

# Sustainable Development & Food

Reinventing the school meal through public procurement practices:  
The case of *Malmö*

CAROLINA MENDOZA VILLANEDA

**MASTER'S THESIS**

Packaging Logistics  
Lund University



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Carolina Itzel Mendoza Villaneda



**LUND**  
UNIVERSITY

## Sustainable Development & Food

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# Abstract

- Title:** Sustainable Development & Food. Reinventing the school meal through public procurement practices. The case of Malmö
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- Supervisor:** Annika Olsson, Professor at Packaging Logistics, Department of Design Sciences, Faculty of Engineering, Lund University
- Issue of study:** The importance of food on achieving sustainability has been a topic increasingly moved to the forefront of the international debate. Thus, governments from around the globe have developed and adopted comprehensive food policies aiming at sustainable development. As part of this, public procurement has been identified as a powerful tool leveraging government's purchasing power and holding an interesting potential to re-shape the food markets. Simultaneously, the school meals program represents the ultimate arena where the addition of efforts striving for sustainable food systems has to find its culmination since it involves the wellbeing of the most vulnerable sector of the population. For this reason, it becomes important to understand the prevalent conditions determining the procurement decisions of school's catering personnel regarding sustainable sound foodstuffs.
- Purpose:** The purpose of this thesis is to do an exploratory research of the preschool catering sector in Malmö in order to identify the conditions shaping their procurement decisions with a special focus on organic foodstuffs, resulting from the enactment of a policy for sustainable development and food on 2010. The findings of this investigation aim at providing a deeper understanding of the key factors influencing the purchasing behavior of the cooking staff and how this information can be further employed to motivate the sector towards the attainment of the policy goals.
- Method:** A desktop literature review on the topic, basic statistics and qualitative interviews with involved participants were collected in order to gain deeper insight on the case of Malmö. The information was then analyzed using a modified version of the GPP Hurdle Analysis tool developed by Günther & Scheibe (2006).

**Conclusions:** It was identified that food indeed is in itself a powerful tool persistently involved on the core intrinsic concepts of sustainable development. Simultaneously, coupling the abilities of public caterers with sustainability concerns and applying those on the fertile arena of preschools via the meals program holds a promise that turns out to be more than appealing. If sustainable public catering efforts are applied together with a strategy to educate the youth so to raise their awareness and instill a mentality of sustainability through food, the cycle will be closed from both ends of supply and demand. Even when it seems unlikely that a universally valid strategy for overcoming obstacles for sustainable procurement on the catering sector can be developed, individual strategies can be designed as long as the proper information is made available and motivation is stirred adequately.

**Key words:** Sustainable food, public procurement, school meals, public catering, Sweden.

# Executive Summary

## Feeding a sustainable future

Food plays a very vital role in the life of every human being. Simultaneously, human expansion and urbanization are rapid happening phenomena; as a result, contemporary and future urban food supply has to be reassessed in order to make sure food provision on urban settlements guarantees a fair access to healthy and nutritious food products to all its dwellers, at the same time as fostering sustainable development processes. Fortunately, a number of initiatives to confront these issues have already been formulated and they are characterized for having a holistic vision of sustainability, stressing equal importance on the different dimensions conforming the concept. As part of these innovative urban food strategies, the importance of municipalities as food policy makers is mounting; recognizing the potential of reevaluating public food procurement as a mean to establish new relations between the public sector -a very powerful buyer and consumer of food products- and the influence it has on shaping the future of urban food systems. Most importantly, the resounding interest that societies have paid to food on the past couple of years has finally reached one interesting realm, fundamental in the attainment of a sustainable future represented on the most vulnerable sector of society: the school meals program (Morgan, 2006).

## The Case of Malmö

The city of Malmö, the third largest urban hub located in southern Sweden, has succeeded on recognizing the importance of food on achieving sustainability enacting in 2010 a Policy for Sustainable Development and Food that aims at addressing the environmental impacts due to food related activities in addition to instilling in its citizens food consumption habits that consider a whole life costing evaluation of their actions instead of the solely price approach that currently prevails. Two main clear goals to be achieved by 2020 guide this policy: the reduction of 40% of the greenhouse gas emissions due to food related activities (considering 2002 levels) and 100% certified organic food served in the City of Malmö. The Environment Department of the municipality, on response to the scope of its endeavors, is in charge of monitoring the progress of the city on attaining the policy goals. The preschools institutions of Malmö are in fact one of the main arenas of involvement for the Environment Department in this regard due to the different inherent characteristics of Malmö's preschool catering sector demanding greater attention and efforts from pertinent authorities. Indeed, the

Environment Department coordinates activities in order to increase awareness, and in collaboration with different actors involved on the preschool catering service of the city, communicates information striving at inspiring the sector with sustainability knowledge pertinent to the span of their responsibilities.

## Objectives

The overarching objective of this research is to provide a general view of the sustainable food procurement practices on the Swedish public sector. The case of the city of Malmö will be used as a framework offering a focus for the research, in this case, the preschool catering sector and the target of 100% organic foods, identifying key actions, focusing on opportunities and constraints that are defining these institutions' purchase actions. A parallel aim consists on providing the Environment Department with valuable information in order to develop strategies to overcome obstacles faced by the preschool catering sector scaling up the policy results. In order to achieve this, it is basic to identify and understand the various factors affecting the purchasing choices of the final decision makers when it comes to public procurement. Accordingly, it is important to describe as closely as possible the activities the partakers follow during the purchasing process, while aiming at answering the following underlying question:

*What are the factors defining the ultimate purchasing decision of public food procurers as regards whether or not buying organic foodstuffs?*

The results can hopefully reveal how Malmö preschools can increase the level of implementing sustainability considerations during their food procurement process in order to develop best practice towards a higher level of organic products purchased.

## Methodology

First, an exhaustive desktop literature review was conducted. This newly acquired knowledge allowed for the formulation of different questions for qualitative semi-structured interviews to happen following. To gain complementary insights that allow for a systemic vision of the process, the interview respondents included several public servers at different stages of procurement with activities potentially influencing the final results of the purchasing process. This comprised Malmö City Environment Department staff, Environment Coordinators of different city districts, Head teachers and preschool's catering personnel.

The sampling methodology was based on the statistical results available through the Environment Department reports, showing the district's performance as regards organic foodstuffs purchased on previous years that allow for the identification of the districts with better results so as rocketing ones. Based mainly on this information, a second approach to Environmental Coordinators on different city districts allowed for a closer

view of the situation, and served as a bridge for contacting cooks and preschool personnel. Therefore, the interviews show the insights of procurement participants from different perspectives; however, the study does not denote a statistically representative analysis of the entire preschool catering sector in Malmö as such, but rather provides a deeper understanding of specific conditions of outstanding examples.

The analytical tool used is largely based on the Hurdle Analysis Method developed by Gunther & Scheibe (2006) from Dresden University, an instrument designed for municipalities to be able to identify and relieve by themselves the hurdles encountered during the implementation of Green Public Procurement strategies.

## Results & Discussion

In response to the research question the following was encountered:

Personal motivation of the individual in charge of procurement is the main determinant of purchasing results. With this in mind, goal redesign of the preschool catering sector can be motivated by the next findings:

- A dominant concern of the health implications related to the food provided to the kids.
- Social pressures in the form of opinions from co-workers.
- The recognition of their jobs by the society.

The extra price hurdle associated with purchasing organic produce has to be discredited. Three alternatives to do so are presented:

- Publicize successful cases.
- Knowing the budget.
- Recognition of professional skills on the caterers.

Upper management's, named the preschool head, support and attitudes towards organic are enablers; yet not determinants.

Lack of representation from an appointed leader is discouraging. More than a current defining factor of the procurement decisions, this is rather seen as an opportunity to further boost the aforementioned strategies. Thus, selecting a head of the sector can allow for certain alternatives identified during the research to be put in practice comprehensively:

- The creation of a network can result on improved communication mechanisms, common base and best practice share.

These findings responded from different angles the initial research queries. Over the construction of the findings the influence of the staff status as a motivator of change was unquestionable. Finally, even when it seems unlikely that a universally valid strategy for overcoming the identified hurdles can be developed, individual strategies can be designed as long as the proper information is made available and motivation is stirred adequately.

## Conclusions & Further research

The mere fact that the phenomenon under research constitutes an emerging transformation of an existing regime of practices, an ongoing and dynamic policy intervention, represents an opportunity for improvement per-se. The decisive global reorganization about to happen at the municipal level has already succeeded in recognizing the relevance of food in public institutions assigning an entity for the supervision of such related activities: the department for Physical Environment. This has the potential of shuddering even more the microcosms of preschools, and in order to do so with a deeper understanding of the current situation, this descriptive examination can be useful as a starting point for further research regarding the implications of the implementation of this new department. The findings presented here could be studied with the purpose of determining effective further strategies in order to achieve sustainable awareness and increased commitment of the preschool catering sector at least.

Besides, the evaluation of the actual carbon reduction resulting from the change in procurement practices is definitely worth exploring as a tangible result that can steer further motivation. Additional further research regarding the social implications of sustainability on the procurement practices of caterers can be an interesting completing dimension of the process, since this subject was barely approached and still constitutes a TBL sustainability component. Last but not least, the actual potential and results of the pedagogic meals as regards children's eating habits and potential future consumption behaviors will represent the most interesting and purposeful study.

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I would like to express my thankfulness to my supervisor Dr. Annika Olsson for accompanying me throughout this journey, backing my ideas and trusting on my capacity to carry out this topic no matter how complex or challenging. Furthermore, this paper will not have happened without the support and enthusiasm of Gunilla Andersson from the Environment Department of the City of Malmö, thank you for open me the doors so willingly and letting me explore this captivating world. Additional thanks to all the fascinating Swedish people that provided their time and insights for this research.

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*Para Laura y Roberto, mis padres*

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# Sustainable Development & *Food*

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*“If you look back at urban history, you realize that the dilemmas we face today are nothing new. Their scale may be unprecedented, but people have been puzzling over the question of how to build equitable, workable, sustainable communities for about as long as cities have existed. **I believe food is the key to thinking about these issues** – the obvious answer that has been staring at us all along, only it was too big to see”*

*HUNGRY CITY, Carolyn Steel 2009*



# Introduction

## Feeding a sustainable future

This chapter introduces the subject under study and explains why it is a relevant issue from a sustainable development and food perspective. Furthermore, the research motivations are described along with the research scope, the primary objective and sub questions of this thesis.

Food plays a very vital role in the life of every human being. It is the source of energy and nutrients we need in order to carry out our daily activities and it is immediately related to our mere physical existence and survival. At the same time, food represents a social experience providing a pleasant opportunity to interact while defining culture, communities and nations as well as giving us a sense of identity: “We are what We eat”. Food has also tremendous political and socioeconomic implications; throughout history it has acted as a catalyst of social transformation, public organization, industrial development and economic expansion among many others (Standage, 2009).

Simultaneously, human expansion and urbanization are rapid happening phenomena, it is expected that by 2050, 6.5 of the projected 9 billion people on earth will be living in urban areas (Wiskerke, 2007). As a result, contemporary and future urban food supply has to be reassessed in order to make sure food provision on urban settlements guarantees a fair access to healthy and nutritious food products to all its dwellers, at the same time as fostering sustainable development processes.

On the last decade, many cities and metropolitan regions around the globe have confronted this problem, and the answers emerge usually in the form of integrated food policies. This realization is important because the lack of adequate understanding of the significance of food on human development has caused the risen of a number of health, economic, social and environmental issues, compromising the wellbeing of future generations and deteriorating the quality of life of the existing one. In other words, society’s ability to fully recognize the importance and consequences of food systems is strongly linked to its degree of sustainable development; since consciously or not, our cities have been designed to fit and connect the food related activities needed to supply dwellers (Steel, 2009). Moreover, a complete disconnection of producers and consumers has caused an alienation of urban inhabitants from the food supplying processes, which encourages the idea of food policy as a non-urban strategy, delaying research on the role of food in sustainable urban development and restricting the potential of cities on food systems’ innovation (Wiskerke, 2009).

