, including higher system costs, supply and demand dynamics that are still typical of a niche market (even though in constant expansion) and additional costs such as certification costs, etc.

Certified local products are also characterized by higher prices, at least at consumption, due to the additional value given by PDO-PGI labels.

Finally, even if fresh products are cheaper than the corresponding frozen foods at the time of purchase, their management entails higher costs, due to the time and effort required for storage and preparation (consider frozen spinach or fish and how much easier they are to consume!).

Unfortunately, at present, meal price calculation does not include non-monetary costs, known as positive or negative externalities of products and processes: environmental impact, biodiversity valorization, support to small local farming communities, conservation of cultural traditions, benefits in terms of health and psychophysical wellbeing, educational value of consuming high-quality food.

If all these aspects were included/internalized in meal price calculation, choosing fresh, organic and local products would be undoubtedly more convenient even in economic terms, but time is not yet ripe for this.

Therefore, being aware that including fresh, organic and local products in school meals entails higher costs for the public administration, we suggest a number of tips and feasible solutions to reduce catering costs.

For example, some organically farmed fruit varieties can be eaten without peeling after washing (apples, peaches, plums, etc.), thus saving on the cost of peeling by kitchen staff.

Simple things such as the use of ceramic plates, shatterproof glasses and steel cutlery instead of disposable items and drinking tap water instead of bottled mineral water can make school meals more sustainable whilst decreasing costs.

In the case of school-catering (and if the competent health body authorises it), meals can be distributed in each classroom rather than in the school canteen. Food consumption thus becomes a more relaxed and enjoyable experience, common spaces are less crowded and noisy, the family dimension of each class group promotes social relations and learning around the table and pupils feel more involved in activities such as table setting, clearing up and cleaning at the end of the meal, so that catering service costs can be reduced.

The value of cooking in house

- *Where feasible, on-site kitchens allow to reduce the time-lapse between meal preparation and consumption and therefore improve organoleptic food characteristics. In catering systems characterized by external cooking centres and conveyed meals, food preparation, cooking, meal delivery and consumption take place in different times and places. The food is prepared and cooked in large cooking centres, and then finished meals are delivered to each refectory for distribution and consumption.*
- *This type of organization is known as deferred bond. The time lapse between meal preparation in the cooking centre and meal consumption in the refectory can be significant (up to two hours). Once prepared, the food is stored at temperatures above 65 °C until the moment it is served, in order to avoid microbial growth. This operation is known as hot bond. Of course, this treatment affects food texture and flavour. To put it simply, despite the best precautions taken by cooks, the longer the time lapse between preparation and consumption, the worse the organoleptic properties of the food will become. In addition, avoiding the transport phase can help to save the related additional costs.*

Examples of efficient price management

- *optimization of kitchen management:*
 - *avoiding slacks*
 - *better structured working processes can release working time that can be used for price comparisons or price proceedings*
 - *cost control, for example systemising bills*
 - *maintaining a good ratio between effort of preparation and available and time and staff capacities*
- *change in menu planning*
 - *less meat and smaller meat portions*
 - *seasonally orientated recipes, a simple structured menu plan orientated to the seasons (e.g. some basic recipes with different vegetables)*
 - *less readily available and convenient products demonstrate when it is economical or chronologically sensible that they be used with regard to quality*
 - *avoiding food waste while cooking, preparation based on recipes and documentation of meals/ components liked by consumers*
 - *use of the whole foodstuff (e.g. vegetable peels can be used for cooking stock)*
- *optimization of the food supply*
 - *if possible, negotiating discounts, looking for regular orders, ordering food in bulk, especially those with a long shelf-life such as pasta, flour, sugar, etc.*
 - *making price comparisons*
 - *using the possibility of special offers especially when goods can be stored*
 - *identifying direct distribution channels*

Source: [www. biospeiseplan.de](http://www.biospeiseplan.de)

Organic for Kids

Bio für Kinder

Why did we do this?

In 2006 the pilot project “Bio for Kids” was started together with the organisation “Tollwood” and the Department of Health and Environment in Munich. The aim was to support Munich’s kindergartens and schools with a transition to 100% organic food, and thus to prove that healthy organic food is not only desired and feasible but also affordable.

What has been done?

From a large number of applicants, 32 institutions were selected for the project. Those selected participated in training, individual coaching and committed themselves to convert to 100% organic food with a detailed tracking and verification of costs by a recognized ‘eco-inspection authority.

For this, the project initiators guaranteed the acquisition of additional costs for organic food – to fill the “funding gap” between former conventional and future organic catering within the pilot period of two years. 30 Munich companies embraced the idea and absorbed the costs as patrons of the project. Since the start of the project, about 660,000 meals with 100% organic quality have been served in “Bio for Kids” facilities. Following the pilot period, the average ‘extra cost’ of organic meals was approx. 30 cents per main dish, i.e. 16,5% more compared to conventional meals. Hence, costs were significantly below those expected. Encouragingly, all 32 facilities have managed to maintain their level of organic catering following the end of financial support. Thus, the project showed, that organic catering is financially practicable.



Photo: b.l. Michael Herdlein; t.r. www.birgithart.de



Photo: Verbraucherzentrale Thüringen

Lesson learned

There were 2 reasons for the success of the project; the personal commitment of institutions and Munich City Council’s passing of a resolution in spring 2013 to increase the use of organic products in all municipal child-care facilities to 50 %. Sea fish must be labelled with a recognized label of sustainability (e.g. MSC), eggs must originate from organic production, as well as 90% of all meat products. “Bio for kids” was also actively involved in the drafting of relevant quality criteria. The crucial point in any nationwide switch to organic, besides practical support for facilities, is a beneficial political setting and supportive decision-making.

