

ROLE OF PUBLIC ORGANIC PROCUREMENT POLICIES (POPP'S) IN THE IMPLEMENTATION OF ORGANIC FOOD AND FARMING STRATEGIES – LESSONS LEARNT FROM DENMARK

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ABSTRACT

Targeting public procurement policies has become an important goal for European policy makers since it is believed to contribute to more sustainable food systems and food consumption patterns. Food purchased by the public for institutions such as hospitals, care homes, universities, prisons, schools, armed forces and canteens represent a significant part of the food economy in European countries. As a result governments at different levels have adopted policies that promote organic food and farming in many countries. Since agencies and institutions of the public can be expected to be influential by setting good examples of food consumption, the food for the public plate has come to take a much more visible role in public service provision policymaking over the past decades. However, for such strategies to be effective the right policy mix is essential. This paper reports on the Danish case of Public Organic Procurement Policy (POPP's) and its role in organic food and farming strategies. It gives a brief account on component of the policy mix including the setting up of a labelling system, a monitoring system for sales volumes and a foodservice workers training program. The paper examines the first results from the monitoring system and provides insight in the progress of POPP's. It details the implementation and maintenance of the monitoring program and discusses the role of metrics in relation to other policy tools as well as the contribution that monitoring can make in terms of policy implementation.

Keywords: Foodservice; Public Catering; Public Organic Procurement Policies; Organic Food and Farming.

O PAPEL DAS POLÍTICAS PÚBLICAS DE AQUISIÇÃO DE ALIMENTOS ORGÂNICOS (POPP) NA IMPLEMENTAÇÃO DE ESTRATÉGIAS AGRÍCOLAS E ALIMENTARES ORGÂNICAS: LIÇÕES DA DINAMARCA

RESUMO

As políticas públicas de aquisição de alimentos tornaram-se um objetivo importante para os gestores europeus, uma vez que se acredita que elas contribuam para a constituição de sistemas e padrões de consumo alimentares mais sustentáveis, pois, de fato, os alimentos adquiridos para instituições públicas como hospitais, asilos, universidades, prisões, escolas, forças armadas e cantinas representam uma parte significativa da economia alimentar da Europa. Em decorrência disso, governos em diferentes níveis adotaram políticas que promovem a agricultura orgânica e seus produtos em muitos países. Considerando-se que as agências e instituições públicas são bastante influentes em nível geral, ao darem bons exemplos de consumo de alimentos por meio das compras governamentais, estas assumiram um papel bastante relevante na formulação de políticas públicas nas últimas décadas. Contudo, para que tais estratégias sejam eficazes, é essencial uma articulação adequada das políticas públicas envolvidas. Este artigo relata o caso dinamarquês das Políticas Públicas de Aquisição de Alimentos Orgânicos (POPPs) e seu papel na implementação de estratégias agrícolas e alimentares orgânicas. Apresenta um breve resumo desse conjunto de políticas, incluindo a criação de um sistema de certificação para serviços de alimentação que incluem produtos orgânicos no cardápio, um sistema de monitoramento do volume de vendas e um programa de formação de trabalhadores destes serviços de alimentação. O artigo examina os primeiros resultados do sistema de monitoramento e fornece uma visão sobre a evolução das POPPs, para tal detalha a implementação e manutenção do programa de monitoramento e discute o papel das métricas em relação a outras ferramentas de avaliação de políticas públicas, bem como sua contribuição na própria implementação destas políticas.

Palavras-chave: Serviços Alimentares; Abastecimento Público; Políticas Públicas de Aquisição de Alimentos Orgânicos; Alimentação e Agricultura Orgânicas

