

Organic produce in municipal foodservice operations and other public bodies in Germany

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Abstract

Background: In Germany, federal, state and local authorities are increasingly integrating issues of environmental and social sustainability into procurement policies. The network of German organic towns is one of the pioneers and drivers of this development, working together with the aim of promoting the production, processing and consumption for organic and local food.

The **aim** of this study is to determine the status quo for the use of organic foodstuffs by local authorities and other public bodies throughout Germany.

Research was carried out **by means of** a desk study of pertinent literature, the websites bioC.info and oeko-kontrollstellen.de, as well as personal communications from organic suppliers, consultants and companies that assist caterers submitting tenders. Municipalities already using organic foods to a significant extent in their service provisions were identified and examined regarding their process in establishing organic use, the extent and areas of their use. Students of the M.Sc.-degree programme "Sustainability in service management and food industries" were involved in the survey.

This paper presents the **results** of the municipal survey in the form of contrasted case studies, all of which target organic use for meal provision of children and youth in kindergartens and schools. Exemplary projects include "Bio für Kinder" (translation: Organic for Children) by the city of Munich together with Tollwood GmbH, the latter of which organizes a cultural tent festival in Munich twice a year. A further case is the resolution by the city of Munich that in kindergarten and school meal services at least half the foodstuffs procured must be of organic production.

In **conclusion**, even without specific policies, many catering facilities in the public sector are already using organic food in divergent ways and to varying degrees. The use is strongly linked to individuals in administration and to supportive political climates in the states.

1. Introduction

1.1 Background

In Germany, federal, state and local authorities are increasingly integrating issues of environmental and social sustainability into procurement policies. In the states of Bavaria, Baden-Wuerttemberg and North Rhine-Westphalia, for example, reports, guidelines and a code of practice on this subject were or are being written. Furthermore, a working group, with participation by the Federal Chancellor's Office, a number of Federal Ministries (the Federal Ministry of Finance, the Federal Ministry of the Interior and the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety) and the Federal Office for Agriculture and Food, is dealing with the concept of sustainability for the supreme federal authorities. The network of German organic towns is one of the pioneers and drivers of this development. Here, among others Munich, Nuremberg, Augsburg, Heidelberg and Freiburg work together with the aim of promoting the production, processing and the demand for organically grown local food

(biostaedte.de). On the 4th of February 2016 the German network of Biostädte was officially launched with nine members. As the name implies, the main focus lies in supporting organic food and farming through municipal measures.

Much of this effort in “greening” public procurement overall is aimed at meals served to children and youth in kindergartens and schools (Strassner & Roehl, 2014, Roehl & Fülles 2012). There are a number of factors that contribute to this development: (1) the schooling system is undergoing many changes that include the move to all-day schools (Ganztagsschulen), necessitating a hot meal service, and bringing forward school leaving (Abitur) by one year i.e. after 12 years instead of 13 (known as “G8”), (2) successive integration of earlier health and nutrition initiatives into a large, national programme that targets all school meal stakeholders. IN FORM is Germany’s national action plan to promote healthy diets and physical activity across all age groups. These initiatives include the creation of a Network Centre for School Meals (Vernetzungsstelle Schulverpflegung) in each of the 16 federal states, and the adoption and continued development of quality standards for school meals (DGE 2014) and other institutional foodservices by the German Nutrition Society (Deutsche Gesellschaft für Ernährung, DGE). The quality standard for school meals is a national standard with a voluntary character. It includes general recommendations on aspects of sustainability.

1.2 Purpose of the investigation

The purpose of this study is to determine the status quo for the use of organic foodstuffs by local authorities and other public bodies throughout Germany. The focus of interest lies with public bodies that stipulate the use of certified organic products in foodservice operations under their responsibility, specifically which target organic use for meal provision. The investigation is exploratory in nature.

2. Materials and Methods

Research was carried out by means of a desk study of literature pertinent to public procurement in Germany, especially green public procurement and sustainable public procurement. Two internet directories of certified organic operators were screened (the websites bioC.info and oeko-kontrollstellen.de) in which data is provided by participating control bodies and associations. Furthermore, personal communications from organic suppliers and consultants were sought, though this approach was not exhaustive. Municipalities already using organic foods to a significant extent in their service provisions were identified and examined regarding their process in establishing organic use, as well as the extent and areas of their use. Where possible, tenders and associated materials were included as a documentary source. Students of the M.Sc.-degree programme “Sustainability in service management and food industries” at FH Münster University of Applied Sciences were involved in the municipality survey which took place in the timeframe from March to July 2015.