Target and stakeholders

Thirty-two different institutions took part in the project: all student ages, from nursery to vocational schools, were represented. Sponsorship ranged from the municipality to charities to private sector and the selected facilities represented both wealthy and more socially disadvantaged neighbourhoods, with or without kitchens in-situ.

Links:

www.bio-fuer-kinder.de

www.biospeiseplan.de

06 Meal management

6.1 Time devoted to meals and the social environment. How to avoid food wastage

Roughly one third of the food produced for human consumption, approximately 1.3 billion tons, is lost or wasted annually¹. Every time food is wasted, the energy, water, manpower, time, fuel, land, packaging and money put into growing, storing, preparing, transporting and cooking the food is wasted. The economic, social, environmental and ethical arguments for avoiding food waste are obvious. Getting started on minimising food waste can seem difficult and unmanageable and time and resource consuming, especially when a kitchen has previously not given the matter much thought. But every small change to save waste benefits the bigger picture: all it takes is a change in thinking. This is a conversion process the gain of which, makes it possible to improve quality in other areas. Avoiding food waste is a sustainable and effective way of saving money and creating budgets for further sustainable investments.

Here, a number of practical tips and methods for achievably avoiding food waste in public canteens are proposed.

- In canteens where food is served in buffets, a simple thing as replacing existing plates with smaller ones can lead to a very large reduction in waste of prepared food. For canteens which serve meals in portions, reducing the general portion size or offering a choice between sizes can also support food waste reduction.
- Creating simple recipes with not too many different components .
- Having a clear overview of ways to reuse the most common kitchen leftovers makes the process very simple and it will quickly become a routine procedure in meal planning. For example, leftovers of rice can be used for a variety of different vegetarian dishes. Some other suggestions here below:



Photo: Vestjylland FolkHigschool

Bread → Croutons, minced meat dishes (soaked), breadcrumbs
 Cheese → Gratin, salads
 Meat → Soup, gratin
 Vegetable soup → Bread, sauces, stew
 Non vegetarian soup → Sauces, stew
 Potato and vegetables → Soup
 Porridge → Bread
 Fruit → Fruit salad, smoothies, desserts

- If the kitchen happens to purchase too many vegetables, these can be frozen and retain their durability. Cooked vegetables can be cooled down and frozen as well.
- Another way of utilizing leftovers is to introduce a food ticket system that gives staff the possibility of purchasing kitchens leftovers to bring home for dinner. Tickets should be reasonably priced.
- Establishing well-functioning purchasing routines: waiting as long as is practically feasible when ordering all fresh greens, fresh meat and other products with a short durability. This practice ensures the best quality and minimizes the risk of fresh food products going bad. Planning the menu so that the fresh products are included in a variety of dishes.

1 Fao, *Key facts on food loss and waste you should know!*, [WWW] <http://www.fao.org/save-food/resources/keyfindings/en/> (accessed on 12/12/2016)

- The kitchen should also be critical in analysing if any food products are regularly left on plates or in the buffet. This can be a valuable tool in assessing which dishes or food products are not popular among canteen-users. These foods should either be altered or simply left out of future menus. It is also advisable to establish a feedback system for users who can contribute to menu planning and/or the optimisation of recipes.

To bear in mind

For canteen users

The involvement of canteen-users is important for the success of any strategy for reducing food waste. An example could be the use of signs on table, printed paper napkins or other possible means for informing of the environmental benefits of reduced food waste and ways to make a difference: for example, by not taking more on their plates than they know they can eat. This should be done at a level suitable for the target, e.g. using pictograms for young school children.

Communicating the results of the joint efforts to reduce food waste or rewarding users in a creative way when certain milestone are reached are other useful tools.

Engaging kitchen staff

In order to succeed in reducing the food waste of a large kitchen, it is essential that all staff members have the knowledge and motivation to participate in the process. The effort of kitchen staff has to be simple, repeatable and practical and must be perceived as meaningful and effective. One of the greatest motivators for staff is when they see their efforts yielding results. Set up clear and common goals and incorporate good routines for registration of food waste.

6.2 Menu design and presentation

The process of converting a conventional public kitchen to a more organic and sustainable one and serving meals at an affordable price, demands a revision of menu planning.

A simple approach to this demand is the introduction of one or two vegetarian meals per week, which immediately reduces the higher cost of organic meat and other animal products. Whilst exchanging meat/sausage and maybe fish with vegetable-based meals, emphasis has to be placed on the protein component of the resulting meal. Sound, protein-rich, plant-based alternatives such as pulses; beans, peas and lentils can be used. Choosing meat substitutes is also a step towards the reduction of animal protein consumption which benefits consumer health whilst supporting animal ethics.



Photo: Vestjylland FolkHigshool

With the introduction of vegetarian meals, menu composition and a proper combining of different elements must be taken into careful consideration to ensure well-balanced and nutritious meals. In the process of converting to greener and more organic eating, the eating behaviors of canteen-users must also undergo a transition. Users will be presented with foods that are different from those they are accustomed to; sometimes unfamiliar in both taste, smell and appearance. In

order for this transition period to be successful for both the kitchen staff and the canteen users, creating appreciation of the new food style is essential. We suggest that kitchens take advantage of all the additional colours that will be added to meals when using more fresh, organic, seasonal and unprocessed products.