Fortunately, a number of initiatives to confront these issues have already been formulated and they are characterized for having a holistic vision of sustainability, stressing equal importance on the different dimensions conforming the concept. As part of these innovative urban food strategies, the importance of municipalities as food policy makers is mounting; recognizing the potential of reevaluating public food procurement as a mean to establish new relations between the public sector -a very powerful buyer and consumer of food products- and the influence it has on shaping the future of urban food systems. Most importantly, the resounding interest that societies have paid to food on the past couple of years has finally reached one interesting realm, fundamental in the attainment of a sustainable future represented on the most vulnerable sector of society: the school meals program (Morgan, 2006).

This new food system conception no longer accepts the externalization of environment, social and even economic costs (Morgan et al., 2006); therefore, in order to reach the full potential of urban food strategies the collaboration towards reaching common goals between the public sector servers, civil society, and the various actors of the food supply chain, is crucial. In this sense, the school meals program offers a suitable opportunity to analyze the interactions of such stakeholders towards reaching a sustainable community.

### **Research Motivations, Objectives and Focus**

As part of this new food system conception, the city of Malmö, the third largest urban hub located in southern Sweden, has succeeded on recognizing the importance of food on achieving sustainability. Therefore, the Municipality enacted in 2010 a Policy for Sustainable Development and Food that aims at addressing the environmental impacts due to food related activities in addition to instilling in its citizens food consumption habits that consider a whole life costing evaluation of their actions instead of the solely price approach that currently prevails. Two main clear goals to be achieved by 2020 guide this policy: the reduction of 40% of the greenhouse gas emissions due to food related activities (considering 2002 levels) and 100% certified organic food served in the City of Malmö.

The investigation of contemporary strategies adopted by cities leading on the sustainability issue internationally, regarding specifically methods and approaches undertaken to meet the challenges related to current and future urban food systems, was the initial driver that found a remarkable opportunity to be explored on the city of Malmö's aforementioned policy. As the researcher interest builds up around the subject of sustainable development and its interconnections with urban food, particularly regarding the role that the public sector plays when addressing these issues, taking advantage of the case of Malmö was a more than convenient option. An exploratory research of the current implementation conditions of the Policy for Sustainable Development and Food is undertaken in order to gain knowledge on the topic of the potentials of food policy and the actual translation from concepts to a pragmatic implementation, specially considering the attainment of the 100% organic foods procured by the city.

This research is carried out on collaboration with the Environment Department of the City of Malmö, which on response to the scope of its endeavors, is in charge of monitoring the progress of the municipality on attaining the policy goals. The preschool institutions of Malmö are in fact one of the main arenas of involvement for the Environment Department in this regard due to the different inherent characteristics of Malmö's preschool catering sector demanding greater attention and efforts from pertinent authorities. Indeed, the Environment Department coordinates activities in order to increase awareness, and in collaboration with different actors involved on the preschool catering service of the city, communicates information striving at inspiring the sector with sustainability knowledge pertinent to the span of their responsibilities.

As a result of this situation, it was decided that the preschool sector represented the most convenient field of research for both parts, providing an interesting and comprehensive ground, encompassing core characteristics related to sustainable development and food. Certainly, the Swedish preschool scenario offers an almost unique and interesting research opportunity regarding sustainable development and public food for two reasons:

- Provision of free school meals is nowadays a rare phenomenon that has recently stirred widespread interest (Lehtinen, 2011). As part of the welfare system, school lunches are a universal right for every school-age children in Sweden; and
- Sweden is considered to be at the forefront when it comes to sustainable development. According to the Global Green Economic Index 2012, Sweden is among the top 10 countries with the best environmental performance.

Thus, the overarching objective of this thesis is to provide a general view of the sustainable food procurement practices on the Swedish public sector. The case of the city of Malmö will be used as a framework offering a focus for the research, in this case, the preschool catering sector and the target of 100% organic foods, identifying key actions, focusing on opportunities and constraints that are defining these institutions' purchase actions. As a result, this thesis aims at complementing the current discussion on the influence that the public sector has on sustainable development specifically through food procurement policies applied on the most basic of its practices: the decisions of preschool caterers concerning purchasing organic food products. A parallel aim consists on providing the Environment Department with valuable information in order to develop strategies to overcome obstacles faced by the preschool catering sector scaling up the policy results.

Due to the ambiguity that the sustainability term evokes, the concept of organic foods has been selected as the indicator of sustainable procurement since the percentage of organic foods has generally been internationally accepted as an unofficial measure of sustainability on an applied level. Even when fair trade products are also measured and used as indicators in some cases, this has happened due to the fact that a vast majority of this product category is also encountered to be organic certified, for this reason, a social approach to sustainable development has not been chosen as the central line of research and evaluation, thought is still considered so as the economic considerations involved; recognizing the potential that public procurement has as an integrating tool of social, economical and environmental sustainable considerations.

## Research Questions

Public procurement can be described as centrally negotiated legal processes that are guided by political decision and practically implemented by various local purchasers (Persson, 2012). The EU has identified the greening of public procurement as a key policy instrument in achieving more sustainable production and consumption (Council of European Union, 2006); likewise, economies now are using school food reforms as a tool to develop new attitudes towards the use of ‘quality’ food which is generally equated with fresh, locally produced food (Morgan & Sonnino, 2008). Both notions can translate in an enormous potential of public procurement in driving behavioral change in economy and society towards a more sustainable future.

In order to achieve this, it is basic to identify and understand the various factors affecting the purchasing choices of the final decision makers when it comes to public procurement. Accordingly, it is important to describe as closely as possible the activities the partakers follow during the purchasing process, while aiming at answering the following underlying question:

*What are the factors defining the ultimate purchasing decision of public food procurers as regards whether or not buying organic foodstuffs?*

The results can hopefully reveal how Malmö preschools can increase the level of implementing sustainability considerations during their food procurement process in order to develop best practice towards a higher level of organic products purchased. Best practice refers to a well-defined method that contributes to a successful implementation (Rouse, 2007).

In order to help find the desired information, a series of hypothesis have been designed based on literature, interviews and Environmental Department’s reports; these propositions urge to the identification of the main driving forces affecting the purchasers decisions and are following presented:

- The most “socially appreciated” the position of the person in charge of food procurement, the highest the amount of organic products purchased.
- The longer the staff has been carrying out procurement activities, the more resilient to buy organic products.
- The more training the staff has taken regarding food and sustainability, the highest level of organic purchase.
- The budget allotted for school meals represents a strong barrier for personnel in charge of food procurement.
- The cooking facilities are an important consideration when it comes to choose organic products.
- The availability of organic products is not sufficient to satisfy the requirements of the districts.
- Implementing a procurement control process will help increase the amount of organic foods purchased at the municipality.

# Preschool Meals in *Malmö*

## Case Background

The purpose of this chapter is to give an introductory overview of the situation under study, with the aim of providing sufficient and solid contextual knowledge so to facilitate the analysis and understanding of the issues surrounding the decision making process of the characters involved on the organic food procurement for the preschool meals program in Malmö city.

### The city of Malmö

Located in the southwestern coast of Sweden directly across from Copenhagen, (Fig. 1), Malmö is the third largest urban hub of the country and is considered the capital of its region, Skåne. With around 300,000 inhabitants from about 170 different countries (as of May 2011), the city's multicultural population has been growing in later years and is expected to keep this trend in the future. As an introductory statement, the city was considered by Grist Magazine<sup>1</sup> as a European Green Capital in 2007: 'one of the 15 greenest cities in the world'.



Fig. 1. Geographical location of Malmö

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<sup>1</sup> The nonprofit, independent, online magazine *Grist* ([www.grist.org](http://www.grist.org)) was founded in April 1999, and over the past years has developed the most recognizable voice in environmental journalism. In January 2004, *Grist* received *Utne's* Independent Press Award for Online Political Coverage.

This achievement was no coincidence, it happened as a result of a thought effort. During the last decades, Malmö has suffered a series of transformations in order to progressively lose its former industrial character so to allow for a municipality renowned as a knowledge hub. These projects have contributed to the enhancement of the citizens' quality of life, and the initiatives taken have awakened strong interest both nationally and locally. Two key leads embraced by the authorities that actually make possible, at the same time as boosting this evolution were:

- The establishment of Malmö University in 1998 that filled up the city with a considerably young population (the average age of the inhabitants is 36 years old). Needless to say that the huge change in the demographic composition of the city is a major defining factor of the character shift, the newcomers are early adapters of new and positive changes.
- The construction of the Öresund Bridge in 2000, which physically connects Malmö with Copenhagen and the rest of Europe allowing for a faster and more convenient commuting; making the city less isolated and more attractive to visitors and investors. As a result, the city is now open to a larger market that provides more possibilities for the citizens.

Moreover, the actions taken by the municipality, Malmö Stad or the city of Malmö, regarding sustainability issues have been vast and effective (two of the most notable ones are the sustainable thought neighborhood developments of Western Harbour Bo01 and Augustenborg) and as such, recognized and awarded on recent years, examples of such are:

- 2013 Green Uptown Magazine's Top 3 Greenest Cities in the World. Together with San Francisco and Reykjavik, Malmö has been acknowledged due to its extensive efforts for sustainable development, such as broad use of renewable energy, enactment of laws protecting the environment and general promotion of a green lifestyle.
- In 2012 the city was awarded with the 1<sup>st</sup> prize of the EC's Regio Star Awards for sustainable development efforts in disadvantaged areas. Also, the more than 400km of cycle paths made the City worth the prize as one of '2012's Best Cycling Communities'. Sustainable Procurement and Fair Trade considerations are as well on the agenda as a result of the efforts the municipality is embracing in order to promote a wider vision considering environmental and social demands during public negotiations.
- The Earth Hour Capital award by the WWF was given to Malmö in 2011 for its ambitious long-term efforts for a sustainable sound city.

Malmö is a leading signatory member of the Covenant of Mayors<sup>2</sup>, has actively participated on international networks such as FoodLinks<sup>3</sup> and ICLEI<sup>4</sup>, and is constantly

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<sup>2</sup> The Covenant of Mayors is the mainstream European movement involving local and regional authorities, voluntarily committing to increasing energy efficiency and use of renewable energy sources on their territories. For more visit: [http://www.covenantofmayors.eu/index\\_en.html](http://www.covenantofmayors.eu/index_en.html)

<sup>3</sup> Foodlinks is a collaborative project funded by the Seventh Framework Programme of the European Commission with the purpose of evaluating knowledge brokerage activities to promote sustainable food consumption and production: linking scientists, policymakers and civil society organizations. For more visit: <http://www.foodlinkscommunity.net/foodlinks-home.html?&L=0>

investing on urban sustainability, such as the Institute for Sustainable Urban Development. The municipalities' environmental goals are far more ambitious than those envisioned on international agreements.

Regarding procurement, Malmö has an annual volume of approximately five billion Euros. The potential this amount has over striving for social and environmental benefits for the municipality, both directly and as 'norm setter' for private organizations, has been recognized and applied by the city by adopting effective policies (McCrudden, 2004; Weiss and Thurbon, 2006).

### *City Administration*

Regarding its political administration, the City Council is the highest decision-making body of Malmö; it is composed of 61 members that are determined by general elections held every 4 years. The council members are a mix of the different political parties, currently it is controlled by the Social Democrats, the Left Party and the Green Party who have 31 seats together, out of a total 61, meaning they have majority when taking decisions. The City Executive Board is then chosen by the City Council and should be regarded as the official government body. Ilmar Reepalu, a Social Democrat himself, occupies the position equivalent as City Mayor, and along the rest of the executive board, he is in charge of 8 areas of activity (Fig. 2). Additionally, there are 14 specialist committees<sup>5</sup>, each with its own politician as chairman and at least with one department attached to each committee (Malmö Stad, 2010).