3. Results

3.1 Local authorities and other public bodies overall

The results of the municipal survey quickly made evident that almost all cases but one found during the time frame of the study were cities that were focusing their efforts on the public procurement of meals in schools and/or kindergartens. We therefore excluded other municipal institutions of social welfare such (e.g. public hospitals or homes for the elderly). Since our interest lay in the introduction and use of organic produce by means of the tender process and we selected cases accordingly, we have no information on whether any other aspects of

sustainability are being addressed by public food procurement policies in other municipal institutions.

The case of the city of Berlin, which has a relatively long history of addressing public procurement of school meals and the integration of organic produce into those meals, is excluded from this paper since it has been comprehensively reported on elsewhere (Roehl et al. in press, Arens-Azevedo & Tecklenburg 2012, Nölting et al. 2009, Jäger 2008). As a contrast to the cases presented below it may be mentioned that the city of Berlin stipulates a minimum of 15 percent organic in its technical specifications (Partmann 2013). Higher proportions of organic food are awarded more points according to the staggered evaluation criteria. Bidders not meeting the 15 percent entry level are excluded from the bidding process. This minimum organic level has meanwhile been reached at all elementary schools in Berlin, on average the organic level in school meals has reached 40 percent (FÖL 2014).

3.2 Individual or independent public bodies

Federal Office for Agriculture and Food

The Federal Office for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung, BLE) is tasked with matters that fall within the scope of the responsibilities of the Federal Ministry of Food and Agriculture (Bundesministerium für Ernährung und Landwirtschaft, BMEL). These areas include food supply and security, control and licencing, market issues, programmes and research promotion as well as international relations. The federal offices are located in Bonn, Munich and Weimar in which more than 1.200 employees are based. (BLE, 2015)

In 2014 the federal institution in Bonn revised the concession assignment details for its on-site canteen. With the call to tender the BLE searched for an operator able to provide contemporary, healthy and tasty food offers and able to service the canteen rooms as a space for sharing mealtimes and providing further communication opportunities amongst BLE employees and also their guests. The technical specifications, which comprise 17 detailed pages, include guidelines for the quality and the origin of the foods. Food specifications include the use of fresh products of high quality, as far as possible from local production in-season and therewith linked to short routes of transport (short chain). The proportion of local organic foodstuffs has to reach at least ten percent of procurement value overall and, in so doing, emphasis is to be laid on long term supply partnerships with (organic) farmers. Certain foods, e.g. carrots for the salad bar, couscous and whole wheat noodles, should be offered nearly completely in local and/or organic quality. In addition, three or more meal components in organic quality and preferably of local origin are to be included in the menu every week and clearly labelled for easy identification. It is explicitly mentioned that offering and labelling entirely organic meals or regional meals is not necessary. Bidders are expected to undergo organic certification according to German law.

3.3 Cities including organic food quality in their technical specifications

3.3.1 City of Neuruppin

Situated on the shores of Lake Ruppín some 70 km North of Berlin lies the city of Neuruppin. About 32.000 citizens live in and around this city in the federal state of Brandenburg. In the city's Strategy 2020 paper a core sentence states that Neuruppin's future lies in education (Fröhlich 2010:7). The city sees itself as having an important regional function in the provision of teaching concepts and infrastructure starting with pre-school, through primary, secondary and tertiary education institutions.

In early 2015 the public procurement contract addressing meal provision in all of the city's urban kindergartens and schools was revised and put out to tender. About 1.700 meals are provided on a daily basis. The head of the city's Office for Education, Culture and Social Welfare as well as the parents sought an improvement in food quality. A town hall meeting was convened in order to inform parents about the new tender and to gather requests and suggestions from them regarding the school and nursery school meals. The head of the Office had already dealt with the subject intensively in advance. As one measure, he attended a seminar at the Network Centre for School Meals in Brandenburg (Vernetzungsstelle Schulverpflegung Brandenburg), which covered exactly this same issue of invitations to tender for school and nursery school catering. After the seminar he continued to have discussions with the Centre. At the meeting with the parents he was thus already able to present a draft service specification which was then discussed. The support for organic and local food came from both the parents and the head of the Office. At the request of the parents and in order to give smaller regional service providers a chance, the tender was divided in two lots, namely one for the meal service of the schools and one for the kindergartens. The advanced draft version of the tender criteria was then introduced to all schools and nursery schools at their school conferences. They were able to decide freely whether they wanted to participate in the central tender or submit individual tenders. Finally all schools and kindergartens agreed upon a single set of tender documents. Two reasons suggested for this success are the very good preparation and the full participation of institutions in the design of the tender. Moreover, there were some points that the pre-schools and schools could still decide individually for themselves, such as offering a buffet or select menu lines. The inclusion of foods of certified organic quality is now a tender criterion which can constitute up to 15 percent of the total tender evaluation.