Some good ideas

Include edible flowers and colorful fruits in the garnish to create attractive presentations.

Consider the season for the colour design of meals: during spring and summertime it is pleasant to have meals looking fresh, green and gentle whereas during winter and autumn intense, warm colors such as bold green, purple, orange or red can be used.



Photo: Verbraucherzentrale Thüringen



Photo: Vestjylland FolkHogskool



Another effective method of creating respect and appreciation for organic food is through meal presentation: a verbal description of the meal that is being served. The presentation could contain a short narration of the process behind the meal, from the fields of the local organic farmer to the serving trays, the effort of the kitchen staff put in to the planning and processing of the meal. Emphasizing the seasonality of the selected vegetables and fruits in the meal and the reasoning behind the particular chosen elements should also be included in the presentation.

Furthermore, stressing the importance to canteen-users putting only on their plates as much as they can eat is highly recommended as a useful contribution in the prevention of food waste.

Some good ideas

Just as in restaurants, where the restaurant manager and sometimes even the chef talk to customers at their tables in order to present the dishes, understand their tastes, address their choices, explain food origin and recipe preparation, so in public canteens one could find suitable ways and situations to bring consumers and catering staff together. This relationship, which has almost disappeared from public canteens, would give both parties a sense of responsibility whilst making mealtime a more enjoyable and valuable time for learning.

The process of running an affordable organic and sustainable kitchen can seem time consuming, especially when managing only partially organic kitchens, with alternative diets in addition to regular menus. The size of the challenge and workload of managing organic foods and meals depends upon the degree of change. It is necessary to establish a strategy in the kitchen, to ensure

food-quality, maintaining reasonable prices and keeping the extra time spent on planning and preparation at a manageable level.

6.3 Maintaining organic quality

A great deal of time and effort has been put into the conservation of particular nutritional qualities in the production of organic food products, with special regard to the health of soil, plants, animals and the consumer. Food preparation should respect this and try to maintain these organic qualities. An organic label on a food product does not necessarily mean that it is a high quality product – although it will always be preferable to conventionally grown and sourced food. Ecology is multifaceted. If a kitchen wants quality, quality has to be chosen and made a priority. Quality in terms of nutritional value is variable within a range of substitutional organic products.



Photo: Vestjylland FolkHigschool

An example of this is flour. An organic stone-ground flour can be of better nutritional quality and value than organic, industrially-ground flour. Stone-ground flour differs from industrially-ground flour in a variety of ways. Grains are milled gently using the stone-ground method, being ground slowly between two stones. Stone-ground milling is done in a cool and gentle way that retains all vitamins and nutrients of the cereal. Industrially-ground flour is ground using high speed rollers that heat the grains. In this process, important minerals, fats, fibers and vitamins are taken away. This means a great loss in the proteins, fats, vitamins and mineral constituents present in the original cereal.

Another example is oil, a central element in a kitchen. There is a great deal of opinion on which kinds of oil to use, but one thing is universally accepted: cold-pressed oil has a higher unsaturated fat content and is therefore always preferable in terms of quality and nutritional value out of organic oil as possible. Extra virgin olive oil, a typical element of the Mediterranean diet (a Unesco World Cultural Heritage entry since 2010), is always preferable to any other oil as in order to retain the qualities sealed in the oil, it is important not to heat it above a certain temperature. At increased temperatures, the polyunsaturated components will oxidize and form potentially harmful substances. For this reason, frying is a cooking practice generally avoided in public canteens.

Generally, cooking an organic meal does not differ greatly from cooking a meal based on conventional food products. Cooking with respect for a product's natural properties and achieving the highest nutritional value from fresh ingredients, should always be a priority. However, there are some instances in which cooking methods are essential in keeping the nutritional value and organic quality of the food.

Poultry is one of the cases where the cooking technique makes a great difference to the outcome of the meal. There is a big difference between roasting an organic chicken and roasting a conventional chicken. They should be managed very differently. An organic chicken (or other poultry) should always be cooked at low temperature for a long period of time. This ensures a tender and delicious

chicken, full of flavor.



Photo: Vestjylland FolkHighschool

If a conventional chicken - that has been given antibiotic growth promoters - is cooked the same way, it will turn out with very poor quality in terms of taste and consistency.

The conventional chicken needs to be cooked at a very high temperature for a short period of time. In general, cooking meat at low temperatures is seen as best practice. With regard to a kitchen's

procurement of organic products, the following practices are relevant for retaining quality:

- purchasing products, when possible, from an *all-organic* wholesaler. This makes the purchasing process much easier and less time-consuming and, at the same time, offers a wide range of organic food products.
- one way of ensuring the highest quality fresh and seasonal fruit and vegetables is by maintaining an ongoing communication with the local organic farmers supplying the kitchen. This helps to synchronise potential menus with the local agricultural products ready for harvesting. It supports the goal of sustainability by following the seasons in the local area and minimises transport. Furthermore, it shows a commitment and loyalty to local organic farmers, which helps to secure future supply.
- establishing well-functioning purchasing routines which include waiting as long as possible when using fresh products with a short durability.



Photo: Verbraucherzentrale Thüringen

Education of Cooks and Waiters for 21st Century

Partnership of the Hotel Academy Stara Tura with Agropenzion Adam

Why did we do this?