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INTRODUCTION

Organic food and farming policies is an important part of agricultural strategies in many countries. From being traditionally entirely driven by market forces, public engagement is now an important part of food & agri policies both at national and intergovernmental levels. The first of these regulatory approaches targeted the retail sector and domestic consumption. They had their focus on both the farm and fork end of the supply chain and include a mix of information, educational measures, research programs, financial support and hard regulation. From a focus on retail and domestic consumption the role of food and eating in the welfare services has taken a more central position. Procurement of organic foods for the public plate has become an important target for European policy makers contribute to more sustainable food consumption and the idea the public can take role as a political consumer has gained ground in the past decade (BRAMMER; WALKER, 2011; LEHTINEN, 2012; JOHNSTON; FANZO; COGILL, 2014; MIKKELSEN, 2012). The importance of public expenditure on buying of goods is undisputable (MCCRUDDEN, 2004; UNEP, 2012; STEFANI; TIBERTI; LOMBARDI, 2015) and is regulated by a number of policies and rules at both national and international level. Policy makers have become aware of the different ways through which the food economy can be influenced in a more sustainable way through the implementation of greener practices of procurement. The value of food bought by the public for public sector institutions in settings such as hospitals, care homes, schools, universities, prisons, armed forces and canteens is considerable (SONNINO; MORGAN, 2007; RIMMINGTON et al, 2006; MØRK; TSALIS; GRUNERT, 2014) and public sector food represent a significant part of the food economy in European countries (BARLING et al, 2013).

Many governments have adopted policies that promote organic food and farming and as a result agencies and institutions of the state can be expected to set a good example when it comes to the ways food for the public plate is purchased, prepared and served as part of public service provision. However, for policy implementation to be effective monitoring of progress is important.

This paper examines the first results from implementation of the recent monitoring system for Public Organic Procurement Policy (POPP's) on the context of current Danish policy on public sector food and organics, guided by the Organics 2020 strategy¹.

Against the background of the first results from the recently implemented data collection program for Public Organic Procurement the aim of the paper is to discuss the potential of the public food sector as a target for organic food consumption policies. In addition we aim to share first insights from setting up reliable and accountable metrics to monitor the policy progress.

1. MATERIALS AND METHODS

The annual survey "Sales of Organic Products to Foodservice" has been set up as the metric for measuring progress in the POPP. Data was collected by Statistics Denmark in a questionnaire targeted food wholesalers. Data collection for two reference years 2013 and 2014 have been completed so far and results from the survey for 2015 is now on the way.

1.1. BACKGROUND FOR THE SURVEY

The survey has been set up on the request of and is mainly financed by the Ministry of Environment and Food and carried out by Statistics Denmark as part of the programme of official statistics. Statistics Denmark was contacted in 2012 and the survey

¹ Danish Government (2012): Government's Organic Action Plan 2020.

was developed from analyses of the possibilities followed by a pilot survey.

The request is based on a wish to be able to monitor progress in the public measures taken by the government to promote organic production and consumption. As such it serves the purpose of policy benchmarking. The monitoring system also serves to provide policy makers with a more complete picture of the Danish consume of organic products.

Since the 1990'ies organic food and farming policy has been based on the idea of involving more sales channels. For instance, the official organic actions plans I and II increasingly involved the public kitchens as an important part due to their obvious advantages in terms of securing steady consumption and stability. The two action plans have been followed by the 'Organic Action plan 2020' adopted by the previous government in 2012. It calls for further transformation of public sector kitchens to organic food production and set ambitious goals for the share of organic foods in the public foodservice sector.

1.2. SCOPE OF THE SURVEY

In the context of POPP's foodservice, the survey measures the phenomena as the *sale of food and beverages – organic or conventional – from wholesalers to professional kitchens in restaurants, cafeterias, cafés, public institutions etc.* Thus, the study focuses on settings where food and beverages are served as part of a meal service as opposed to e.g. sale of ready meals in retail sale.

The system is set up to exclude sales to other wholesalers or abroad as well as sales to retail stores. 'Organic' is defined as certified food complying with the regulation of organic food and carrying the national eco brand – the "ø"-label. The survey covers the sales to the private sector food service as well as the public sector. A kitchen is considered to belong to the public sector if the food is served

in a public sector institution, even if the daily operation is outsourced to a private company – a catering subcontractor.