Part of these subdivisions is the Environment Department, who has the vision of a Sustainable Malmö by 2025. As such, the department is in charge of urban development, climate concerns, environment control, health and sustainable living issues along with food control and energy projects among many other endeavors related to the improvement of the environment in the city. Since Malmö is holding such a high position regarding sustainability in the global scene, the Environment Department has to work constantly in order to keep and enhance this title. Therefore, the Environmental Program of the city for 2020 envisions ambitious goals that are to be attained through general cooperation in order to lead the way in urban sustainable development. These goals are organized in 4 general areas of thought:

- Sweden's most climate friendly city. By 2020, the City of Malmö will be climate neutral and by 2030 the whole municipality will run on 100% renewable energy. A reduction of the GHG emissions of the city is considered here as well.
- Malmö – the city of the future. This ideal envisions the development of a city that offers a pleasant environment for its citizens, regarding environmental and social conditions.
- Sustainable use of natural resources. Self-explanatory, this section aims to

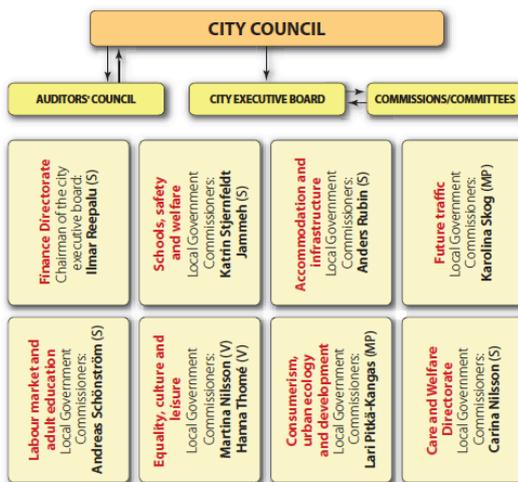
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<sup>4</sup> ICLEI - the global cities network is a powerful movement of 12 mega-cities, 100 super-cities & urban regions, 450 large cities, 450 small & medium-sized cities & towns in 84 countries dedicated to sustainable development. For more visit: <http://www.iclei.org/>

<sup>5</sup> The 14 committees: Recreation and Leisure Committee, Trust Committee, Equality, culture and leisure, City Executive Board, Environmental Committee, Auditors' Council, Services Committee, Social Resources Committee, City Planning Committee, City District Council, Technical Committee, Education Committee, Election Committee and Chief Guardian Committee

highlight the value of natural resources as important assets for achieving sustainable development.

- It's easy to do the right thing in Malmö. Part of the municipality's responsibilities are enclosed in this statement considering the obligation of the city to provide sustainable options of products and services to its citizens and business in order to promote and stimulate the types of activities committed with a better future for all. Sustainable public procurement is considered as a means to reach this specific aim.



**Fig. 2. The City of Malmö's Political Organization**

Though the first targets of the program are the civil servants and politicians of the city, it aspires to serve as an example and later influence for citizens, industries and the whole inhabitants of the Malmö in general.

The municipality is aware that collaborative work is necessary in order to adequately and promptly reach the objectives aspired, this is why the several projects involved on the achievement of such goals are to be carried out in cooperation of municipal authorities, organizations and companies alike.

One of the many pertinent entities working together with the Environment Department is the Department of Internal Services, which has to take care of the service operations along the municipality. Part of the subdivisions of this, is Malmö School Restaurants, the entity in charge of supplying with food to the schools and other public institutions in the city. The motto of the unit, 'more than a meal', reflects wide ambitions regarding the preparation of healthy, tasty and environmentally sound foods.

### *The 10 Districts*

As a mean of better organizing the city, and also in order to provide its citizens with a more reachable administrative authority, strengthening local democracy and encouraging civil participation, the municipality has been divided in 10 districts since 1996. Each district administration varies, but basically they're all in charge of working with a holistic view of the district's population and the services they require.

	<b>City Districts</b>	<b>Inhabitants</b>
<b>1</b>	Oxie	12300
<b>2</b>	Limhamn-Bukenflo	41500
<b>3</b>	Rosengård	23700
<b>4</b>	Kiseberg	14900
<b>5</b>	Husie	19800
<b>6</b>	Fosie	43400
<b>7</b>	Hyllie	32700
<b>8</b>	Södra Innerstaden	34500
<b>9</b>	Västra Innerstaden	32800
<b>10</b>	Centrum	45300
	<b>Total</b>	<b>300900</b>

**Table 1. Districts inhabitants**  
Rounded numbers as of May 2012

Therefore, among the districts' areas of involvement are the preschools and primary schools, the elderly and functionally impaired, the individuals and family welfare and the provision of leisure and culture. A City District Council is in charge of the management of such activities in correspondence with the Local Government Act.

This current administration, however, is about to get replaced by a new distribution of the city districts. Starting 1<sup>st</sup> of July this year, the number of districts is going to dwindle by half (Fig. 3.), the intention is to homogenize a faster the decision-making process and to improve the quality of the services provided to the citizens. Concomitantly, a new school organization is also considered to take place: the Preschool Board, the Primary Board and the Secondary and Adult Education committees have been created in order to improve cooperation and to implement more efficiently the decision that the councils take increasing expertise on policy makers. Regarding preschools, the new administration proposal considers two levels: pre-school level or the head teacher of each institution, and overall management level that establishes eight geographic nursery areas headed by department managers that should provide support and control the operations of the pertinent preschools.

This new administration is going to impact on the implementation strategies and the potential results of the multiple initiatives and policies governing Malmö. Despite the fact that the data used and gather for the purpose of this research only involves the current administration, it was considered appropriate to elaborate on this future matter since it will definitely impact on the efforts and results obtained regarding the policy under research in this paper. The creation of a new organism in charge of specifically governing the preschool's activities and performance might result on an interesting discussion subject regarding the likelihood to succeed or not of the strategies adopted by these institutions.

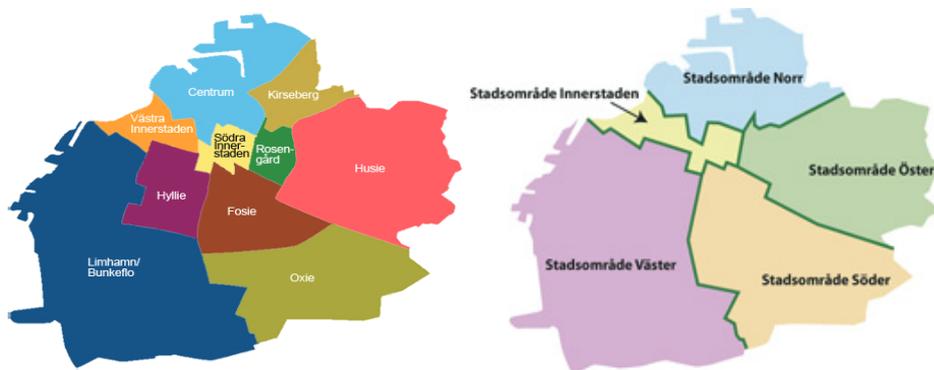


Fig. 3. Current and new district administration of Malmö

### School Meals Program in Sweden

School lunches have a long history in Sweden. Free of charge, the school meals program has been tax funded and served to every child attending school for over 60 years (Gullberg, 2004). Considered as a fundamental component of the welfare system, the rationale of the compulsory free meal to every child is multifaceted. On one hand, it can be seen as promoter of social equality curbing bad eating habits and malnutrition; while at the same time fosters gender equality by allowing women to work relieving them from domestic tasks (Gullberg, 2006). Moreover, based on the premise that these years are crucial for the adequate development of healthy citizens, a suitable diet is to be followed; at the same time, sufficient nutrients and energy should be supplied on the daily intakes of the kids to ensure a successful and fulfilling childhood, guaranteeing the ability to both learn and play.

The current legislation not only envisions a free meal, but an update enacted in 2011 added a clause specifying that the school food should be also ‘nutritious’ observing the Swedish National Recommendations, which seek “to meet the individual’s physiological needs for growth and function, provide the conditions for overall good health and reduce the risk of diet-related diseases”. Thus, this strengthens the conception of the school taking over some of the responsibilities traditionally associated to the family, carrying out social and health related political activities (Gullberg, 2006; Haastrup, 2003).

Most school meals are relatively healthy and nutritious, and alternatives are available for students with specific requirements, based either on religious/ethical beliefs or health concerns.

#### *The Swedish Education System: the special case of preschool*

The Swedish Education Act states that all children in Sweden are entitled and obliged to attend compulsory school, hence making home schooling forbidden (unless exceptional circumstances). A basic principle is that education shall be free of charge, of high quality and available to everyone, regardless of ethnicity, social status or geographical location (Statistics Sweden, 2007). Compulsory schooling is divided in three: Elementary school

for years 1-3, Middle school for years 4-6 and finally Junior high school for years 7-9 (Sweden.se, 2013).

For younger kids, however, there is also the possibility to attend early child education. It is important to clarify that in Sweden, there is no distinction between childcare and preschool; instead, it has been adopted a system conveniently called Educare which has to comply with a dual purpose:

- Allow parent to combine work and parenthood, and
- Encourage children's early development and learning.

Despite the importance of this program for the welfare system regarding free education and gender equality<sup>6</sup>, it is not completely free, there are some fees that are calculated according to the parent's income, with low-income families receiving the service for free, while more affluent parents fee is not supposed to exceed 3% of their income, capped at SEK 1,260 per month (Euromonitor, 2013). It is responsibility of each municipality to provide such services to children from age 1, and nowadays, around 80% of children between 1-5 years are attending preschool (Euromonitor, 2013).

A typical day for the preschool personnel, and some of the kids, starts at 6:30 am and goes along until 6:30pm, Monday to Friday. Current efforts are being undertaken to even provide services during the weekends and throughout nights and holidays. This means also a considerable amount of food is being served during the day. At preschools, two different kinds of meals are typical: the breakfast and the lunch with several snacks being served along the day, which together provide 65-70% of the daily requirement. The breakfast usually consists of a cool meal based upon bread, breakfast cereals and milk products, meanwhile the lunch is rather a hot meal based upon potatoes, rice or pasta, vegetables and meat, fish or eggs (Sepp et. al., 2006).

Preschool has the mission to lay a foundation for children's lifelong learning, in general, this phase should strive to ensure that children develop their motor skills, coordination, and body image, as well as gain an understanding of the importance of maintaining their own health and wellbeing (NFA, 2011).

#### *Guidelines for school meals*

The food in preschool is important in more ways than nourishment; generally, children that are satisfied are happier, more creative and docile than hungry children. As a part of the course in the Swedish public school system, and according to the NFA guidelines, school lunches are typically consisting of a cooked main dish, raw or cooked vegetables, skimmed milk or water to drink and bread with margarine. The pupils should have two dishes to choose from plus a vegetarian alternative (Euromonitor, 2013). An all-you-can eat salad bar is usually available on a self-service buffet, where children get to choose themselves their own food (Briske, 2011).

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<sup>6</sup> According to political adviser to Swedish Minister of Gender Equality, Miriam Nordfors, 'without preschools, Sweden would not have among the highest female and maternal employment rates in the European Union, or the lowest levels of child poverty'.

Money for the school lunches is taken from the education funding each municipality is autonomous on how to administer the budget, and then by school officials; therefore the amount allocated for school meals highly depends on how engaged in this issue are the former (Bruske, 2011).

According to the NFA report 'Good Food in preschools', great food in the nursery means that all food served tastes good, is nutritious and can be eaten in a pleasant environment. This last aspect, the 'school restaurant' as it is commonly referred by Swedish, normally corresponds to a huge room, well-lit by a combination of a bank of windows and globe lights; providing for a pleasant and quiet dining environment where kids have sufficient time to eat each day, at fixed regular hours. NFA guidelines recommends the to serve between 11 and 13 hours; while it also appoints that there should be no more than 2-2 ½ hours between meals. The food should be put up in a nice, fresh and appetizing way.

Another important recommendation consist on minimizing as much as possible the time between the preparation and the serving of the dishes, in order not only to preserve the taste, but also the nutrients. Important attention should be paid to allergens, as well as to the hygiene of the kitchens and serving conditions. Kids should wash their hands before the meal.

At the same time, the municipality may have guidelines for the selection and procurement of some food-industry products, organics, locally grown, or seasonal. In the guidelines for 'Good food in preschools' of the NFA, the range of 'Keyhole'<sup>7</sup> products is widely endorsed, for instance. It is not recommended to serve sugary drinks, buns, cakes, biscuits, ice cream and candy; the decision of allowing kids to these kinds of products, considered as 'empty calories', is left to the consideration of their parents.