Company TBS Podkylava has been running a successful agro-tourism centre in picturesque Podkylava since 1996. In addition to the Charolais eco-farm and the agro-tourism facility Hotel Adam, the company has its own Hotel Academy. The goal is to educate cooks, waiters and other staff at the family-run hotel. Students here receive a tailor-made education with a focus on foreign languages and considerable training and work experience at the agro-tourism centre. They not only gain competitive advantage in a 'green-oriented' market, but become ambassadors of organic farming and organic food in later jobs in the HO-RE-CA sector.

What has been done?

- Students have regular practical training at Hotel Adam and in addition they are able to work at the hotel during seasonal events, gaining experience in the preparation of traditional local meals.
- Students have first-hand experience of organic meat and other products from local farms which helps to familiarise them with the sensory properties and culinary specifics of organic food.
- Organic farming and Eco Agro Tourism are included in the Hotel Academy's curriculum which makes the school a pioneer in sustainable, rural education in Slovakia.
- During cookery classes, students use organic ingredients and learn about their environmental and health benefits.



*Photos: Students of Hotel Academy at pension ADAM
Centrum environmentálnych aktivít*



Photos: Students of Hotel Academy at pension Centrum environmentálnych aktivít - ADAM

Lesson learned

The connection of education and business in the field of agro-tourism is inspirational and an example of the vision and ambition of TBS Company leaders

Target and stakeholders

The main targets are students and teachers of the private Hotel Academy in Stará Turá but also staff of Hotel Adam.

Expected results

- Placement of cooks and waiters with a sound knowledge of organic farming and organic food on the Slovak labour market and abroad.
- Increase in applicants to the Hotel Academy as a result of the successful employment of school graduates.
- Organic food increasing in popularity among professional cooks in Slovakia.

Links:

Hotel Academy:

<http://shastaratura.wixsite.com/sha-stara-tura>

Agropenzion ADAM

<http://www.penzion-adam.sk/prevadzky.html>

Ekofarma Charolais

<http://www.penzion-adam.sk/biofarma.html>

07 Food education

7.1 *Going beyond taste*

Food education is a life-accompanying process that is constantly affected by changes in food supply as well as in the sensory perception of foods and related food habits and experiences. Food is an opportunity for communication, integration and interaction with others. Not least, competent and responsible food choices are important for our health and wellbeing and that of the planet. Food can and should be, a tasty educational experience. Therefore, it is fundamental that children and youth, no matter what age, have direct access to food, understand its provenance and work with local food gardening, cooking and tasting. In this way, invaluable everyday-nutrition, environmental and social competences can be learned.

Promoting behavioural changes exclusively through the provision of information and knowledge has proven to be unsuccessful in recent years. The circumstances and context of food-production and consumption have also to be considered and respected. High-quality food will only become a good dish when the chef has the relevant knowledge and know-how to prepare it, the meal is attractively presented and can be enjoyed in a pleasant atmosphere, for example, together with friends and with sufficient time.

Therefore, kindergartens, schools, and other other public catering facilities play an especially important role in shaping food culture and nutritional competencies and in supporting health and a sustainable lifestyle. Kindergarten and school catering is more than just eating. It has a high social value and conveys the values concerning food-handling with nature and the ecosystem at large. When educational content is combined with an appealing and appropriate meal-choices presented in an equally appealing environment, recipients benefit on a cognitive, sensory and emotional level.

Therefore, an exciting consideration would be to see food education not as a completed and closed project once or twice a year, but as an ongoing commitment requiring regular impetus. This is with the aim of delivering the theory and practice in tandem. With this in mind, some suggestions and good practice examples are presented below. These examples are not finite and can be used both generally, as ideas for a project and specifically, for daily impulses.

7.2 *Suggestions and good practice examples*

7.2.1 *Impulses*

The issues relating to nutrition, food production and sustainability are manifold and therefore offer numerous connecting points for different teaching strategies in schools. They can also be the starting point for discussions and debates. But even for pre-school children, a spirit of discovery can be awoken quickly through small yet targeted impulses.

Experiments as impulses

With simple experiments for small children and more sophisticated ones for older ones, children

can easily be inspired. Older students can be stimulated with questions such as, what happens when you put an egg in vinegar?, what happens when you sprinkle salt or sugar on a slice of cucumber?, what happens to a bunch of grapes when it dries up? can a lemon conduct electricity?, how does beaten egg white form or milk foam and why does it break down when you sprinkle cocoa powder on it? There are many questions and much scope for experimentation.

At different school levels, primary as well as secondary, there can be different teaching strategies where such experiments can be very well integrated into for example, biology and chemistry teaching.

Lunchbox as an impulse

The lunchbox can be a good impulse. Teachers and educators can check and discuss the contents of their lunchboxes together with children. Additionally, a little competition can be introduced. The German Nutrition Association of Thuringia has created a “6-star breakfast cup” by which children receive a daily star depending on what they have from the various food groups in their lunch-box. At the end of the week a winner is announced.

Taste as an impulse

The senses also provide a wide field for discussion. It can be stimulating to focus on individual foods together with children or students. It is important to let children talk about them and to let them describe their impressions and experiences as they can unlearn this with the time. A portable herb garden can be a first step. For example, students can also be familiarised with different apple, tomato, carrot and potato varieties or bread sorts: How do they taste or smell? How do they feel and what do they look like?