1.3. SURVEY POPULATION

The survey is a census of foodservice wholesalers with at least 20 million DKK² in turnover. This model was chosen since requesting this information from the purchasers directly would be costly due to the large number of professional kitchens served as illustrated in figure 1 that shows the supply chain of food service. The figure illustrates the fact that the procurement does not take place directly between the foods service units but is regulated by agreements and contract that is negotiated between procurement officials in the public and the suppliers. The survey population is estimated by Statistics Denmark to cover 90-95% of the total sales to foodservice.

FIGURE 1 THE DUAL NATURE OF THE FOODSERVICE DELIVERY CHAIN



The population was mainly identified in Statistic Denmark's business register by industry code (NACE) and turnover. Enterprises with an irrelevant industry code was still included if they were known to operate in the foodservice sector. This population of food wholesalers was subsequently merged with authorities' register of organic food establishments.

Wholesales of organic foodservice are included annually in the survey. The cyclic nature of the monitoring system then requests that all foodservice wholesalers are included every 3rd - 5th year in order to estimate the total sales to foodservice.

² Danish Krone (DKK) is the official currency of Denmark. 1 DKK = 0,135 Euro.

TABLE 1 – SURVEY SCHEME.

POPULATION GROUP	INCLUSION	APPROX. NO. OF ENTERPRISES
Foodservice wholesalers	every 3rd-5th year	663 in 2013
Foodservice wholesalers with organic goods	every year	202 in 2014
Food wholesalers without sale to foodservice	Not included	n.a.

It is not possible to delimit the population by industry code alone. Filters on activity in the questionnaire (sales to foodservice, sales to organic foodservice) are thus used to exclude irrelevant enterprises during the data collection.

Due to the special status of Statistics Denmark, participation in the survey is per definition mandatory and data on individual companies are treated according to Statistic Denmark's Data Confidentiality Policy.

1.4. QUESTIONS

The following main questions were included in the survey: Overall sales to food service and sales of organic food service (filter-questions and value). The sales of organic foodservice were further broken down by a limited number of goods and customer groups. The food was categorized according to the following groups: Grocery, Dairy/eggs, Fruits/vegetables, Meat/poultry/fish and Frozen goods. To be able to monitor progress in different segments of the foodservice sector the survey distinguished between the following groups: Canteens for government employees, Canteens for private workplace employees, hotels/restaurants/cafes, institutional foodservice and other³.

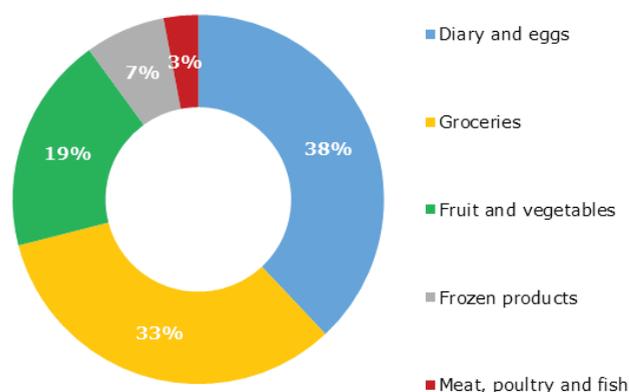
2. RESULTS

2.1. TOTAL MARKET

Total wholesales of organic food and beverages for foodservice accounted to 1.304

million DKK in 2014 (approximately 175 mill. EUR). This is a marked increase of 33% compared to 2013. Data show important characteristics about food product type when broken down as illustrated in figure 2. Dairy products and eggs accounted for as much as 38% of the total sales of organic products (STATISTICS DENMARK, 2015). The sale by product groups was found somewhat similar to retail sale of organic goods, with a high representation of dairy products and fruit/vegetables (see further comparison in 3.4.).