Responsible of the observance of these is a special committee that has to effect decisions related to the food in preschools, either it is planning, procuring, cooking or so on; most importantly, though, is the implementation of a self-monitoring system with procedures to ensure food safety, integrity and traceability. Anyone who has had assignments as delegated should be empowered, have the expertise and resources to handle the assignment (NFA, 2011). Normally the preschool principal has the liability of these activities, and should also make sure that the catering staff has the adequate profile and receives constant training; regarding the menu planning, the municipality has to make sure that everyone has access to a diet consultant expertise for such matters.

Finally, the staff is responsible that the food served is nutritious, safe and sufficient, while the children themselves decide what and how much to eat. Encourage children to taste everything served is good, but children should never be forced to eat.

### *The pedagogic meal*

Although pre-school teachers in Sweden do not plan, prepare or cook the meals and snacks the children eat during the school day, part of their responsibility is to eat with

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<sup>7</sup> The keyhole is a food label that identifies healthier food products within a product group. Foods labelled with the keyhole symbol contain less fat, sugars and salt and more fibre than food products of the same type not carrying the symbol. For more visit: <http://www.slv.se/en-gb/group1/food-and-nutrition/keyhole-symbol/>

the children. Indicated on the NFA guidelines, the 'pedagogic meal' faces the responsibility laying over the preschool staff regarding the kid's education on eating habits, taste preferences, meal arrangement, table manners, and eating in general. Under the premise that children, especially very young ones, are strongly influenced by role models and adult examples, the pedagogic meals are believed to contribute to good, healthy eating habits that may remain for the rest of their lives.

As appointed on NFA guidelines, table discussions can encompass topics such as flavors, aromas, colors and textures, the provenance of food, and the body reactions towards eating certain products. In order to enrich this dialogue, different kinds of foods should be available, dishes from other cultural environments aid to impart knowledge about similarities and differences between cultures at the time of bringing variety and teasing children's curiosity towards novel products.

Encouraging sharing can offer also an opportunity to practice math, language development and social interaction. Deciding what and how much they eat provides a sense of independence and self-reliance on kids, but they must be instructed to take the amount and kinds of food, teachers can follow the amounts advice by the plate model<sup>8</sup> to encourage a balanced diet. Children can help with chores around the meal: setting the table, clearing the table, getting some food and present it; moreover, in some instances, they also help on the actual cooking of the meals doing tasks that suits their abilities, activity that is highly encouraged under the right supervision.

Adults are role models for children, and can contribute to good eating habits by communicating the joy of food and eat with the children. The pedagogic meal, hence, represents a unique learning opportunity that should not be disregarded, a teaching occasion that requires the interaction of children and adults in a meal context, since kids learn by imitating adults. The guidelines, moreover, state that older children also are in need of adult supervision as the presence of adults results in a calmer meal environment (National Food Administration, 2007).

Thus, there is a dual function of pedagogic meals: to constitute an enjoyable time for the people who consume this meal together, and at the same time to function as a learning occasion for the children; complying in this way with both components of the education and care, 'edu-care' system adopted by the Swedish authorities (Johansson & Pramling Samuelsson, 2001).

#### *Perceptions of public meals and the catering staff*

In order to have a complete understanding of the decisions taken by those responsible of the procurement of foods for the preschool meals is important to consider the society's perception in a general sense so to clarify in some way the steering factors influencing the decisions taken by the people in charge.

In Sweden, according to previous studies on the public meals perceptions and notions,

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<sup>8</sup> Good distribution of food on the plate is shown in the plate model. MSR have printed plastic plates with color codes in the edge to guide the children when serving themselves. You start with one of the larger parts and add potato, rice or pasta. Then takes vegetables and root crops in the second major section, and finally meat, fish, eggs or beans / lentils in the smallest part.

the school meals have been considered as 'second-class meals' consisting of heavy food served by unprofessional and uninspired staff in poor surroundings; definitely not living up to the ideal of a 'home-cooked' dish. Paradoxically, Swedes in general like the idea of having a free school meal that is provided by the state, considering feeding the children as a precondition for learning, even when the meals are not at all counterpart to those served at home (Gullberg, 2004). Different authors have encountered similar responses to the school meal, associating it to terms such as boring, disgusting, noisy environment and a general range of negative stereotypes around the subject (Lundmark, 2002; Poppendieck, 2010; Cardello, Bell and Cramer, 1996). These negative preconceived ideas towards institutional meals constitute a phenomenon that can be labeled "Institutional stereotyping" (Cardello, et al., 1996; Edwards & Hartwell, 2009).

The general wish is for meals cooked at school preferably just like at home using healthy, natural, and ecological food items, all of which are highly valued in Swedish culture, unlike the processed foods that are rather seen as inauthentic and of lesser value. Free choice, meaning having a lot of different options available, is also highly regarded to emulate the home-cooked food that epitomizes love and care (Lupton, 1996; Warde, 1997).

On parallel, negative attitudes are highlighted in the media, focusing on poor food presentation, food variety and physical setting rather than on positive cases; which only worsens the general perception of these meals, and of the people working on the field altogether (Cardello et al, 1996). As a response to this adverse environment, many schools are engaging on social media activities in order to provide for a platform that allow the dialogue and exchange of ideas, enabling students and parents alike to make suggestions (Friends of Swedish School Meals, 2012). Another interesting initiative consist on the recently launched application for smartphones developed by Egerup Produktion AB that displays the school menu each day for almost half of the 290 municipalities in Sweden, including Malmö (Euromonitor, 2013). The wide use of this app has proven the existing interest of parents on the subject, and thus has increased the public interest on matter, on some way also making pressure to improve the quality and variety of the food served since now it can be supervised in real time by the parents.

In addition to this, the personnel working on the catering business at preschools also has to observe the regulations and policies adopted by the local authorities, collaborating with the goals in agenda and taking the appropriate measures regarding their performance in order to comply with the legal requirements. As an example is the current goal of Malmö municipality to reach 100% of organic purchase by public institutions, including preschools, by 2020. Important to notice is the allocated budget for this purpose shall remain the same. According to the Food at School report, in average schools commonly spend SEK 9,50 per portion on food ingredients; making it challenging to fulfill the requirements of the society, cook a meal resembling as largely as possible a home-made one, and those of the local authorities, increase the purchase of organic products, that even when they approach the ideas of the home-made cook more closely than processed products do, they also tend to be more expensive.

An understanding of the pressures and daily requirements that the catering staff face on their working environment, will be useful for the later evaluation of their decision-making process they go through regarding organic purchase.

## The Eat *S.M.A.R.T.* model

As part of the Environmental Program for the city of Malmö by 2020, it has been recognized and assessed the importance of the food that is supplied, produced, and/or consumed in the city and the related environmental impacts of these processes. For example, food consumption contributed to about 25% of the GHG emission of Swedish consumption in 2008 (Naturvårdsverket, 2008). Therefore, by enacting the Policy for Sustainable Development and Food, the City of Malmö intends to increase awareness of the importance of good food choices on a healthy and balanced life so as the impacts that public, and hopefully civil food-procurement decisions have on the climate. The policy is to be followed by all public institutions within the City of Malmö that procure, order, prepare and serve food and beverages, with strong emphasis on public schools, nurseries and elderly care.

The policy strategies relate to sustainable purchasing, choosing healthy, good quality food and increase the knowledge and skills of those responsible for food-related activities, with the aim to achieve by 2020 the desired goals:

- Greenhouse gas emissions due to food-related activities shall decrease by 40%, compared to 2002 levels.
- All food served in the City of Malmö shall be certified organic.

Thereafter, the “Eat S.M.A.R.T. Model”, designed by the Institute for Public Health in Stockholm Region, has been proposed as a general guideline for a successful policy implementation. Following the National Board for Consumer Policies so as the National Food Administration recommendations, the acronym presents an approach that suggests a healthier and more environment friendly way of eating.

The policy for sustainable development and food in Malmö aims at this; and it is through organic foods, and sometimes the fair trade products that happen to overlap with an organic certification, a redesigning of the menus thinking seasonally available produce, mainly locally available fruits and vegetables, and the inclusion of pulse to substitute at some extent meat consumption, that the policy plans to attain this.

The S.M.A.R.T. model is presented following along with some backing facts provided by the author and that are independent from the model developed by the Public Health in Stockholm Region:

- **S – smaller amount of meat.** Considering the environmental impacts of meat production processes, plus the amount of energy and resources required, the policy proposes replacing meat by pulses such as peas, beans and lentils, which are characterized by high protein content while not that significant environmental impacts.
- **M – minimize the intake of empty calories.** According to the definition provided by the USDA, calories from solid fats and/or added sugars are often referred to as ‘empty calories’. Solid fats and added sugars add calories to the food but few or no nutrients. In other words, there are foods that provide a lot of energy with very little nutritional value. The consumption of these so-called “empty calories” is related to a number of health issues such as obesity, malnutrition and heart disease.

- **A – an increase in organic.** Following European Regulation EEC 834/2007, organic products are categorized as such produced without chemical pesticides and/or artificial fertilizers. In addition, organic farming entitles a concept that is associated with higher standards for animal welfare and very few additives allowed. In the case of Malmö, also the fair trade products, commonly having as well an organic certification, are considered to be a priority when procuring foodstuffs, adding up on a sustainability overall value to the products purchased. The ambitions of this section are that through the increase the levels of organic consumption, the quality of foods prepared also increases, while stimulating the market for this kinds of generally considered more environmental friendly products.
- **R – right sort of meat and vegetables.** An objective evaluation of the impacts related to the production of different kinds of meats such as lamb, beef, pork and chicken has to be carried out when selecting the products to be consumed, yet the main procurement target consists on minimizing the consumption of all kinds of meat due to the high environmental consequences the production process and related consumption activities have (Wahlberg, 2010). When it comes to vegetables and fruits, seasonable products are to be preferred since these are climate smart when compared to their greenhouse grown counterparts. In 2009, the Swedish government unveiled new food guidelines that recommended eating habits based on emission levels of greenhouse gases. These guidelines discouraged Swedes from eating cucumbers and tomatoes because they can only be grown in energy-consuming greenhouses in Sweden. So-called 'low-impact vegetables' like carrots were recommended over those deemed less 'climate-friendly.' (Euromonitor, 2013). In addition, the policy encourages vegetable procurement to be made seasonally, purchasing the products available at the time.
- **T – transport efficient.** Reduced food miles, type of vehicle and packing efficiency are important factors affecting food procurement. Deliveries to be made once a week and on a more regular basis when needed; transportation vehicles must be in accordance with the transport sustainability criteria adopted by the city (for example, fulfilling minimum of EURO 5<sup>9</sup> standard for heavy weight vehicles). In order to stimulate the procurement of locally produced foodstuffs, the municipality has the responsibility to improve conditions for local producers to sell their products, increasing competition at the time as promoting local economy by supporting small and medium producers.

The policy targets initially public institutions and serves, with the hopes of being an influencing and steering organism of the municipality as a whole in the long run. Thought the indicators chosen for the evaluation of the implementation results are more associated to the environmental dimension of the sustainable development Triple Bottom Line approach (more on following chapters), as can be seen from the elaboration of the Eat S.M.A.R.T. model, the whole idea of this guideline is to cover a holistic spectrum of variables regarding also social and economic impacts of the public food

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<sup>9</sup> The main effect of Euro 5 is to reduce the emission of particulate matter from diesel cars from 25mg/km to 5mg/km. For more visit: <http://ec.europa.eu/environment/air/transport/road.htm>

procurement process in the city. Additional efforts consisting on education to civilians in order to inform and raise awareness; so as future projects regarding local farming, aiming at a food production process happening both in and around the city, are envisioned as part of this policy as well. Concomitantly, a children's book has been released, 'Lotta Lotta and the Big Party', and is used as an educational tool to teach about food and the environment.

Finally, the policy acknowledges that the goals are to be achieved as a result of collaboration and commitment of the whole city administration; suggesting to the committees in charge of the actual procurement a break-down of the overarching goals to the required sub-goals and action plans suitable to their own daily procedures and activities. Evaluations and follow-ups are to take place only in the form of the districts annual reports, following the economic accounting structure, handing over the responsibility of compliance and meeting key indicators to the local committees.