Photo: Verbraucherzentrale
Thüringen



Photo: VZTH
Presentation of competition results
“School meal – regional, healthy
und good“

Further suggestions/examples for food education activities by Thuringian Oekoherz

- Food origin
- Senses
- Seasons. The Shooting/Milk-shake Ritter ([link](#))
- Food cultures
- Food culture in numbers ([link](#))
- Experiments ([link](#))
- Food education by German association for nutrition: Fruit and vegetable-king/queen ([Link](#))

- Lunchbox
- Food education activities by German association for nutrition of Thuringia: 6-star breakfast Cup ([Link](#))
- Food education activities by Verbraucherzentrale Thüringen: ([Link](#))

7.3 Excursions and projects

If a theme block is extensive and more time is necessary, a topic subdivision over several lessons can be helpful. Through excursions, certain aspects of some topics can be well absorbed and also strengthened by practical exercises (e.g. food preparation). The linking of head and hand or the inclusion of an emotional component is for many students more sustainable.

The Farm: A Place of Learning

Excursions to farms have been popular for some time as they offer first-hand knowledge and experience of farming and can demonstrate the value of particular regional and organic food-production. In the last few years however, new high quality on-farm education is being developed. It is no longer just about introducing the farm as a business. Farmers now link the idea of their work increasingly with educational content and find ways for children, students and other consumers to be actively involved. For example, currently in Germany there is a Federal Work Association "Lernort Farm e. V." ([baglob.de](#)) as well as many regional initiatives that have their own platforms under the title Place of Learning - Farm or Place of Learning Agriculture.

In the German federal state of Thuringia, overview materials for teachers have been created within the project Saale-Orla School Meals - Regional, Healthy and Good ([schulesen.org](#)). Farmers were trained in advance and supported in developing their educational offers. These offers are now available in a folder for teachers, who can include them in their teaching practice. For example, at a trout farm, students can follow the development of trout from egg to edible fish. They can investigate water quality, observe aquatic life and organisms and learn about and discuss ecological relationships.

At the Potato Farm in Nottleben in Thuringia, particularly in autumn, children can help out during the potato harvest. The different potato varieties are not only identified visually but also tasted. Afterwards, this humble bulb is no longer just a boring side dish.

In general, food is an interesting starting point for educational projects. In this way, food providers and caterers can be well supported while trying to introduce new dishes or components. For example, if components such as couscous, polenta slices or millet appear on the menu, pupils and students will often not choose them as they are unfamiliar with them. In this instance, a project dealing with topics relating to cereals would be suitable. Children and students can deal with the following questions: Which cereals exist? Which products originate from cereals? Where are cereal-products processed and prepared and how do they taste? If possible, the cereals should be prepared and tasted. In this way, the learned and transferred knowledge can be experienced in a different way.



Photo: SBBS Gera "Powersnack" - Competition of the Vernetzungsstelle

Further suggestions for practical food education activities

- Place of Learning Farm
- Students buffet
- Market check in supermarkets, looking for labels of organic and regional products

7.4 Nutrition education in the canteen

The canteen or cafeteria is an ideal place to experience nutritional education independently of a pedagogical context. However, the frame-conditions are very important in such a scenario. The offer should be presented attractively and be of high quality. In addition to an appealing atmosphere and environment, the time-frame of the experience should be sufficient for consuming the products.

High School Canteen at the Roman Castle in Bad Kreuznach

Since 2012 the lunch menu has been prepared and cooked fresh in the local school. The products used are mainly quality regional and seasonal. The raw ingredients which have been processed, prepared and offered as part of a daily menu are exhibited at the canteen entrance. The kitchen area is open, so that students can see behind the scenes and also feel involved. In addition, the room is attractively and age-appropriately designed and therefore the canteen is a popular venue. The school nutritionist is cooks regularly with the students and there is a communication link between students, parents and the kitchen.



www.roeka-kh.de/schulverpflegung/food-ducation

[Link 01](#)

[Link 02](#)

Carolinum in Neustrelitz

Students are involved in the preparation of school meals in an unusual and special way. In a rotating system, one class is responsible for the preparation of school-lunch for a period of one week. The class is supported and guided by the chef. There are daily menus consisting of salad, main courses and dessert, as well as an alternative menu - pasta with pesto or tomato sauce.



Photo: VZTH; Cooking event inoga 2012, with pupils of the Montessori-School Jena und Peter Franke



Photo: Verbraucherzentrale Thüringen

Further suggestions of practical food education activities

- Presentation of the ingredients of a meal in a showcase at the canteen entrance
- Glass Kitchen in schools which cook themselves
- Students` Café, managed by students
- Students help in the canteen
- Students cook for their peers
- Thematic Exhibitions in the canteen
- Table display for canteen

7.5 Food education through the caterers

It is worth establishing good contact between caterer and catering-establishment. For example, praise can be then be communicated directly, as well as problems discussed and clarified. Through the offer of the food provider for the establishment/institution, the caterer plays a crucial role in food and nutrition education. It is the task of the kitchen to process quality food into attractive dishes and present them appealingly by trained and professional staff. The provider/caterer can make a valuable contribution through the compilation of the menu, the variety of products used and the variety of dishes prepared. Close communication with the establishment is advantageous, as this also facilitates common arrangements, e.g. in the introduction of new foods or the preparation of new dishes. If required, this can be discussed in advance by institutions and customers (parents, children/students).

The invitation of children and students (or consumers in general) to a big kitchen leaves an impression on both sides. Often, people are unable to imagine what the cooking which takes place in such kitchens, involves. All participants are able to discuss with kitchen staff the suitability and nutritional value of certain products and meals and not others (e.g. fries). Also, regularly held cooking classes/courses or tastings of new dishes or ingredients can be included in the catering offer for customers.