FIGURE 2 – SALE OF ORGANIC GOODS TO FOODSERVICE – BY PRODUCT GROUPS. 2014



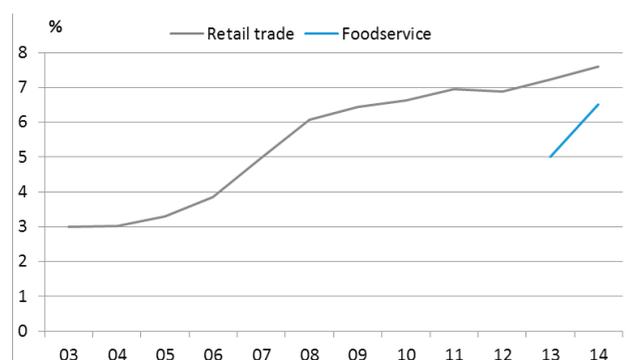
Source: Statistics Denmark

2.2. INCREASE IN MARKET

The out of home food sector is seriously challenging the lead position of the retail sector in terms of driving the organic food consumption wave. As illustrated in figure 3 organic products accounted for 6.5% of the total sales of food products to the foodservice of 19.5 billion DKK in 2014 compared to 5% in 2013. In the retail sector, the corresponding market share of organic goods in the sales was 7.6%, i.e. still higher than in sales to food service (STATISTICS DENMARK, 2015b). Unless the retail trade experiences the same growth, the foodservice sector can be expected to overtake concerning organic share of total sales.

³ The questionnaire is available (in Danish) at www.dst.dk/food.

FIGURE 3 – ORGANIC MARKET SHARE IN RETAIL COMPARED TO FOOD SERVICE



Source: Statistics Denmark

The increase in sales of organic products to the food service is likely due to three factors (STATISTICS DENMARK, 2015c):

1. An increasing number of outlets serving organic food. E.g. the number of kitchens with the organic out of home eating label “Økologisk spisemærke” increased by more than 50 % from 2014-15.

2. Increased procurement by eateries that already use organic foods.

3. A general increase in total sales to food service (7.6% from 2013-14) which contributed to the sale of both organic and conventional products.

Foodservice vendors with organic products in their range of goods represent more than 90% of total sales to food service, as the largest wholesalers almost without exception sell organic products (STATISTICS DENMARK, 2015).

TABLE 2 – SALE OF ORGANIC FOOD IN FOODSERVICE – BY PRODUCT GROUPS

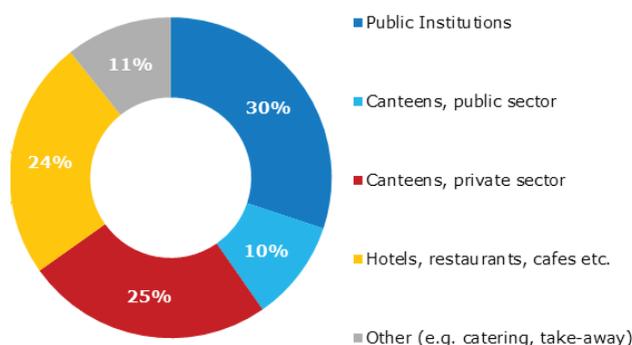
Product category	2013 millions DKK *	2014 millions DKK *	2013 per cent	2014 per cent
Total	981.0	1304.3	100.0	100.0
Dairy	398.0	497.0	40.6	38.1
Colonial	303.0	436.3	30.9	33.5
Fruit and vegetables	178.1	241.9	18.2	18.5
Frost	83.3	89.3	8.5	6.8
Meat, poultry and fish	18.5	39.8	1.9	3.0
Fruit and vegetables including frost	208.8	257.3	21.3	19.7
Meat, poultry and fish including frost	31.2	67.4	3.2	5.2

* 1 DKK = ca. 7.46 Euro in both years. Source: Statistics Denmark

2.3. MARKET BY CUSTOMER GROUPS

Public institutions accounted for 30% of the sales of organic products to the food service and canteens in government accounted for another 10%. Altogether, the public sector's share of the market is around 40%. In 2013, the general government sector's share was 41%, i.e. approximately the same proportions as in 2014. The growth in organic food service in the private sector was therefore in line with the public sector (STATISTICS DENMARK, 2015; 2015c).