#### *Testing the ground: Djupadal School Pilot Project*

In order to evaluate objectively the possibility to attain the 100% of organic food purchased initiative on public schools of the city of Malmö, it was decided to carry out a pilot project from 2004 to 2007. The school chosen, serving 500 meals per day, was Djupadal in the Limhamns – Bunkeflo district, as its kitchen facilities were about to be refurbished hence serving as a good replication model for future projects. In collaboration with restaurateur David Kallos, famous for being strongly opinionated towards the use of organic and fair-trade products, the kitchen opened back in 2006 introducing a redesigned menu exchanging regular products for organic options, utilizing more and seasonal vegetables and fruits and envisioning the elaboration of homemade organic bread and soup. The basic menu is now available for Malmö School Restaurants.

The project was considered finalized in 2007 reaching a 97% of organic products purchased within the same budget as for standard foods, and only 10% higher than the cost of an average portion served in Malmö, with the same nutrition and quality, if not better, and remaining as close as possible to the existing preferred dishes of the pupils. Additionally to the kitchen and menu modifications, extra efforts included education for the staff in sustainable and organic food and a strong commitment from the school's headmaster, so as the generation of written agreements and contracts with organic products suppliers in order to guarantee product provision in time, price and amount.

Regarding the environmental impacts, it was difficult to measure CO<sub>2</sub> emissions corresponding to the transport of food; however, it is believed that the measures taken, reducing the amount of meat in combination with the increase in seasonal local vegetables, is the most environmentally approach to adopt. Further numbers show a decrease in the level of organic for Djupadal, reaching 85-90%. The reasons given by the municipal authorities are that since the end of the program, the extra pressure exerted by external observers is gone, so as the project leader and head chef who were relocated to new tasks. Besides supplying their own school, they are also preparing meals for close-by institutions as well.

### *The policy and preschools current situation*

As a reference number, in 2009, 43% of the food served by Malmö School Restaurants was organic. For the whole city, back then it was only 24% (Palmkvist, 2010). The explanation can be found on the fact that by that time preschools and elderly centers have not started the implementation of the policy back then. In the city, Malmö School Restaurants is the main supplier of meals for public schools; all the menus prepared here are fixed and centrally decided, which allows for an easier organic purchase process, since the decision making doesn't involve the participation of different actors.

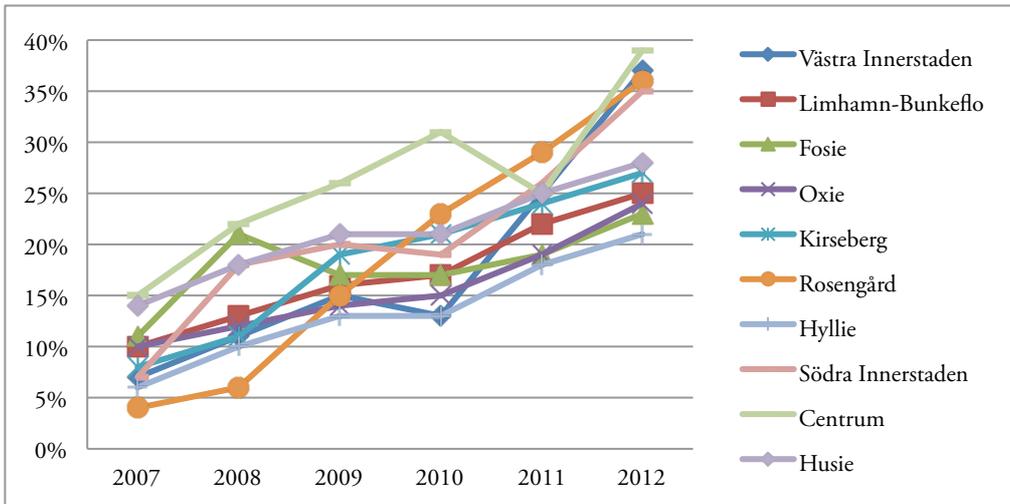
On the other hand, concerning nurseries and preschools, there is no central control over the menus, meaning that each individual cook can decide independently the final menu. This complicates the process, making it longer and requiring extra training for preschool cooks, or else the person in charge of the menu planning and purchasing process; however, it as well provides for an interesting room for improvement with high impact results, not only considering organic food purchased, but also on the eating habits of youngsters, the consumers of the future.

Nowadays in Malmö there are 244 public preschools around the city districts, plus 70 private such institutions. Every year the Environment Department organizes an event where the preschool with highest levels of organic purchased so as the one that showed the highest increased or improvements are recognized with an award. These evaluations are carried out thanks to the statics shown through the software QlikView and the reports obtained in Raindance, the purchasing tool used to acquire all goods by public institutions. Also, the total results per district are calculated, the condensed results for the past couple of years are shown in the following figure. Having a compound result of organic purchasing levels over time, rather than a punctual one, allows for a wider view of the evolution of each district on time, which will be hopefully helpful for further analysis.

As interesting highlights of the results, can be noted that Centrum remained the strongest purchaser, with an interesting peak from Rosengård jumping from the last position up to one of the highest, and Fosie showing the opposite evolution rather decreasing its overall position, showing a slower advancement. It is important to mention, however, that these results are not exclusive for preschools, but otherwise include also the activities of other organizations such as elderly centers and LSS<sup>10</sup>. In addition, this calculation also computes the fair trade category products, even though they are not all organic, a great percentage of them also have this kind of certification.

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<sup>10</sup> LSS stands for 'Law on Support and Service for Certain Disabled' and provides special assistance to such people. For more visit: <http://www.malmo.se/Medborgare/Omsorg-varld--stod/Stod-till-personer-med-funktionsnedsattning/Stod-enligt-LSS.html>



**Fig. 4. Evolution of organic purchase in the ten Malmö districts**



# Deciding for Sustainable Food

## Sustainable Catering & Public Procurement

Sustainable development and its interconnections with food systems are to be observed in a public procurement context in order to evaluate the potential implications that such notions have on the decision making process of the pertinent characters. Considering a Swedish public procurement perspective, the Triple Bottom Line approach of sustainable development is presented, followed by an introduction of how sustainable food systems are being pursued through the theories related to the decision-making process happening in the public sector.

## Public Procurement in Sweden

Public procurement is defined as the acquisition of goods and services by government or a public organization (Uyarra and Flanagan, 2010). The concept encloses the measures taken by a contracting authority with the aim of bestowing contracts or concluding 'framework agreements' regarding products, services or works (LOU, 2011). It is basically matching supply and demand, but exercised with special caution since the process is accountable to tax payers; thus, it has to look after the benefit of the society as a whole.

Despite the scale it represents (for EU countries it is estimated to be circa 19% of GDP), only in recent years it has been acknowledged that this is one of the key economic activities of government embedding sustainable development considerations into spending and investment decisions (Thai, 2001), unleashing a whole new conception of the process and stimulating the creation of innovative policies to help achieve outcomes in society greater than those pursued by the current models.

Public procurement in the EU is guided by national policy frameworks, coupled with an overarching EU policy framework that is designed to open up the EU's public procurement market to competition, outlawing "buy national" policies and promoting the free movement of goods and services. In Sweden, public procurement policies have to be developed under the Swedish Public Procurement Act (LOU), in force since 1994; largely based on EU directives on public procurement 2004/17/EC and 2004/18/EC.

In accordance with the EU directives, the LOU determines that five fundamental principles should shape public procurement activities:

- The principle of non-discrimination prohibits the exclusion of suppliers based on nationalities; in other words, it forbids the selection of suppliers giving preference to local companies.
- The principle of equal treatment determines that all suppliers have to have access to the same information at the same time.
- The principle of transparency obliges contracting authorities to provide clear and plain information regarding the procurement procedure's requirements.
- The principle of proportionality establishes that all requirements imposed must be appropriate and necessary in relation to the aim of the contract.
- The principle of mutual recognition is there to guarantee validation of the different certifications issued by a EU Member State in other EU countries so to give equal opportunities to everyone.

A final evaluation of the suppliers that meet the specified requirements is driven by the following criteria:

- The tender that is the most economically advantageous for the authority, or
- The tender that has a lower price.

Even when LOU states that some environmental and social considerations might as well be imposed in the contract documents, the former evaluation principles leave no doubt that the current process is skewed towards economic benefits. Nevertheless, increasing support for environmental protection and an underlying political commitment to sustainable development from Swedish authorities as a whole have open up the legal room for incorporating additional considerations other than financial ones on the tendering process during the last couple of years, a possibility given when choosing 'the most economically advantageous' tender, implying that other criteria will also be taken into account, other than the price (Alhola & Nissinen, 2012).

## People, Planet & Profit

International raising awareness regarding depletion of natural resources, increasing poverty and the overwhelming consequences of climate change, has encouraged the design and adoption of a new philosophy regarding the modification of the prevalent current unsustainable consumption practices around the world (Srivastava, 2007; Preuss, 2009). Sustainability is a concept with a myriad of definitions, currently with no established universal one; however, the most commonly referred to is that coined during the Brundtland Commission:

*"[Sustainable Development is] Development that meets the needs of the present without compromising the ability of future generations to meet their needs." (WCED, 1987).*

Because this definition is so far reaching it becomes difficult to evaluate whether an organization is sustainable or not and if so in which extent; therefore, accounting

frameworks have been developed with this aim. The Triple Bottom Line (Elkington, 1997), one of the most accepted frameworks internationally, incorporates three dimensions of performance for any given organization: social, environmental and financial. Also commonly called the 3P's as for People, Planet and Profits, the framework struggles concerning a common unit or method of measure. One controversial approach to this has been the monetization of the different dimensions, challenging due to the subjectivity of placing a price for endangered species or unethical activities, for instance. Another more accepted option is computing a compounded index encompassing economic, social and environmental measures, allowing for the elimination of incompatible units thus easing comparison between entities (Slaper, 2011).

However the efforts, a chief challenge when applying assessment methods consists on designing an index that is both comprehensive and meaningful and that can be calculated with the usually limited available data.



**Fig. 5. The 3P's of Sustainability: People, Planet & Profit**

Even when separate variables are considered for the measurement of the different dimensions, the final outcomes they portray are related and comprehensively interweave affecting altogether the sustainability performance of an organization. For instance, the economic dimension deals with the flow of money on the organization; the environmental variables strive to evaluate the impacts of the business on the environment, and the social dimension attempts towards pondering the human assets of the business and the community surrounding it; all while promoting over time the

interdependence of economy, society and nature, the main challenge and task of a sustainable development model.

The ultimate goal for the modern organizations is the adoption of a sustainability philosophy that works fundamentally as a 'normative standard that serves as a meta-objective for policy' (Meadowcroft, 2007).

## Aiming at a Sustainable Public Plate

*'If we are what we eat, then public sector food purchasers help shape the lives of millions of people. In hospitals, schools, prisons and canteens around the country, good food helps maintain good health, promote healing rates and improve the concentration and behavior. But sustainable food procurement isn't just about better nutrition. It's about where the food comes from, how it's produced and transported and where it ends up. It's about food quality, safety and choice. Most of all, it's about defining best value in its broadest sense.'* (DEFRA, 2003)

Regarding public organizations, policy-makers use the 3P's assessment framework to decide the actions they should pursue, evaluate the cause and effect relationship between them and the trade-offs they imply, with the ultimate aim to make society more sustainable. On parallel, being a pioneer and setting an example sends a message to private business and consumers alike; this is why governments around the world are addressing the challenges of sustainable development by leveraging their purchasing power as major procurers of goods and services (UNEP, 2012).

As a result, sustainable public procurement, SPP, has emerged as a tool for achieving the greater aims of modern cities ambitioning for more than just financially profitable communities. SPP refers to the act of integrating a concern for broader social and environmental impacts within procurement undertaken by government or public sector bodies (Preuss, 2009; Walker and Brammer, 2009); in other words, it supposes spending public money responsibly in products and services that foster sustainable development. SPP was recognized as a priority theme for all regions during the 19th Session of the Commission on Sustainable Development (New York, May 2011).

The benefits of adopting SPP strategies are varied and wide on impact; depending on the direction they are oriented to they will affect on bigger or lesser extent the CO<sub>2</sub> emissions as well as meeting other environmental goals like air and water quality. SPP also implies financial efficiency once the organizations realize the potential in the long run; driving innovation towards a more sustainable market is another notable benefit, so as boosting supply chain competitiveness; achieving social goals such as employment generation and tackling child labor all while demonstrating political commitment to the cause of sustainable development (Brahmer & Walker, 2008).