3.3.2 City of Oranienburg

The town of Oranienburg lies in the North of Germany, about 35 km beyond Berlin, in the federal state of Brandenburg. Its population comprises over 42.000 citizens and its infrastructure offers around 20 kindergartens and as many schools. (Oranienburg n.d.)

In Oranienburg the desire for the inclusion of organic products in school and kindergarten meals came from the parents. They also voiced concerns about integrating more healthy and fresh food into the catering for children at the revision of the town's quality criteria. Accordingly environmental aspects and aspects relevant for health should be more strongly taken into consideration. Specifically a 10 percent organic product level was demanded with the renewed tendering of the catering for schools and kindergartens in 2014. Evaluation criteria of the bids included the price and the fulfilment of the quality concept, which each contributed 35 percent into the assessment, while the remaining 30 percent was awarded for the fulfilment of the organic proportion.

3.3.3 City of Gotha

Gotha, linked to the life of Martin Luther and the history of the reformation, today is home to about 46.000 people. Children and adolescents attend one of approximately fifteen schools in the Thuringian city (Stadtverwaltung Gotha 2016). Invitations to tender for meal provision services are centrally coordinated by the city offices. The development of the most recent tender documents (Stadtverwaltung Gotha 2015)) took place in a number of meetings with parents and with facility managers. During this process it became evident that the origin of food used was increasingly important to the stakeholders and that there was a desire for organic produce..

The Thuringian Law concerning the Allocation of Public Contracts (*Thüringer Gesetz über die Vergabe öffentlicher Aufträge – ThürVgG*) forms the basis for the tenders concerned with kindergarten meal provision. Paragraph four makes provision for including environmental and social criteria in procurement procedures (ThürVG 2011). It states that environmental and social concerns can be considered at all stages of the procurement process, including the definition of the subject of the contract, the technical specifications, the selection of bidders, the award of the contract and the conditions for the execution of the order, provided that they stand in connection with meeting the order and are indicated in the announcement or the tender documents. As a result the aspects "preparation and production" and "origin" each now contribute nine percent in the invitation to tender for warm meals in five of the kindergartens. Here the use of organic food plays a role as well as the question as to whether the supplier has organic certification. These aspects are incorporated in the invitation to tender under the criterion "quality", which in addition to the criteria price, visual appearance as well as freshness and flavour, counts as a main criterion.

3.3.4 City of Landau

The local education authority of the city of Landau (population: 43.000) in the federal state of Rhineland-Palatinate wants attractive, healthy school meals that are in accordance with the national school meal recommendations of the German Nutrition Society (DGE). In 2015 the invitation to tender for lunch services in nine all-day schools was announced (Stadtverwaltung Landau 2015). The description included the request to include local, in-season and organic fruit and vegetables where possible. In this case a binding requirement was waived because the potential bidders were already constrained by the catering system "warm delivery" and the associated maximum hot holding times.

3.3.5 City of Norderstedt

Norderstedt, with almost 72.000 inhabitants, is the fifth largest city in the federal state of Schleswig-Holstein. The state itself has a population density below the national average and projects into the sea with the North Sea on one side and the Baltic Sea on the other. There are roughly three kindergarten groups in Norderstedt according to different funding support: 14 independently funded, 11 church-funded and ten publicly funded (2015/2016) kindergartens (Stadt Norderstedt 2015).

The Office for Schools, Sport and Kindergartens is responsible for organising meal provision services at eight kindergartens. After a thorough debate on the issue, the city administration defined organic quality as an important criterion in the context of public tenders. It arose at the time of conversion of the foodservice systems from cook-to-serve to delivery-to-serve. In order to have further criteria over and above price in the tender process, "organic" was chosen to describe the quality of the food used. Furthermore, the city Norderstedt uses the DGE quality standards for school meals as guidance, which suggests that organic foods can and should be used.