FIGURE 4 – SALE OF ORGANIC GOODS TO FOODSERVICE – BY CUSTOMER GROUPS. 2014



Source: Statistics Denmark

TABLE 3 – SALE OF ORGANIC FOOD— ACCORDING TO CONSUMER GROUPS

CONSUMER GROUP	2013 MILLIONS DKK*1	2014 MILLIONS DKK*1	2013 PCT.	2014 PCT.
Total	981.0	1.304.3	100.0	100.0
Public institutions	324.8	392.5	33.1	30.1
Canteens at public work places	76.4	133.7	7.8	10.2
Canteens at private work places	320.5	324.0	32.7	24.8
Hotels, restaurants, cafés etc.	196.6	314.9	20.0	24.1
Other (e.g. diner transportable, take-away)	62.6	139.3	6.4	10.7
Total – Public sector	401.3	526.2	40.9	40.3
Total – Private sector	579.7	778.1	59.1	59.7

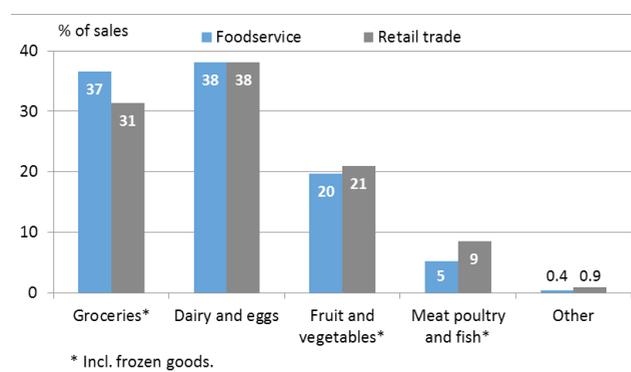
Consumer groups are defined as the institution, company, etc. where the food is served. The total sale is more valid than the sale distributed by consumer groups.

* 1 DKK = ca. 7.46 Euro in both years. Source: Statistics Denmark

2.4. COMPARISON OF COMMODITY GROUPS WITH RETAIL TRADE AND A LOOK AT PRICES

The sale of organic products in foodservice sector was largely similar to the sale of organic product in the retail (supermarkets, groceries and department stores), with regard to the share of each product category. However, there are some exceptions to this: Groceries had a larger share in the foodservice sector in 2014. Opposite to this, the sale of meat, poultry and fish was 9% in the retail sales, but only 5% in the foodservice sector. In both cases organic meat, poultry and fish has a much lower importance compared to *retail sales including conventional goods*, where the share was 19% of total food sales⁴.

FIGURE 5 – SALES BY COMMODITY GROUPS – COMPARED TO RETAIL TRADE. 2014



Source: Statistics Denmark,

*Sale of organic food to foodservice' and 'Retail turnover of organic food' Results first published in this article. The above grouping differs from the regular grouping in the two surveys.

Organic food is as general rule more expensive than conventional food in general (table 4). Concerning meat, the relative difference between conventional and organic price/kg tend to be higher compared to other products and measured in absolute value, the difference is even higher.

TABLE 4 – MEAN PRICES OF SELECTED CONVENTIONAL AND ORGANIC PRODUCTS. 2014.

Product	Quantity	Conventional	Organic	Difference	
				DKK	%
Carrots	1 kg	7.06	10.94	3.88	55
Potatoes	1 kg	9.56	12.84	3.27	34
Onions	1 kg	7.95	16.73	8.78	110
Full-cream milk	1 l	7.98	10.52	2.55	32
Egg, size L	10 pcs	23.19	29.96	6.78	29
Ground beef, max. 12% fat	1 kg	63.51	97.82	34.31	54
Ground beef, max. 15% fat	1 kg	55.74	102.89	47.15	85

Source: Statistics Denmark, Consumer price index.

Such price differences are likely to influence the composition of the demand. It is thus relatively expensive to shift from conventional to organic meat consumption compared to dairy and vegetables.

When the share of organic meat of all organic food is lower in sales to foodservice than in retail sales, the reason can be that the professional kitchens are on a more fixed budget than private households. The intensity of organic consume in households is positively correlated with high education and incomes (STATISTICS DENMARK, 2016). Households with intensive organic consumption may thus be in a better position to make such shift.