Photo: Verbraucherzentrale Thüringen

Other providers invite students to a 'food-theatre' and mediate knowledge about food and nutrition in this way, followed by the collective preparation of a small snack.

Further examples of practical food education activities

- Invitation and visitation of the canteen kitchen
- Cooking lessons with pupils
- Preparing and tasting new foods or components
- Basket Theater ([link](#))

SANPEI

Healthy like a fish and Fit as a fiddle

Sano come un pesce - Research & Development project to introduce fresh, organic farmed, local fish into public canteens.

Why did we do this?

Sanpei is a R&D project aimed at the development of organic aquaculture and its promotion in school catering. Sanpei studied and experimented with the innovations required along the supply chain, from aquaculture farm to the table, in the stages of production and processing, transportation and distribution, preparation to consumption. Sanpei also provided outreach and educational activities among farmers, caterers, school staff and children. The project responds to multiple problems and needs: the nutritional needs of children; the inadequacy of the fish served in canteens and the consequent huge amount of fish wasted in refectories; the persistence of a number of organizational, logistic and technical limiting factors that hinder the provision of fresh, organic and locally farmed fish; the absence of a large offer of both organic and affordable product even with the lack of a strong market. The project is proposed as a pilot program for a potential national initiative "School fish scheme" following the example of the EU School fruit and vegetables scheme.

What has been done?

The main objective of Sanpei was to improve fresh, organically farmed, local fish such as sea bass, sea bream and mullet, in public canteens through the preparation of nutritious, attractive and suitable recipes.



Photo: SANPEI project

SANPEI is a National Italian project led by the National Research Council of Italy (CNR)

- Specific objectives have been:
- organic breeding of sea bass, sea bream and mullet: definition of protocols, trial and comparison between organic and conventional;
- characterisation of production from the nutritional point of view;
- characterisation of production from the economic point of view;
- analysis and testing of the whole supply chain; innovative and participatory educational activities for children and teachers such as the 'Travel to the Sanpei Island' program and a theatre performance for children and families.

Lesson learned

From an economic point of view, the estimates obtained in the course of the project show that Italian public canteens could absorb almost half of the production of the national fish farming.

Another point is that children involved in the educational project eat significantly more fish than the other kids, reducing the amount of fish that ends up in the garbage. Sanpei must therefore be accompanied by appropriate actions by the public managers: clear contractual language provided by the public tender describing exactly what is required; additional monitoring to ensure compliance of the service.

Links and sources:

Pagliarino, 2013.

sanpei.ceris.cnr.it

youtube.com/watch?v=ZN5J6vv5ICY

08 Communication: moving from internal to external

Within the context of a growing sensitivity to healthy nutrition, it can be seen that an interest in regional organic food is steadily increasing. Added value arises when regional and seasonal aspects are added to organic quality. These issues have meanwhile, also reached community catering, in particular school catering. Indeed, more and more community catering companies are procuring organic food products. It is of little import whether a caterer converts only individual components to organic ones or offers entirely organic menus. Their success depends on good planning. Additionally, greater value is achieved when sustainable aspects are involved in the restructuring process. The basis for the success of the set objective is the elaboration of a well thought-out concept in which all stakeholders are able to interact. This begins with the caterer's kitchen team, continues with a responsible institution/ establishment, via which food is distributed and ends with the consumer e.g. with the pupils and parents of the school facility. Reliable and efficient internal and external communication is critical for the success of such a project from the planning phase onwards.

8.1 Internal communication

In the conversion process or in the integration of organic products into menus, catering companies must alter their strategies in order to keep both quality and costs manageable. Each caterer has to consider which goals he/she wants to achieve, the company's values and quality standards and develop the guiding principles in which employees/kitchen staff are involved.

For example, the following questions may arise with regard to the integration of organic food:

- What should be exchanged: individual products, organic components or complete menus?
- Should organic products/meals be used in the context of lunch- or snack-catering?
- Which products play the most important role in the conversion: fruit and vegetables, vegetarian products or meat and sausage products?
- What is the budget?
- What percentage of organic goods should be imported?
- What is the right approach or concept for the stakeholders?

In the process of change with regard to sustainability, the following aspects can play a meaningful role:

- Use of ready-made products and pre-prepared food
- Daily cleaning and cutting of fresh fruit and vegetables
- Multiple delivery of fresh products on a weekly basis
- No flavour enhancers and/or colourings
- Preferential use of regional products
- Meat products from suppliers with good animal welfare
- Seasonal adaptation of menus
- Use of fair trade products
- Respectful handling of foods and their careful preparation
- Energy optimization of kitchens
- Working conditions and working environment

The complexity of questions and issues makes it clear that every company has to understand which concept is most suitable for its individual needs.

The inclusion of all employees (kitchen and delivery staff and kitchen management team) in the decision-making process enables them to identify with the new values and support them and their implementation fully.

It should be reasonable to start the conversion and changeover with small, incremental steps.

Schoolcatering Menüett Castle Tonndorf (Germany)

- *The philosophy of the catering service Menüett is a nutrient-rich natural kitchen with daily fresh cuisine of seasonal and 100% organic dishes. Many vegetarian ingredients are used to create a wide range of dishes.*
- *A special note is given by the adaptation of the recipes to the appropriate season, taking into account the warming and cooling components, such as herbs and spices.*
- *The Menüett staff also contribute to food education in informal way by offering cooking and baking workshops to healthy diet, gentle food processing and the culinary variety of the cuisine of various cultures, organizing culinary activities for hiking-, travel- and children groups, as well as for events, meetings and seminars at Tonndorf Castle.*
- *(<http://www.schloss-catering.de/index.php>)*

Well informed - sound leadership and staff management

In order to integrate staff into the complex restructuring process successfully, it becomes clear that good training is required, in particular in relation to the added value of regional and seasonal organic food. Training courses can be carried out at different levels.