While in the tender documents "organic" is not explicitly required but merely indicated as "desirable", it has a significant impact as an award criterion in the evaluation. If less than ten percent organic is reached, the bidder is awarded no points, for up to 40 percent organic 50 points are awarded (5 percent), while for over 40 percent organic 100 points are awarded (10 percent). An organic certificate of the potential contractor will be awarded with an additional 50 points (5 percent). A total of 1.000 points (100 per cent) can be achieved within the evaluation, so that the points awarded for the use of organic food make up a large part (up to 15 percent at 100

percent organic plus organic certification). The tender did not specify which product groups should be organic. The kindergartens can choose from different meals, thus the proportion varies between kindergartens.

3.3.6 City of Marburg

Once home to the Brothers Grimm, the university town of Marburg counts about 81.000 persons as its citizens today. The federal state of Hesse, in which Marburg may be found with about 26.500 students, lies in the centre of Germany and contains Frankfurt as its largest city. The use of organic produce in Marburger kindergartens has a history going back more than ten years. Already in late 2005 the members at the city council meeting in Marburg agreed unanimously that all pre-school and day care facilities in Marburg should offer only foods from organic and / or local production. Two main reasons for this decision were a desire to avoid the use of genetically modified foods in pre-primary catering and also to support regional suppliers (Magistrat Marburg 2006). Since then all child day care facilities have been obliged by the city to exclusively use products from organic or local production. To support this type of procurement, the city of Marburg covers the additional costs compared to conventional food in the form of a subsidy of two Euros per meal. The parents' share per meal is approximately three Euros.

3.3.7 City of Heidelberg

Around 150.000 inhabitants live in Heidelberg, a UNESCO city of literature, located in the south-western federal state of Baden-Württemberg. The oldest German university can be found in this riverside town offering study places to about 30.000 students. Meanwhile more than 4.500 children aged 3 to 6 years are looked after in day care centres. In Heidelberg nearly 30 institutions run 87 facilities offering extensive and varied children's care services. The department of day-care centres of the Child and Youth Welfare Office is responsible for the urban facilities.

The issue "organic" has been omnipresent in the Heidelberg municipality for several years. Between April 2013 and June 2014 the Agenda 21 office ran a campaign called "Bio in Heidelberg" (Organic in Heidelberg). It was a campaign to promote organic food in Heidelberg and to convince as many people as possible, including residents and administration employees, to choose and use organic products (Heidelberg 2016). One element of the campaign targeted the city council as a role model. The municipal offices were provided with information and sampling opportunities and organic was included in the training program for municipal employees. When tenders were invited for catering to high schools a 10-percent organic ingredients level was set for the first time. (Stadt Heidelberg 2014)

Parents of children and adolescents in the city and also the employees of specialized agencies (for example, the Child and Youth Welfare Office) thus raised the "organic issue" when deliberating on children's meals. Employees in the contracting authority discussed with the relevant stakeholders how organic can be included in the tender. Since 2015 the influence of different technically competent participants led to tenders for the procurement of 20 day care meal services stipulating that the organic share of food has to be at least 30 percent. In the tender the food groups are not fixed and can be selected as required.

Evaluation criteria for bids include the following: environmentally friendly, sustainability, the amount of food waste and the breadth of the product range. Together these make up 15 percent of the assessment. The way individual problem formulations and special dietary needs of the children are dealt with contributes a further 15 percent. Measures to effectively deal with or avoid

procedural disturbances such as long queueing are weighted with 30 percent and the price with 40 percent. For the future a further increase in the organic level is being taken into consideration, as is its inclusion in the evaluation criteria.

3.3.8 City of Munich

Munich is the capital of the federal state of Bavaria in south-east Germany and home to 1,4 million inhabitants. Land use is a central issue for this state, especially as regards rural development. Both agriculture and food industries are important economic activities and have a high visibility for the population. The city council of Munich published a sustainability report in 2014 which includes child health and organic agriculture amongst its sustainability indicators. Furthermore, it mentions the transformation of public procurement to sustainable public procurement as a goal and the institutionalisation of sustainable development in the city administration. (Schwanck & Gruban 2014)

Amongst the initiatives mentioned in the report is the "Biostadt Munich" (Organic City Munich) which was launched in 2006 as consequence of a unanimous city council decision. Embedded within it are the individual initiatives "Organic for children" (Bio für Kinder 2016), "Organic in restaurants" (Bio in der Gastronomie 2016) and "Organic in the city administration" (Bio in der städtischen Verwaltung 2016). In 2008 the continuation of the project was confirmed in a further council decision.