A public sector canteen though, will most often have to shift to organic production under an unchanged budget. If e.g. a public sector canteen wants to achieve the official organic food label “bronze”, the required share of min. 30% organic goods can be achieved by weight measures. Goods with a low price/kg, like milk and vegetables, are the cheapest way to get this level of organic certification.

Another factor than prices is the supply of organic food. For instance, groceries generally contain a large number of items,

4 Calculation based on Statistics Denmark, 2012.

where smaller retail shops do not always carry an ecological variant. In the case of full-assortment foodservice suppliers, a broad range of organic goods are available which may explain the higher share of organic groceries in sales to foodservice compared to retail sales.

3. DISCUSSION

3.1. PUBLIC FOOD AS DRIVER OF ORGANIC FOOD AND FARMING POLICY

As the results show the public sector in Denmark has become an important part of government organic food and farming policy. The Organic 2020 policy has been adopted at national level and call for action to be taken at the regional and municipal government levels to increase the share of organic foods in public institutional and canteen food service. The policy in addition recommends private sector foodservice to increase the organic share of their procurement. The policy mix applied in the Danish case consist of a labelling system, a monitoring system for sales volumes and a foodservice workers training program.

The labelling system Gold/Silver/Bronze is a custom built labelling scheme that rests on the rules in EU regulation on organic foods and its Danish translation – the “Ø label”. It is an official certification system, set up by The Ministry of Environment and Food. The Gold/Silver/Bronze label is an adaption of the product based Ø-label to the service based special circumstances of foodservice. Since food service per definition is characterised by the serving of ready made meals then a front of-package labelling scheme as the Ø label is of little use. The Gold/Silver/Bronze label as a result is therefore labelling the procurement interface and not the eating interface in the sense that it measures the amount of ø labelled produce bought.

3.2 EXPERIENCE WITH THE GOLD/SILVER/BRONZE LABEL

The Gold/Silver/Bronze label scheme has shownt to be readily usable and useful for

foodservice operators in daily practice. At the same time it has contributed to a “common good” awareness and recognition of public food since local governments can now use the achievement of their goals in a vary visible and tangible manner. Public sector food has traditionally suffered from an image of a “mundane activity in prosaic settings” (SONNINO; MORGAN, 2007) but with increasing support for the importance of stable demands as part of organic food and farming policy the sector has experienced a new recognition as service provider. This is partly due to the fact a number of spin-offs and ramifications have been shown to follow from organic conversion (HE; MIKKELSEN, 2014). In addition the efforts to develop and implement foodservice worker training programs to accompany the POPP’s has created a new interest in the arts and crafts of traditional foodservice. The succes of the training programs in bringing back cooking skills and tradtional foodservice virtues in kitchens can be assumed to explain much of the succes of POPP implementation and is believed to have been able to create a balance between top down and bottom up policy implementation (MIKKELSEN, 2015).

3.3 OVERALL EXPERIENCE

The experiences from the first round of data collection program for Public Organic Procurement, that was recently implemented, show that keeping publicity and attention to this issues plays an important role in settings norms for practices in the out of home eating sector.

3.4. RELIABILITY OF SURVEY DATA

The setting up and maintenance of the monitoring system has pointed to a number of issues related to reliability of the data. First of all, the data set represents almost a total count resulting in a very little statistical uncertainty. The issue of unit item non-response is negligible as the survey of Statistics Denmark is

mandatory. Through the survey methods the respondent's burden is generally kept down. However, for some respondents the number of questions as well as the scope of the questions is an issue.

Only recently organic goods have become a significant factor for many food service suppliers and the experiences of Statistics Denmark with the methodology points to the fact that there is a lack of central registration of eco-turnover. For some suppliers sales to foodservice is not separated from other kind of sales (e.g. to retail sector). Another issue is that the breakdown of food categories in the questionnaire often will differ from various categories in the supplier's systems.

Outside lack of registration, grey areas between sales to foodservice and other sales exists. Most are addressed in the questionnaire and supplied guide, but may anyhow challenge the respondents.