Re-valuing a public procurement system and transforming it into a sustainable one represents a complex endeavor notably because of the significant changes involved regarding overall management principles and their translation on basic daily procedures. Specifically about the process of putting theory into practice, the applied dimension of

implementing SPP policies, there is no agreed model for doing so or universal guiding documents; moreover, and in spite of the development of encouraging policy frameworks internationally, relatively little research has addressed sustainable procurement in a public sector context (Preuss, 2009; Walker and Brammer, 2009).

According to each entity's legal structures and political agendas, suited sustainable public procurement policies have to be designed. A variety of tools (Life Cycle Assessment or Green Public Procurement for instance) to support the integration of sustainability criteria during public tendering processes are available in addition to networks and other platforms providing technical guidance and orientation to interested parties. An example is EcoProcura, a series of conferences to promote exchange and dialogue on strategies and policies on sustainable public procurement and public procurement innovation that was held the past September 2012 in Malmö.

The right SPP implementation approach depends on the political local support, knowledge and experience in sustainability issues in general, and the feasibility of applying certain policies, which can refer to the availability of sustainable products and services in local markets. In general, ICLEI through its sustainable procurement research center, suggest some key elements for successful SPP implementation that encompass the adoption of a policy or strategy, setting up a working group, identifying priority sectors and SPP criteria, setting targets and monitoring performance, engaging the market, and networking and cooperation, among others (Pocura+, 2012).

The food system realm has been a topic increasingly moved to the forefront of the debate of sustainable public procurement. Food provides an interesting prism through which to discover the interrelations of the three conforming dimensions of sustainable development. Indeed, food brings about a wide range of issues that lie at the heart of current sustainability debates: from public health to social inclusion, from sustainable consumption to the environmental implications of activities such as transport, processing and waste management (Morgan, 2007). Getting even more specific, school food represents the litmus test of a society's commitment to sustainable development since it involves nothing less than the health and well being of young and vulnerable people (idem).

The transformation of the public plate into an instrument to pursue sustainability uncaps the potentials of instilling new ways of thinking and feeling about food in younger generations, resulting on knowledgeable future consumers. Since the school meals program is one of the few public services specifically targeting 'future generations', it becomes crucial to realize that if properly designed, planned and monitored, it becomes a service that holds enormous potential to deliver multiple health, ecological, social and economic dividends, including reducing the human and financial costs of poor diet, lowering carbon emissions, creating new markets for quality food producers and empowering consumers by building their capacity to eat healthily; and perhaps most important, it builds a collective commitment to the three fundamental principles of sustainable development (Morgan and Sonino, 2009). In addition, the nutritional quality of public food, its organoleptic properties (smell, taste, texture) and its provenance (how and where it is produced) can be used as an indicator of the moral

economy<sup>11</sup> of food as well as of the sustainability of the food chain itself (idem).

### **Sustainable Public Catering**

As a result of sustainability awareness efforts at schools and preschools related to food concepts such as organic, vegetarian diets, seasonal and local produce, it is expected that children, future consumers, can learn more sustainable eating habits from models in canteens or cafeterias, and hence also change their private consumption practices (Mikkola 2009).

#### *Organic Food*

Organic production of foods is not the only, but it is the most far-reaching of currently applied measures to increase the sustainability of food production and consumption (Thøgersen, 2005). A switch to organic foodstuffs in public kitchens in EU countries would reduce carbon dioxide emissions by about 4.9 tonnes, which is equivalent to the greenhouse gas emissions of approximately 600,000 people; similarly eutrophic phosphorous emissions would decrease by more than 41,000 tonnes, which corresponds to the emissions of about 3.5 million people (RELIEF project, 2009). This means that the effects of the use of chemical fertilizers and pesticides, affecting local water and polluting the soil plus other negative impacts on human health, will be reduced (Procura+, 2011).

Regarding Sweden, many Swedish consumers have enthusiastically embraced the concept of organic food, reflected by per capita spending on these kinds of food and beverages rising by nearly 50% between 2006 and 2011, most of it accounting for by dairy products. As a response, specialist organic supermarkets have been springing up in the larger cities, including Green Matmarknad in Malmö. Many of these stores also sell vegan and vegetarian food (Euromonitor, 2013).

KRAV, the Association for Control of Organic Production, is the Swedish certification for organic products, catering kitchens and restaurants; leader on setting up the rules for the whole value chain from production to marketing with consumer-oriented labels (KRAV, 2009). According to their 2013 report, KRAV works a lot with EU Organic because their range targets also the public sector, which may not explicitly ask for KRAV certified products.

To gain perspective regarding the purchasing habits of Malmö concerning organic products, the EKOMATSLIGAN report proved to be helpful, since as a benchmarking initiative comparing municipalities, counties and regions in Sweden, it served to locate Malmö's in the national context. The figures in the graph down indicate the percent organic food of total food purchases in SEK, with a standard of 25% and Malmö reporting almost 10% higher this average value. The table is based on information taken

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<sup>11</sup> According to Andrew Sayer, a leading social theorist, the moral economy: 'embodies norms and sentiments regarding the responsibilities and rights of individuals and institutions with respect to others. These norms and sentiments go beyond matters of justice and equality, to conceptions of the good, for example regarding needs and the ends of economic activity. They might also be extended further to include the treatment of the environment' (Sayer, 2000).

from "Organic in public catering in 2012", and by organic it refers to different labeled food like KRAV, Demeter, EU organic and MSC. All figures are from 2011.

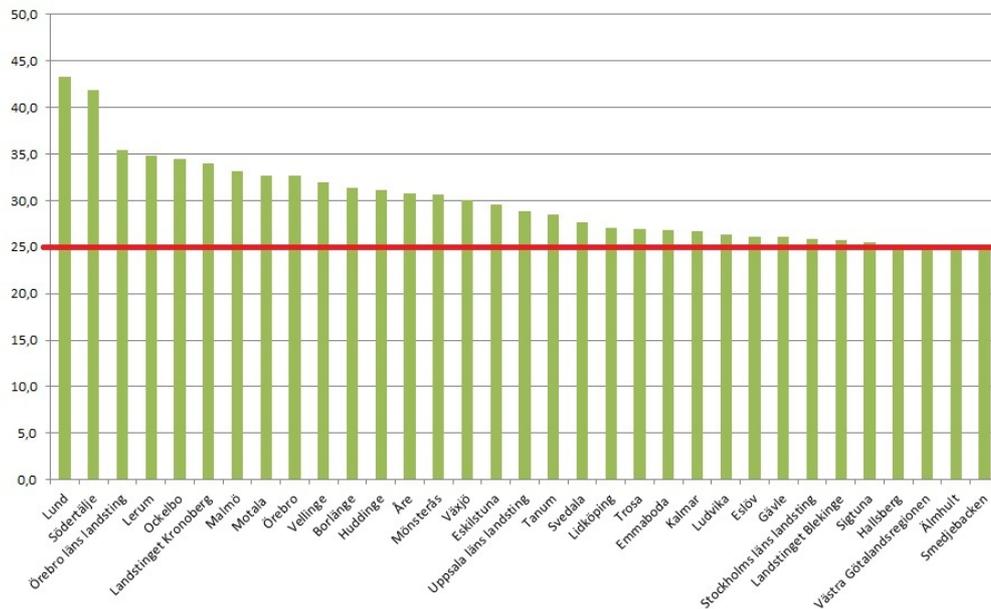


Fig. 6. The 25 best municipalities as regards organic food consumption

Even when studies have shown that organic foods create goodwill in the Swedish consumer, connecting it to emotional aspects due to a reminiscence of the homemade meal, introducing organic foods in the public sector has been complex due to high prices, limited budgets and unreliable supply (Bergström et al., 2005). In the public catering sector, the switch from regular to organic options proceeds slowly, with some exceptional cases<sup>12</sup> from which good example can be drawn. Further reasons why this happens reside on the catering staff doing the purchasing process, since not everyone weights the organic attribute highly, nor does everyone equally strongly believe that the purchase of organic products makes any difference (Thøgersen, 2002).

#### *Fair Trade, Vegetarian, Local & Seasonal*

Even when the main policy goal is the attainment of 100% organic food purchased by 2020 by public institutions, other food notions, yet not that specifically as in the former case, impacting sustainability dimensions are envisioned as well. As first example, and just because it is the most tightly associated with some of the organic products purchased (since they happen to share certifications covering both instances), is the fair trade foodstuffs concept, for which Sweden is a leading country worldwide. Meeting mainly

<sup>12</sup> Södertälje Municipality enacted a policy stating that all kitchens in preschools, primary and secondary schools should be KRAV certified. As a result, the share of organic products increased from 14 to over 40 percent of total food purchases.

social dimensions aspect of sustainable development, Malmö was certified Sweden's first Fair-trade city back in 2006 acknowledging that the ethics of a food economy cannot really be assessed without a careful consideration of issues such as production methods and social fairness (Morgan & Sonnino, 2009). Ever since the municipality has actively worked promoting worker's conditions, democracy, the right to organize and environmental considerations related to production while opposing child labor and discrimination (Euromonitor, 2013). These kinds of products have been also a priority as regards public catering according to the policy.

On parallel, consumers concerns regarding sustainability have resulted on an increased number of people adopting vegetarian and vegan diets, paradoxically Sweden being steeped in traditions of meat, fish and dairy (Euromonitor, 2013). Recalling the eat S.M.A.R.T. model, an increased in fruits and vegetables was suggested along with the substitution of meats for organic options or even pulses; moreover, initiatives of 'vegetarian days' for the school meals are also being adopted all over the country, including of course Malmö preschools as well. The adoptions of vegetarian diets has to do as well with concerns of animal welfare, for which the organic certification can look after as well, while in the specific case of fishery and seafood, the MSC label guarantees sustainable fishing practices (Environmental Department, 2013) reason why this label is also accepted and assessed as part of the achievements of the public organizations.

Local food is defined as "food production and consumption that uses raw materials and production inputs from their own region to enhance the local economy and employment" (MTK, 2008). Another definition coined in the UK by the National Association of Farmers' Markets (NAFM) specifies local food in terms of the distance from the market suggesting that food from within 30 miles radius is ideal and from within 50 miles is acceptable (Jones et al., 2004).

As regards the Policy for Sustainable Development and Food, it seeks to encourage institutional food service managers to consider local products as strategies, rather than as goals (see public procurement in Sweden guidelines section) to achieve certain outcomes pursued by the eat S.M.A.R.T. model such as fresh and seasonal. Despite this loosen enforcement, local foods is a strong and growing trend in Malmö that is also being enhanced by national initiatives like 'The New Culinary Nation' that seeks to create a regional food culture and a local identity through gastronomy in Sweden by investing in rural development and local producers, restaurants and independent food shops (Ministry of Rural Affairs Sweden, 2011). The seasonality characteristic of food products is deeply embedded on the local food concept; and has also been thought of via menus designed specifically for a given time of the year. Eating local and seasonal also portray implications of reduced food miles, and fresher foods empowering local producers.



Fig. 7. Sustainable food labeling in Sweden

## **The challenges of sustainable food procurement**

Much discussion is still taking place, in both scientific and policy circles, regarding how to achieve in practice the radical shift in existing patterns of production and consumption that a sustainable urban food provisioning implies. A sustainable food system is defined as one that provides people with equitable share of the agro-ecosystem products, and maintains the productivity for future generations (Helenius et al. 2007).

In order to achieve this, a broad range of alternatives aiming to resist predominant trends are emerging; while research has leaned to examine particular case studies happening on specific sectors of diverse countries or regions. Some studies specifically focus on SP policy and the development of tools to assist policy implementation; examples include a tool developed in Germany to identify hurdles during the Green Procurement process in municipalities (Günther and Scheibe, 2006); international comparative studies highlighting the organizational catalysts and inhibitors of greater involvement in SP (Brammer and Walker, 2008); the identification of best practice while translating sustainability into public procurement practices in Swedish municipalities (Wickenberg, 2004) and the application of environmental information when making purchasing decisions also on a Swedish context (Bergström, Solér and Shanahan, 2005). More specifically, sustainable public catering studies are abundant for countries such as Finland, UK and Italy; who have confronted the issue from different angles including the interpretation of sustainability criteria by the different stakeholders, hurdles and enables encountered during the process, the impacts of catering decisions on the food system sustainable performance, the interpretation of environmental impacts when awarding contracts, and so on (Norja and Mikkola, 2010; Aalto and Heiskanen, 2010; Sustain, 2002; Morgan, 2008; Wahlen, Heiskanen and Aalto, 2011; Alhola and Nissinen, 2012; Post, 2011). Using the public catering sector as a pioneer in the use of organic food has also been suggested in several studies in Denmark (Illsoe, 2004, Mikkelsen et al., 2002; Mikkelsen et al., 2007). These have encountered that a combination of 'best practice', subsidies and training programs are good examples of tools for promoting organic products as the final purchasing option among kitchen staff (Heikkilä and Svensson, 2007).