Table 1: Main activities of the Organic City Munich (Stadt Nürnberg 2016)

<p>"Organic for children" (Bio für Kinder)</p>	<p>Supports kindergartens and schools that introduce organic food into their meal provision services</p> <p>50 percent organic measured according to the monetary cost of food procurement across all product categories</p> <p>50 percent of each stipulated product category (except fish) must be available in organic quality so that individual kindergartens can reach the target of 50 percent organic, 90 percent organic for meat.</p>
<p>„Organic in restaurants“ (Bio in der Gastronomie“)</p>	<p>consulting and advisory services, training, supply options in order to include organic produce on the menu, project "Eat Organic" (Ökologisch Essen n.d.)</p>
<p>„Organic in the city administration“ (Bio in der städtischen Verwaltung)</p>	<p>50 percent organic at events organised by the city</p> <p>10 percent organic for meals in municipal facilities</p> <p>10 percent organic for food offered in public institutions</p>

In the project "Organic for children", which was created at the initiative of Tollwood GmbH, a company that organizes a cultural tent festival in Munich twice a year, and in cooperation with the city's Department of Health and Environment, support is offered in the transition phase to organic. Funds are raised in the private sector, with companies or other organisations serving as visible sponsors to individual kindergartens and/or schools. Facilities are supported with up to one Euro per meal as financial aid and by means of consulting and coaching offers as further comprehensive support. The aim is that the facilities find long term solutions for the initial

additional costs arising through organic use by the end of a 2-3-year transition period and that further funding is no longer necessary. In addition to the optimisation of catering services overall, there is also extensive support in the nutrition education field, initiated by the Department Health and Environment. Besides training and information, there are cooking classes, excursions to organic farms, facilitation of trading partners and provision of information materials for stakeholders on offer.

„Organic in restaurants“ (Bio in der Gastronomie) is an initiative directed at all foodservice enterprises. A broad range of training seminars, advisory capacity and the availability of suppliers lists are designed to speed up the transition to organic products further. The project „Eat organic“ (Ökologisch Essen) supports foodservice enterprises making the change to organic. Experienced consultants are available for the development of individual organic concepts, detailed menu planning, staff training and provide contacts with organic suppliers.

For the project "Organic in the city administration" (Bio in der städtischen Verwaltung) an overall organic level of at least ten percent can be achieved. The employees of the city of Munich can partake of the foodservice via their canteens and during in-house meetings. In the case of events organised by the city, such as receptions, at least half of the products need to be from organic production. A professional consulting company has been tasked to support the city's canteens in their endeavour to improve the foodservice in aspects of quality and sustainability. The use of organic products is a key part of this. At the same time all the canteens are being prepared for organic certification within one year.

3.3 Conglomerations of public bodies

Regional Association of Westphalia-Lippe

The Regional Association of Westphalia-Lippe (Landschaftsverband Westfalen-Lippe, LWL) is a municipal association with more than 16.000 employees serving over 8 million inhabitants. Westphalia-Lippe is part of the most populous federal state Northrhine-Westphalia. There are nine independent cities and 18 districts, all of which are members of the LWL. The policies of the LWL are determined by the Regional Association Assembly; members of this political committee are elected by the citizens during the municipal elections. The LWL operates 35 special needs schools for young people with physical disabilities and/or cognitive impairments, 21 hospitals and 17 museums. (LWL n.d.)

From its catering partners, which supply the schools with hot meals, the Association demands nutritionally balanced, varied, appetizing and tasty meals, which take into account the requirements of the national (voluntary) quality standards for school meals. At four school sites the use of organic products is stipulated by inclusion in the tenders. The award criteria are broken down as follows: The price counts for 60 per cent. The quality of the meals counts for 30 per cent and service counts for 10 per cent. Meal quality is assessed as follows: half the points are awarded on the basis of "sampling / tasting". 15 per cent on nutritional quality and 35 per cent on "procurement value" – which refers to the convenience level, the proportion of organic products, regional and seasonal produce.

4. Discussion

Even though the number of case studies is relatively small and not all documents were accessible or available in each case (technical specifications, evaluation criteria) some emerging patterns can be observed.