Finally, some enterprises do not exactly know their turnover by customer groups. In the survey, a kitchen is considered public sector if the food is served in a public sector institution, even if the daily operation is outsourced to a private company. However, for some suppliers this distinction between public and private sector is not important or visible in their systems.

In all the above cases, Statistics Denmark accepts some degree of discretion from the respondents. As a result, the total organic revenue should be considered more certain than breakdown by product or customer groups.

3.5. RELEVANCE OF SURVEY DATA

The results from the survey behind the POPP monitoring have been used in analyses and press releases by the Ministry of Environment and Food. Also, industry associations such as "Organic Denmark" and "Danish Agriculture and Food Council" have used the figures in several press releases. The first two dis-

seminations have received extensive coverage in the media.

The survey measures sales to organic foodservice with a breakdown of commodity groups and customer groups, respectively. However, the total foodservice sales are not divided by goods or customers. Such data would have interest for the users in order to specify the market, but has so far been left out of the questionnaire for consideration of the response burden.

3.6. CHOISE OF METRICS

As described, the main tool for the data collection for Public Organic Procurement is a *questionnaire based survey, targeting food suppliers*. Some alternatives have been considered, but have been rejected due to resource restrictions, response burden or other practical barriers.

The most obvious alternative is to *survey the professional kitchens directly* instead of asking the food suppliers. The main reason for choosing the suppliers though has been resource considerations: the sheer numbers of public (or private) professional kitchens exceeds the number of suppliers many times, making such a survey more expensive.

Among food suppliers it possible to make a total count (with a threshold of a minimum turnover), however only a sample would be possible for a survey of kitchens. It would furthermore be difficult to raise the results to the total population due to lack of available raising factors.

Also considerations of reducing response burden – which is a special issue for Statistics Denmark – point towards the smaller survey. Another burden neutral alternative – exploiting register data on public sector procurement e.g. from accounts – is not useful as they are not organized or specified sufficiently to complement with knowledge of foodservice activities.

An alternative source to statistics comes in fact from the previously mentioned *labelling*

system Gold/Silver/Bronze for foodservice. The rationale of the system is to promote organic food in the individual kitchen. It is possible though to make some statistics on the number of kitchens granted the Gold, Silver or Bronze label, that can supplement the survey of organic food suppliers. The labelling data cannot, however, be linked with size of the kitchens, the purchase or consumption. The labelling data figures can therefore not be used to measure the volume of the development or the organic food purchased and the data do not cover kitchens that choose to market organic foodservice without using this label.

For the setting up of metrics as a part of a policy mix to promote organic foods in the public it should be noted that this could be done in more ways. For instance, it needs to be decided who should be collecting the data e.g. between a private company or a national statistical institution. In the case of Denmark, the Statistics Denmark (SD) as the traditional supplier of statistical insight already has the infrastructure and the capacity to carry out any kind of survey. Moreover, using an *official statistical bureau for the data collection* offer some additional benefits. These are related to the fact that SD are able to use business register already available in order to establish the survey population (units, turnover). In addition, SD can due to its special status make participation in the survey mandatory. This adds to the status of the published statistics since SD has an established record of being an official and independent statistical data provider.

CONCLUSIONS

As can be seen from the data, organic food in the public sector has increased considerably from 2013-2014. It is presumably a result of the targeted public policies in that sector. The supplier sourced data on sales volumes have proven to be a convenient way of documenting the success in implementing public organic procurement policy.

The organic procurement agenda seem to have been able to turn the focus from the

traditional perception of public food as being of poor quality to a perception of the public plate as a supporter of a sustainable diet agenda. The monitoring and release of data on the progress in many cases seem to contribute to raising the image of public food and to enabling the recognition of the value creation of the foodservice profession. The broad support that POPPs' enjoy in the population seems to be contributing to the creation of that image. The fact that public food systems to a large extent is driven by written operational procedures, policies and strategies makes transition a challenging and long term process. However, since the government strategies have been around for more than two decades the public procurement channel as a result have had the time to establish itself as a stable and important sales channel of its own. The inbuilt inertia of public procurement that is rooted in the contractual and paper based routines of the public now seems to show its first results where the increase in organic share has become institutionalised.

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