However, the majority of the available studies referring to the implementation of SPP policies on Nordic countries and whenever possible specifically Sweden, in English language, mainly focus on the environmental dimension of sustainable development and how considerations on this matter affect the perceptions, attitudes and decisions of procurement staff. It is most of the times only the ecological aspect of the environmental dimension during the tendering process, usually through concepts such as GPP, the one computed on literature, probably due to the apparent simplicity of measurement that, even when not officially recognized, the organic products represent for this matter. Findings suggest that currently, catering personnel are giving priority to business-oriented parameters such as price and service during the purchasing process at the time of facing a dilemma in terms of the ideological concerns about organic foods (ways of thinking and calculating the impacts of these rationalities); moreover, there is a pervasive conflicting environment in public institutions encouraging the purchasing of organic products, usually involving a price premium, while keeping budget within a certain level.

There is common agreement on the influence of context, the need of effective communication between authorities and stakeholders especially regarding economic demands and environmental incentives, and the provision of adequate tools and training to purchasers and personnel involved in the procurement process (Post, 2011).

As part of the national and cultural context of the preschools under research, is important to note that the cultural norm in the Swedish environment is to strictly follow rules, regulations and guidelines: as befits the country's Lutheran heritage, Swedes tend to think of themselves as having a strong work ethic (Euromonitor, 2013); this pungently defines the everyday practices of public servers altogether, who tend to literally observe the ban imposed to the specification of local foods in the tendering process, for instance. The ambiguities of the law of public procurement, that do not openly support local and regional food, but that explicitly forbids the use of this specificity as the ultimate determinant during a tendering process, stirs confusion and uncertainty on public purchasers. An example of a more flexible interpretation and adoption of such procurement principles is the case of Italy, who has rather found benefit out of the 'most economically advantageous tender', including here the values and characteristics that are considered to be priority for the Italian authorities, and coincidentally happen to meet only with those of the local products available (Morgan & Sonnino, 2008).

Even when the conditions of procurement differ for every individual case, causing high variability on practices and strategies adopted during the implementation process, the policies to promote sustainable consumption are rarely coercive and instead tend to rely more on education, persuasion, and incentives (Heiskanen et al. 2010). For this reason, deeper discussion is needed regarding the specific variables shaping the conditions of 'consumption practices' of the actors involved on the implementation of policies, since the understanding of this will allow for a higher implementation control plus an early evaluation of potential outcomes. It is important to emphasize the notion of 'consumption practices' as according to Halkier and Warde (2011 & 2005) a large share of environmentally relevant consumption (which can be related to the organic food consumption that is evaluated for the sake of facilitating links with sustainability notions in the research context) occurs as part of a routine practice. Consumption practices are formed over time and can be considered as developing, reproducing, and reconfiguring constantly (Hargreaves 2011; Shove 2003; Shove and Walker 2010). It is at this level that changes should be stimulated, because consumption practices are the starting entities that develop fostering sustainability (Shove and Walker 2010).

The context factor of the public catering sector, meaning working conditions, education, and main aim of the work among others, then plays a determinant role since it provides the framework of these 'consumption practices'. Knowing it then is helpful for creating appropriate tools since different situations require different actions (Post, 2011); based on this premise previous study of the preschool working environment, the notions around the schools meals program, and general public perceptions related were evaluated so to make a fair, informed study of the decision steering factors determining the final decision of purchase of preschool caterers.

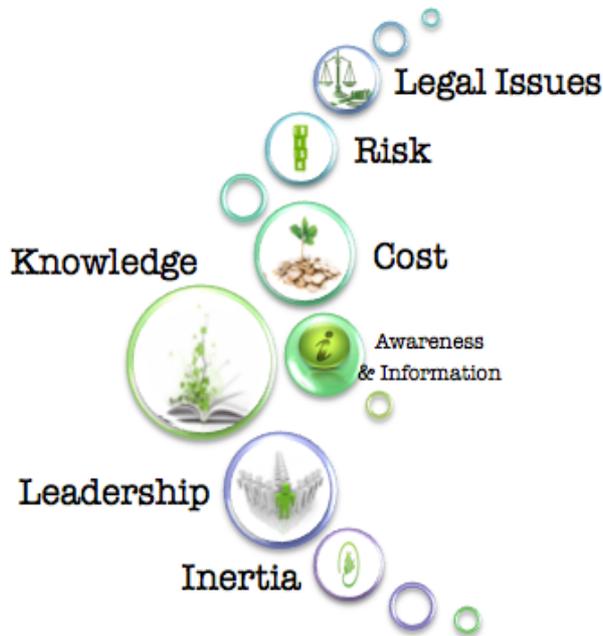
Regarding hurdles to implement or scale up SPP policies or practices, according to a comprehensive study of the subject, the failure to implement whole-life costing, largely attributable to the fact that the procurement profession feels hopelessly torn between an

'efficiency' and a 'sustainability' message representing conflicting implications regarding cutting costs and securing value for money respectively, is one of the biggest barriers to confront. Another study carried out by the British National Audit Office (2005), also identified this dichotomy as a common barrier to sustainable procurement, along with a number of other factors:

- *Cost.* Value for money is perceived to be inconsistent with paying a premium to achieve sustainability objectives.
- *Knowledge.* General lack of awareness of the actors involved.
- *Awareness and information.* Information about the most sustainable options, awareness of products existence or availability, lack of monitoring suppliers and perceptions of inferior quality.
- *Risk.* Risk-averse buyers prefer to purchase from suppliers with a good track record. A fear of criticism conveys less will to take innovative approaches.
- *Legal issues.* Uncertainty as to what can and cannot be done within the legal framework.
- *Leadership.* Lack of organizational and political leadership translates on a lack of ownership and accountability at all levels.
- *Inertia.* Lack of appetite for change (personal or organizational incentives to drive change)

As regards sustainable catering, on a research studying the position of Nordic stakeholders, Anna Post (2011) encountered that the barriers in the development of the field, intimately intertwined, are insufficient communication, not "knowing" the environment, organic food as the convenient solution, conflicting messages and ideological dilemmas. On this last concern lies the implications resulting of political directives to increase organic food in all public catering institutions; due to the characteristic conditions of economic rationalization and limited budget faced on the public catering sector, that is supposed to increase organic food consumption usually requiring more expensive products and kitchen reorganization, hence extra investments, without extra funding (Post, 2011).

Concomitantly, Post has identified important factors determining the success of sustainable procurement implementation strategies. Communication (the effective kind), context and language adopted with an overall system thinking approach, if properly applied, turn out to be crucial for this matter. It has been found that inconsistent messages are rather problematic and harmful on the implementation process, also research has reported current practices of conflicting communication in the relations between catering staff and authorities (Mattsson-Sydner and Fjellström, 2007; Mikkola, 2009). In addition, the individual understandings of the sustainability concept among the different stakeholders vary from very theoretical grasps to a more pragmatic concept, views that when being communicated imply different vocabulary used interchangeably. Not knowing the environment or the language used in a given context can hinder communication (Joutsenvirta, 2007); so considering that communication and language are crucial for social change (Post, 2011) effective, straightforward and clear communication strategies designed to reduce ambiguity of interpretations, eliminating misconceptions, while easing the transfer of meaning and available information bearing in mind stakeholder's specific context, become really important.



**Fig. 8. The most common barriers to Sustainable Procurement**

In order to achieve this challenging endeavor, a system thinking approach allowing for a holistic vision of the food chain is recommended, so to reveal all participants' perspectives, as oppose to a 'flat' vision of the chain that only considers the position of the 'next in line' actor (Post, 2011). Specifically, if a solution is to be found, it has to be implemented in the supply chain as a whole, instilling a common sustainability philosophy that steers the activities and decisions of all stakeholders rather than just facing isolated situations.

In addition, a comprehensive training program has been found to generate positive attitudes towards organic foods (Heikkälä & Svensson, 2007). A research concerning the shifts on attitudes, perspectives and behaviors of participants of sustainable catering training programs orchestrated by the Environmental Department of the city of Malmö, showed similar results. As part of their efforts to increase the involvement and commitment of public caterers at preschools, public courses have been carried out and a post-evaluation questionnaire was conducted in order to gauge the results and identify future course of action (Environment Department, 2012).

### **Preschool caterers making food choices**

At preschools, just as in most of public organizations in charge of delivering a service to the tax-paying public, strategic decisions prompt a complex web of transactions requiring widespread organizational involvement (Post, 2011). In Malmö, the procurement department is responsible for drawing up contracts and signed agreements with suppliers and wholesalers, usually lasting for a two-year period supply. The process develops by sending out inquiries to many food producers and distributors, who then respond to

written descriptions of products to be bought. The purchasers' work ends here – at this stage each catering manager can start to buy the food provided for in the agreements. Overcoming the different challenges of implementing sustainability criteria at the central procurement level in order to provide with suitable options to individual caterers among the municipalities, thus, is not the ultimate task to look after for local authorities. After this stage, it still remains a whole complex universe of decision-making steps involved on the daily 'consumption practices' of preschool caterers, the final decision-makers at this level. For this purpose a better understanding of consumer decision-making when choosing between organic and non-organic foods is needed in the hope to develop best practice.

It is usually in the hands of the catering managers, those closest to the kitchen, to make the decision whether to buy a certain product or not. Considering that in Malmö there are 314 preschools, each of them with an independent purchasing system, it will not be surprising that much sustainability information communication efforts from local authorities fall 'through the cracks', leaving few actors prioritizing the ecological dimension (the CO<sub>2</sub> emission reduction assumed to be consequent of the increase in purchase of organic products that the Policy for Sustainable Development and Food dictates) over the economic dominating criteria.

Getting 'value for money', as we have noted, is easier to proclaim than to prove. Indeed, value for money –the modern mantra of governments across the globe – requires a far more sophisticated system of metrics and accounting than most governments have been able or willing to develop in order to assess the costs and benefits of their purchasing decisions. Analyzing the current situation of the organic purchasing levels of Malmö municipalities, however, shows that over time, the strategies implemented and the efforts carried out have been successful since the overall organic food consumption level has risen over the years (See Fig. 3); in some municipalities more dramatically than in others. There is no doubt that the diverse composition and environment of each municipality, along with the individual wills of the caterers over the cities have shaped this result; but it is the aim of this research try to clearly identify the underlying reasons of these variances at least in Malmö.

#### *Decision Making Process in public procurement*

The complex context in which school caterers and public officials have to maneuver when making decisions about the kind of food children should eat at school, the world of public procurement, is embedded in and subject to a hierarchy of regulations: from international WTO regulations that seek to liberalize the trade in food, to national regulations that govern the nutritional quality of food. In order to come to decisions in this context, and more importantly to implement and control them, the public caterers, not always aware of<sup>13</sup>, follow distinctive processes.

The procurement process of a municipality is a specialization of the general decision process based on public targets (Günther & Scheibe, 2006). Some variations might appear due to the involvement of different areas and the de-centralized context of Malmö preschools. Studies have been carried out regarding mainly selection of suppliers and the

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<sup>13</sup> Schneider, D. (1995), p. 1 or Heinen, E. (1976), pp. 19 refer to real decisions and routine decisions.

implementation of the environmental and other sustainability related considerations during the tendering process, yet, there is a gap regarding the final decision process that public caterers face and which is the determinant phase of the whole public procurement process.