For the public authorities described all cases have included organic food and most cases have included local food in their foodservice tenders successfully at least once. Success here is understood to mean that there are a number of potential bidders willing to participate in the tender process and potentially able to provide the services as described, including the provision of LOF. All cases were able to choose contract partners from the bidders; only Landau did not enforce the provision of LOF. The data suggest that there may be a number of reasons why the process is successful for these public bodies. (1) Good preparation of the process and the description of the desired services by the authorities are mentioned (BLE, Neuruppin); (2) the path to the invitation to tender is described as a strongly participatory process with a significant number of direct stakeholders involved either individually in their groups (schools, parents) or together (Neuruppin, Gotha), at the very least the stakeholders were heard (Oranienburg, Heidelberg); and (3) possibly having some degree of individual choice within a seemingly narrow corridor serves to help buy-in overall (Neuruppin, Norderstedt).

A wide variety of supportive instruments was reported on offer and in use across the cases. These ranged from training courses provided by thematic authorities (e.g. Network Centres for School Meals, organic foodservice experts); access to stakeholder networks including parents, bidders, suppliers, NGOs; town hall meetings; farm visits and tastings to informational materials for various target groups. Interestingly addressing financial issues connected to LOF use came up in two cases (Marburg, Munich) but with different solutions: Marburg pledges a continual subsidy whereas Munich together with Tollwood subsidises only the transition phase.

The initiatives in the various cases come from differing departments or offices within public bodies and they appear to reflect the efforts of enthusiastic individuals who want to champion local and organic food. Reasons given for the inclusion of local and/or organic food in tenders included (1) wanting food offered to be fresh, healthy, tasty/appetising, contemporary (modern) and nutritionally balanced; (2) to support (small) regional suppliers; (3) to avoid GMOs; (4) to avoid being limited to price as a criterion; and (5) as a bold positioning statement. Of these, discontent with the quality of school meal provision is a recurring issue (Lülfes-Baden & Spiller 2008). Few – indeed only Heidelberg – mentioned the need to serve as role models. Continuity of initiatives and supportive political climates appear to facilitate their further development, though our selection may cause a bias here. An upcoming end of contract seems to be a window of opportunity taken in some cases to revise tenders so that they include LOF and other related aspects.

Within the technical specifications “organic” was often linked to “local”, “in season”, “fresh” and only once to “short chains” and once to “long term partnerships with farmers”. As far as was ascertainable, organic levels expressed in values included minimum figures of 10, 15, 30 and 50 percent of the total procurement sum and/or were listed as evaluation criteria in differing ways. In some cases organic foods were specified, in others organic food groups (e.g. meat) and in one case, explicit communicability via the menu was stipulated. The rationale behind these individual decisions was not further surveyed.

5. Conclusions

In conclusion, even without specific policies, many catering facilities in the public sector are already using organic food in divergent ways and to varying degrees. The use is strongly linked to individuals in municipal administration and to supportive political climates in the states. This is in agreement with earlier observations in some European countries (Løes & Nölting 2011, Nölting & Løes 2011). Factors suggested as possibly supporting successful adoption of LOF in the tender process and subsequent meal services need to be more rigorously tested.

References

Arens-Azevêdo U & Tecklenburg ME (2012) Beurteilung der Kosten- und Preisstrukturen für das Bundesland Berlin unter Berücksichtigung des Qualitätsstandards in der Schulverpflegung Teil 1: Preis- und Kostenbeurteilung Im Auftrag der Senatsverwaltung für Bildung, Jugend und Wissenschaft Berlin, 109 pp.

Bio für Kinder (2016) Retrieved from: http://www.muenchen.de/rathaus/Stadtverwaltung/Referat-fuer-Gesundheit-und-Umwelt/Bio_regional_fair/Biostadt_Muenchen/Leitprojekte/Bio_fuer_Kinder.html

Bio in der Gastronomie (2016) Retrieved from: http://www.muenchen.de/rathaus/Stadtverwaltung/Referat-fuer-Gesundheit-und-Umwelt/Bio_regional_fair/Biostadt_Muenchen/Leitprojekte/Bio_in_Gastro.html

Bio in der städtischen Verwaltung (2016) Retrieved from: http://www.muenchen.de/rathaus/Stadtverwaltung/Referat-fuer-Gesundheit-und-Umwelt/Bio_regional_fair/Biostadt_Muenchen/Leitprojekte/Bio_in_Verwaltung.html