In addition to the transfer of theoretical and technical knowledge, the acquisition of practical skills should also be a priority. A visit to the supplying organic farm is the best example of the basic principles of organic farming and its importance for the environment and nature. Visitors to the organic farm can see proof of for e.g. improved animal welfare and the preservation of soil fertility. The quality of organic food is best illustrated by a cookery workshop followed by a joint tasting.

“Organic for everybody”

For more than ten years, the campaign “Organic for Everybody” in Germany has evolved into a nationwide network as an impetus for sustainable kindergarten and school catering and offers workshops in this context. The campaign was initiated and is financed by the Federal German Ministry of Food and Agriculture within the framework of the Federal Program for Organic Agriculture and other forms of sustainable agriculture. The network was initiated by the German Society for Nutrition and German consumer centers. Today, the network also brings together Networking Centres for School Catering, Teacher Training Institutes and eleven regional partners.

Workshops focus on topics such as the basic principles of organic farming, sources of organic food, cost-neutral integration of organic products, product rationality, seasonality of meals, reduction of meat share, and increased share of vegetarian dishes.

In addition to the transfer of expert knowledge, the focus is on practical experience in these areas. The workshops are ideally complemented by cookery lessons with experienced chefs, a guided organic farm or organic bakery excursion or by a visit to a school kitchen. They serve as a platform for the exchange of experience and networking by caterers and educators.

The success of this campaign over the last 10 years means that over 1,000 workshops (20,000 participants) have been realised. A survey of participants showed that 13% have been inspired to switch to organic products for the first time and a further 20% have increased their organic share.

[Link to Oekoherz](#)

[Link to Ble](#)

[Link to Oekolandbau](#)

Decisive for the successful implementation of the concept, is to gain experience in order for step by step optimisation of the system. In addition to content questions, the responsible persons should oversee the team. Regular working sessions or internal meetings including a permanent exchange of experience motivates staff and opens a dialogue for clarifying questions such as:

- Did we get it right? And if so, then how?
- What needs to be changed and how?

Experience gained can be collated into an info-folder. This can be used to keep track of all procedures, responsible persons, lessons learnt and also be provided to newcomers to the team.

8.2 Networking of all stakeholders

Wherever caterers decide to introduce organic food into their catering concept, special food and drink committees, including relevant stakeholders should be set up. In school canteens in particular, stakeholders such as parents, teachers, pupil representatives and providers should meet at one table. If all stakeholders can be involved in the decision-making process from the onset, the project is more likely to succeed. All stakeholders have to work together for change with good communication and trust, a prerequisite. It would be reasonable to set details within a timetable and start with small steps in the conversion process. In addition, healthy and balanced diets and the acceptance of the new food supply by consumers must be harmonised. Targeted recipes with a wide variety of attractive vegetarian dishes can make it easier to get the process started.

Jenaplan school in Jena, Germany

The school intended to develop a new catering concept and has set up a canteen round table together with the Network Office for School Catering. Within this round due to quality demands of involved parents, teachers and pupils the search for a food provider started. All stakeholders were involved in the restructuring process. They searched for partners and supporters. In regular meetings (1-2 times a month), information was gathered, experiences were exchanged, wishes and limits were collected and discussed and a clear assignment of further tasks defined. All other parents, pupils and teachers were informed about the developments.

Wishes	Limits
<ul style="list-style-type: none"> - Cooking on site (in school kitchen) - More organic foods, esp. meat, milk and eggs - Regional and seasonal offers - Buffet, salad buffet - Implementation quality standards - Considering allergy sufferers - Using unprocessed products 	<ul style="list-style-type: none"> - Meal price - Investments in the kitchen - Small storage area

A survey of parents and pupils confirmed the wishes drawn up and the set the price limit per meal portion. The start succeeded - the meals were tasty, the offer was well accepted.

Further developments led to new questions and challenges e.g. food quantity and waste amount, waiting times, organic and regional proportions in meals, menu design and compliance with quality standards.

The monthly discussion rounds are still continuing, further interviews with all stakeholders were carried out and the information was passed on to all.

The process led to success, all the actors stand behind the concept and the acceptance of the food offer among the pupils has risen sharply.

8.3 External communication

Caterers who offer organic products on their menus are required to communicate this to the consumer transparently. In this context, targeted communication is of great importance. For example, surveys amongst pupils have shown that issues relating to health and organic quality barely play a role in canteen usage. In contrast, in the course of the rising sensitivity to healthy nutrition, issues of organic, regional and vegetarian diet have become increasingly important for parents and educators. The canteen should not only invite people to consume food, but could also be a comfortable meeting place. Particularly for students, the school canteen should be a popular meeting place. Students are also more likely to be enthusiastic about organic food at specially organised events. Organic farmers presenting their products within these special action days or events (and thus highlighting the special features of organic fruit and vegetable growing and animal welfare), can contribute to the success. In addition, there could be craft and painting activities for younger pupils with a subsequent exhibition of their works. Children and adolescents want to know what they have on their plates and should be familiarised with the ingredients in their food step by step.