BLE (2015) About us. Retrieved from: http://www.ble.de/EN/00_Home/homepage_node.html

BioStadt München (2016) Muenchen.de. das offizielle Stadtportal. Leitprojekte der Biostadt. Retrieved from: http://www.muenchen.de/rathaus/Stadtverwaltung/Referat-fuer-Gesundheit-und-Umwelt/Bio_regional_fair/Biostadt_Muenchen/Leitprojekte.html

DGE (2014) DGE Quality Standard for School Meals. 4th Edition, 56 pp. Retrieved from: http://www.schuleplusessen.de/fileadmin/user_upload/aktuelles/DGE_QS_SchoolMeals_web.pdf

FÖL (2014) Bio-Hauptstadt beim Schulmittagessen. Fördergemeinschaft Ökologischer Landbau Berlin-Brandenburg e.V: Berlin: Vom 24.11.2014. Retrieved from: <http://www.bio-berlin-brandenburg.de/presse/detailansicht/meldungen/berlin-bio-hauptstadt-beim-schulmittagessen-vernetzungsstelle-schulverpflegung-berlin/>

Fröhlich R (2010) Kommunaler Bildungsplan der Fontanestadt Neuruppin Kitabedarfs- und Schulentwicklungsplanung 2009 – 2030. Ed.: Fontanestadt Neuruppin Amt für Bildung, Kultur, Sport und Soziales. 92 pp. Retrieved from: http://www.neuruppin.de/fileadmin/dateien/Bildung_und_Jugend/Kommunaler_Bildungsplan_2009-2030.pdf

Heidelberg (2016) Bio in Heidelberg. Retrieved from: <http://www.heidelberg.de/hd,Lde/HD/Leben/Bio+in+Heidelberg.html>

Jäger M (2008) Ein Netzwerk für Schulverpflegung mit Qualität – das Berliner Modell. Gesundheitswesen 2008; 70 - A47 DOI: 10.1055/s-2008-1076554

Løes A-K & Nölting B (2011) Increasing organic consumption through school meals—lessons learned in the iPOPY project. Organic Agriculture, May 2011, Volume 1, Issue 2, pp 91-110 First online: 17 April 2011.

Lülfs-Baden F & Spiller A (2008) Steuerungsmechanismen im deutschen Schulverpflegungsmarkt: eine institutionsökonomische Analyse., Diskussionspapiere. Department für Agrarökonomie und Rurale Entwicklung, No. 0809, 49 pp, ISSN 1865-2697.

LWL (n.d.) Welcome to the Internet pages of LWL! Retrieved from: https://www.lwl.org/LWL/Der_LWL/English/#anker-25

Magistrat Marburg (2006) Ökologische und regionale Lebensmittel. Stand und Umsetzung in den Marburger Kindertageseinrichtungen. Retrieved from: <http://www.dbm-marburg.de/sixcms/media.php/20/%D6kologische%20und%20regionale%20Lebensmittel-%20Stand%20und%20Umsetzung%20in%20den%20Marburger%20Kindertageseinrichtungen.pdf>

Nölting B & Løes A-K (2011) Bio-Lebensmittel als ein Baustein nachhaltiger Schulverpflegung – ein europäischer Vergleich. [Organic food as an element of sustainable school meals - An European comparison.] Presentation at: 11. Wissenschaftstagung Ökologischer Landbau, Gießen, 15.-18. März 2011.

Nölting B; Reimann S & Strassner C (2009) Bio-Schulverpflegung in Deutschland. Ein erster Überblick. [Organic school meal provision in Germany. A first overview.] ZTG discussion paper, Nr. 30/2009. Zentrum Technik und Gesellschaft, Berlin.