Food@ucation - knowing what tastes project in the canteen at the Römerkastel in Bad Kreuznach (Germany)

The project was initiated by the star cook Johann Lafer. The food is cooked freshly on the spot and at the same time the preferences of pupils are respected. The overall concept includes also the design of the rooms. The students receive the daily offered meals before the food serving area displayed on a display in attractive pictures. In addition, the unprocessed individual components of the meal are presented on plates in a show case. Pupils and parents can express their opinions by returning their feedback with wishes, positive as well as negative critique via simple feedback cards in the feedback box.

Great ideas will be implemented in the menu planning.

(www.foodeducation-catering.de/)

Food service providers should be able to use various platforms, e.g. website, notice tables and exhibitors in the cafeteria, information leaflets to inform users about their philosophy and illustrate previous successes. Background information on organic farming is just as important as other aspects of sustainable nutrition. This also creates an important and much needed price consciousness of a healthy and sustainable diet among consumers. The provider is able to communicate a clear message as soon as he gives the kitchen team and regional organic producers a real face.

The design of the menu plan is an opportunity to be clear about organic components and organic menus and thus allows the consumer e.g. parents, pupils and teachers to facilitate meal-selection. In general, it is of little relevance whether the presentation of the menu and food ordering is done via a website or conventionally in paper form. Additional links on websites from the organic components to producers or product descriptions significantly increase information content.

Even when the first successes are achieved, the work of quality assurance will be on-going. Questions and challenges arising in the second stage e.g. amounts of food- and waste, waiting times, continuous monitoring of the organic and regional proportion, menu planning and compliance with quality standards must be processed. For clarification, the implementation of monthly working sessions, surveys of consumers, e.g. pupils, parents and teachers and regular menu plan checks are helpful. A further recommendation is the subsequent forwarding of all information to all concerned, especially the catering team. This, in turn, creates a better platform for the team's understanding and its ability to adapt meals to the needs of consumers.

Free counseling: organic and local public food procurement

Smart Food Procurement 2013-2016

Why did we do this?

The background to the initiation of the project was the large number of municipalities and regions in the process of introducing more organic and local food in their kitchens and canteens, or at least having that vision. This had created an increasing demand for advice and knowledge about the organic conversion process. Furthermore, the project supports the ambitions of the government's 'Ecology Plan 2020' to double the organic agricultural area in Denmark and ensuring growth in rural areas, where a large proportion of jobs are rooted in the food industry.

What has been done?

"Smart Food Procurement" is a three-year project initiated by the Danish Ministry of Environment and Food as a partnership between various public and private actors. The project has offered advice to a target group of decision-makers, procurement managers and kitchen operators in municipalities, regions and government organisations.

One goal of the free counseling has been to support the organic conversion of public kitchens with each case of counseling organised to accommodate the needs of the recipient and of variable duration.

Typical topics have been: *Increasing the share of organic food in kitchens ; getting started with an organic conversion and which food groups to start with; applying for the Organic Food Label.*

Another goal of the counseling has been to guide and promote the procurement of local produce for public kitchens. In this regard, a central obstacle to the procurement process for kitchens are the EU regulations which complicate the situation and prevent many kitchens from buying locally.

In addition to counseling, the project has gathered knowledge about best practices in food procurement, strengthened cooperation in the value chain from the producer to the kitchen and developed tools to help public purchasers in the future.



Photos: Vestjyllands Højskole

Lesson learned

One of the results of the project is a new website featuring the experience gathered during the project period. The website has useful guidance and tools:

- Tool to calculate food shopping needs;
- Guidance on local food procurement;
- Season-tool;
- Guidance on public procurement of sustainable and local fish;
- Guide to controlling food contracts;
- Manual for sensory tests

Target and stakeholders

Decision-makers, procurement managers and kitchen operators in municipalities, regions and government organisations.

Expected results

- Placement of cooks and waiters with a sound knowledge of organic farming and organic food on the Slovak labour market and abroad.
- Increase in applicants to the Hotel Academy as a result of the successful employment of school graduates.
- Organic food increasing in popularity among professional cooks in Slovakia.

Replicability

The 'Smart Food Procurement' project can be replicated in other EU countries which have ambitions in line with the Danish. Political support is the key to the project's success.

Needed resources

In the Danish scenario, a budget of 1,67 million € for the 3-year period was made available. Furthermore, a public-private partnership was established to ensure that all necessary expertise and knowledge was available.

Links:

<http://klogefødevareindkøb.dk/>



Photo: The Organic Food Label

Project partners

Six partner organisations in the EU ERASMUS+ project “Organic Cooks in Public Settings” from five different European countries have been inspired by each other during the course of the project and contributed to the development of this publication.

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www.oekoherz.de

AIAB Liguria – Associazione Italiana per l’Agricoltura Biologica

(Italy)

www.aiabliguria.it

Centrum environmentálnych aktivít

(Slovakia)

www.cea.sk

Verbraucherzentrale Thüringen - Vernetzungsstelle Schulverpflegung Thüringen (Germany)

www.vzth.de/schulverpflegung

University of South Bohemia – Faculty of Agriculture

(Czech Republic)

www.jcu.cz

Vestjyllands Højskole

(Denmark)

www.vestjyllandshojskole.dk

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- Verordnung über die Vergabe von öffentlichen Aufträgen (Vergabeverordnung " VgV): Bundesministerium für Justiz und Verbraucherschutz, 12.04.2016
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