Ökologisch essen (n.d.) Projektstelle ökologisch essen. Retrieved from: <http://www.oekologisch-essen.de/>

Oranienburg (n.d.) Welcome to Oranienburg. Retrieved from: <https://www.oranienburg.de/texte/seite.php?id=91511>

Partmann C (2013) Neuordnung des schulischen Mittagessens an offenen und gebundenen Ganztagsgrundschulen sowie für Förderzentren im Land Berlin. Ed.: Senatsverwaltung für Bildung, Jugend und Wissenschaft, Berlin Retrieved from: <http://nbn-resolving.de/urn:nbn:de:kobv:109-opus-236187>

Roehl R & Fülles M (2012) Expertise Bewertung der Preisgestaltung von Lebensmitteln unterschiedlicher Qualitätsstandards im Rahmen der Cook&Chill-Verpflegung. Retrieved from: http://www.muenchen.de/rathaus/Stadtverwaltung/Referat-fuer-Gesundheit-und-Umwelt/Bio_regional_fair/Biostadt_Muenchen/Aktuelles.html

Roehl R, Fülles M, Teufel J & Hermann A (in press) Praxisleitfaden. Strategien und Konzepte zur erfolgreichen Einführung von Bio-Lebensmitteln im Verpflegungsbereich von Kommunen. Landeshauptstadt München, Referat für Gesundheit und Umwelt, Munich.

Schwanck J & Gruban W (2014) Nachhaltigkeitsbericht München 2014. Ed.: Landeshauptstadt München, Referat für Gesundheit und Umwelt. 105 pp. Retrieved from: <http://www.muenchen.de/rathaus/Stadtverwaltung/Referat-fuer-Gesundheit-und-Umwelt/Umweltinfo/Nachhaltigkeit/Nachhaltigkeitsbericht.html>

Stadt Heidelberg (2014.) Bio in Heidelberg Ein kommunaler Erfahrungsbericht mit Handlungsempfehlungen. 30 pp. Ed.: Stadt Heidelberg Amt für Umweltschutz, Gewerbeaufsicht und Energie Agenda-Büro. Retrieved from: https://www.heidelberg.de/site/Heidelberg_ROOT/get/documents_E-1618252638/heidelberg/Objektdatenbank/31/PDF/Nachhaltigkeitskonzepte/31_pdf_Erfahrungsbericht_Bio_in_Heidelberg.pdf

Stadt Norderstedt (2015) Information zu Norderstedter Kindertageseinrichtungen 2015/2016. 13 pp. Retrieved from: <https://www.norderstedt.de/Familie-Freizeit/Familie/Kindertagesst%C3%A4tten/Kita-Info-2015-2016>

Stadt Nürnberg (2016) BioStädte website. Retrieved at: <http://www.biostaedte.de>

Stadtverwaltung Gotha (2015) Mittagessenversorgung in 5 städtischen Kindertageseinrichtungen mit Ganztagsbetreuung. Zubereitung und Lieferung von ca. 305 Essen pro Betriebstag. Öffentliche Ausschreibung mit der Vergabe-Nr.: VOL-ÖA-51/15/007. Retrieved from: http://www.gotha.de/fileadmin/stadtinfo/Ausschreibungen/VOL/Bekanntmachung_VOL_OA_51-15-007.pdf

Stadtverwaltung Gotha (2016) Zahlen und Fakten Die Residenzstadt Gotha auf einen Blick Ausgabe 2016. Retrieved from: http://www.gotha.de/fileadmin/stadtinfo/Statistik/gotha_ueberblick_2016.pdf

Stadtverwaltung Landau (2015) Mittagsverpflegung für neun Ganztagschulen in Landau in der Pfalz für die Schuljahre 2015/2016 und 2016/2017 die Schuljahre 2015/2016 und 2016/2017 Lieferung der Mittagsverpflegung Lieferung der Mittagsverpflegung. VOL/A - EG Offenes Verfahren. Retrieved from: http://www.landau.de/media/custom/1815_4507_1.PDF?1427271634

Strassner C & Roehl R (2014) Kernpunkte einer nachhaltigen Verpflegung mit Fokus Gemeinschaftsverpflegung. p. 7-29 In: Kettschau I, Mattausch N (eds) Nachhaltigkeit im Berufsfeld Ernährung und Hauswirtschaft am Beispiel der Gemeinschaftsverpflegung. Arbeitsprozesse, Qualifikationsanforderungen und Anregungen zur Umsetzung in Unterricht und Ausbildung, HT - Verlag Handwerk und Technik, Hamburg, 152 pp. 978-3-582-04786-1

ThürVG Gesetz (2011) Thüringer Gesetz über die Vergabe öffentlicher Aufträge (Thüringer Vergabegesetz - ThürVgG -) Vom 18. April 2011 Retrieved from: <http://www.landesrecht.thueringen.de/jportal/?quelle=jlink&query=VergabeG+TH&psml=bsthueprod.psml&max=true>