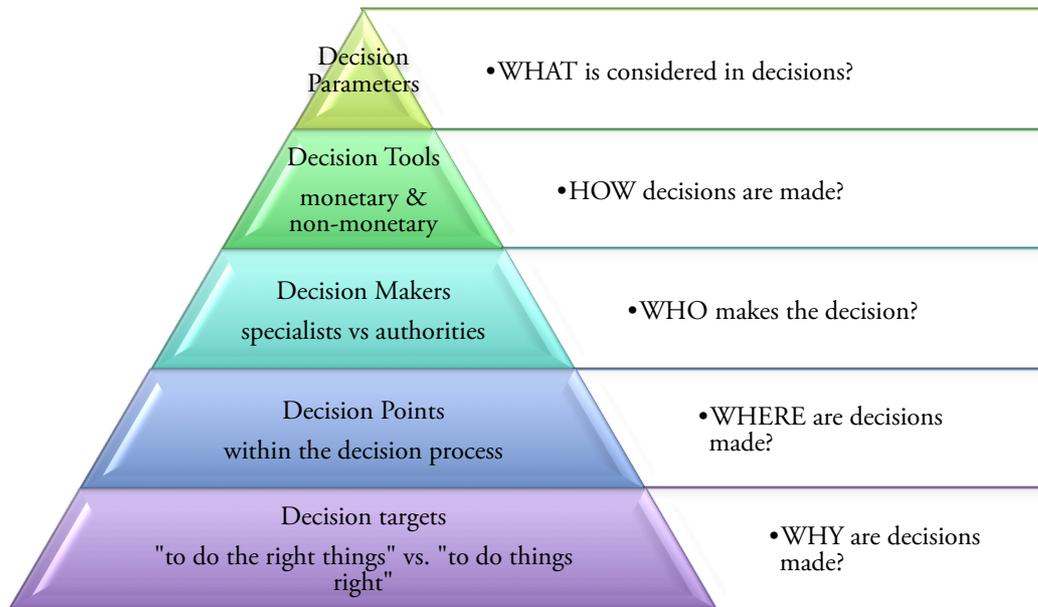
Even when preschool staff in charge of the procurement process is the key holder of the potential to make the policy for sustainable development and food a success, it has to be acknowledged that the decisions they make are influenced and shaped by a chain of several other decisions made by different actors along the municipality. In the case of Malmö preschools, the environment department, local environmental managers and preschool leaders, the procurement department as well as school and catering staff are all together on the pursue of the policy goals, working under a specific local political framework and financial conditions. Each of those departments consists of actors on an operational level (Specialists = Know-How promoters meaning the holders of expertise) and strategic level actors (Executives/Politicians = Power promoters) (Günther & Scheibe, 2006). Additional external factors such as the state regulations and laws, the market provision of suitable products, and the ultimate behavior and decisions of citizens, also affect the stakeholders' decisions.



**Fig. 9. The decision-making process**

As a general guideline, the decision process modeled by Günther & Scheibe (2006) for the development of a self-assessing hurdles tool for municipalities is taken also on this paper due to the similar goals pursued by both researches, the identification of hurdles and best practice during the procurement process. The decision making process is directly associated with the needs, wants, attitudes, beliefs and behaviors of a consumer,

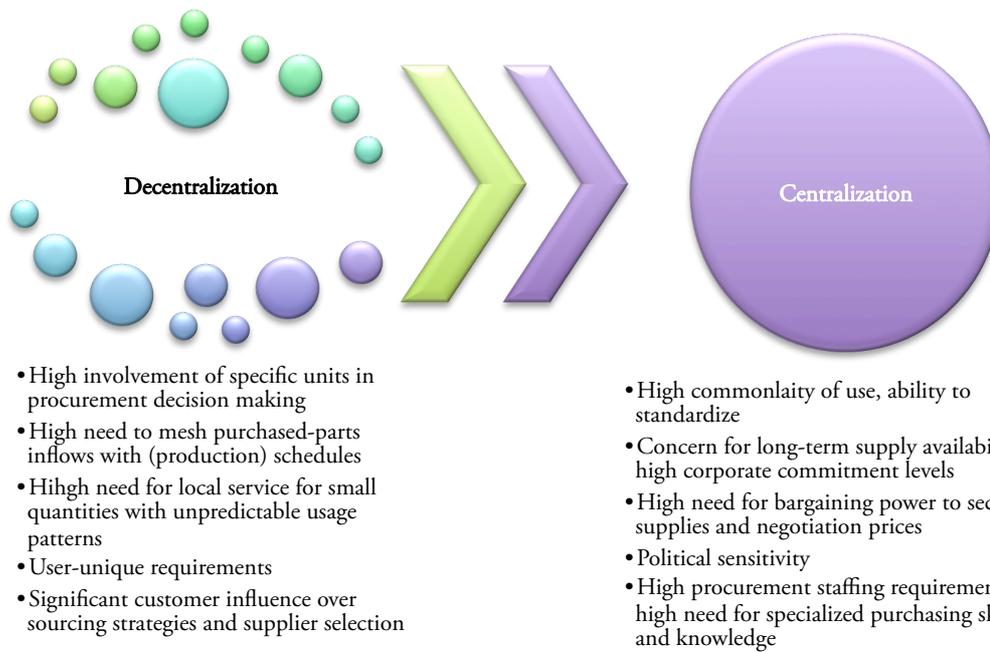
in this case a public caterer, under the problem solving. A behavior is defined as a combination of complex activities and procedures together with the actions, which govern the decisions of an individual. External factors like environment, interactions, ambience, etc. also impact behavior (Lee, 1983).



**Fig. 10. The decision pyramid**

Ultimately, a decision consists of different elements and their linkages (Heinen, 1976). For a public purchaser at a preschool context, the procurement process is usually a rather automatic procedure, 'consumption practices' that if not led properly towards the correct goal, might lose its potential on achieving key targets. Considering the aforementioned decision process model, the targets should be identified and settled, but most importantly, both individual and organizational targets must be balanced, reducing complexity and communicating key information. If this is not the case, the risk is that no gap is going to be identified hence no strategy to fulfill it or search for alternatives pursued. This next step, searching for alternatives, can be very time-consuming, requiring a logical evaluation of the identified alternatives; it might also be influenced by the presence of too many options or no suitable ones available. Next, the decision makers have to evaluate these alternatives, contributing with information and performing within the legal framework and considering specific criteria according to the fulfillment of the final target in order to come to a decision. Finally, the implementation of the decision has to be realized, several considerations apply during this step, for which is recommended to design a detailed program describing measures to be taken, assessing responsibilities, and fixing budgets and deadlines. A clearly identified hurdle at this level is the lack of straightforward establishment of responsibility. Moreover, during the whole process, the effectiveness and efficiency have to be continuously monitored, looking for feedback that is to be fed forward in order to improve the process. (Heinen, 1976;

Brookfield, 1977; Wittman, 1993; Altier, 1999). Concomitantly, integrating the organic certified products criteria to the purchasing process implies the adaptation of a new strategy affecting the different factors of the decision pyramid (Fig. 10)



**Fig. 11. Centralized vs Decentralized procurement frameworks.**

Corey, 1978

The decision pyramid shows that every element of the decision process consists of an interplay of different actors with different abilities and willingness to sustainable (organic products) procurement. The whole process has potential disturbances, hurdles, both result of internal and external overlapping interests and conditions. At the preschools operational level, these hurdles can be found at one step of the decision process or between steps, allocated within one department or among several actors in several departments, depending on the organization ruling each case. These can be brought by different biases, from now on called hurdle effects, which describe the potential influence that conditions within a municipality might have on procurement decisions. Such are complexity, centralization, demarcation, power, routines and commitment. The first two result from the number of involved actors or departments, power and demarcation are due to the interaction between these actors or departments (inter-elementary hurdles might arise here) and the last two are the effects due to the actors themselves (possible cause of intra-elementary hurdles) (Günther & Scheibe, 2006).

In some sense, these are the escalation of the hurdles from the overall administration context to the daily practicalities faced by individuals. Hence, the last two factors are the ones that have an actual impact on the processes within a department, albeit they can't be pondered without a previous evaluation of the overruling surrounding ones. That been said, a study of the repercussions of all hurdles effects, is necessary if a complete

understanding of the situation is pursued.

Once established the complexity of the system and whether it is centralized or not, together with the demarcation and power effects on the daily activities of preschool caterers, is now possible to take up the 'consumption practices' concept on a more appointed manner, of which procurement is a classical example since it is a process that is repeated often, a routine work, and as such, it characterizes a decision with limited alternatives. In this context, two kinds of routines can be identified:

- Organizational routines attached to legal or the entities' defaults hence have to follow the same scheme, and
- Individual routines that are the translation of personal values and preferences on every day particular activities<sup>14</sup>.

At the individual decision level, routines can be as determining as legal conditions and get even more important if changes are to be implemented, as in the case of the enactment of a policy striving for new targets. Incentives and perceived shortcomings, as well as personal targets affinity with the new situation all affect to the willingness to change positively regarding the subject in question (Günther & Scheibe, 2006). Concomitantly, commitment of leaders on the strategic level is directly proportional and reflected on the acting at the operational level. In general, every stakeholder can influence the decision based mainly on the following factors that are dependent on the individual's values and targets:

- Knowledge or the know-how every one possess
- Ability to do things
- Willingness or motivation meaning wanting to do things
- Permission to carry out things

According to Günther and Scheibe (2006) all aforementioned criteria can be positively steered by influencing individuals: knowledge can be taught, ability can be trained, incentives such as rewards and punishments can create motivation and clear guidelines strive permission.

Besides the contextual matters, other distinctive variances have been found to influence consumer decision-making. Ajzen's theory of planned behavior (TPB, 1991) indicates for instance that consumer intentions, highly influencing the final behavior, are co-determined by attitudes towards the behavior, perceived social pressure, and perceived control or self-efficacy; all of them based on the individual's relevant beliefs and evaluations. Additionally, consumer decision-making styles depend on age, gender, income, lifestyle, perception, personality, psychographic and geographic characteristics (Williams, 1990):

- Age. Finucane et al. says that as cognitive functions decline with age, also does decision making performance, concurrently older people may be more overconfident about their abilities at job hence present more unwillingness to

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<sup>14</sup> Schaffer, M & Wollmann H, 1989.

change (Bruin et al., 2007) plus show aversion to lots of options availability (Reed, Mikels, & Simon, 2008).

- Gender. Women generally make purchase decisions based mostly on emotions, while men go more with facts and data (Hunjra et. al., 2012).
- Socioeconomic status (SES), cognitive abilities (de Bruin, Parker, & Fischhoff, 2007; Finucane, Mertz, Slovic, & Schmidt, 2005) and the belief on personal relevance are strong influencers well. Regarding this last point, a study show that people vote more when they believe that their vote counts (Krueger, 2004).
- Loyalty and pride affect the process as well reflecting individuals' commitment (Günther & Scheibe, 2006).

Wrapping up, decision-making behaviors are subjected to a myriad of internal and external variables. Accordingly, a study carried out by Björn Wickenberg in 2004 regarding the implementation of GPP practices in different Swedish municipalities focusing on the central procurement departments and the negotiation of framework contracts found out successful implementation of GPP requires a firm will, the presence of norms, education and training and access and dissemination of adequate information.

# Method & Analytical Scheme

## Public Caterers insights & Open Coding

In order to understand public caterers' purchasing decision-making process comprehensively, a system thinking approach has been adopted in order to model the process per-se and identify current hurdles along the way. As the main research question exhorts the identification of the defining factors of the ultimate purchasing decision of preschool caterers regarding choosing or not organic products in the hope of developing best practice to scale-up the current achievements, the research methodology followed to fill this gap of knowledge and gather the required information was divided in two stages.

First, a desktop literature review was conducted. A number of scientific articles, governmental and NGO's reports, dissertations, best practice documentation, official websites of networks and organizations on the sustainable public procurement field plus blogs and social media data that touch upon the topics of sustainable public food procurement with an special interest on the school meals programs on Sweden context were collected. Basic statistics revealing the current situation of the city in general as regards organic products procured were as well collected via tools like Raindance and QlickView. The great variety of literature sources happened due to the limited availability of academic research on the sustainable procurement topic focusing on the Swedish school meals program in English, and also as a resource to get familiar with the general context, cultural aspects, overall practices and local customs related to the Swedish inherent behavior. In other words, this initial collection of data was performed with an explorative approach with the primary aim of "getting in" to the field under study. Once a deeper, more complete understanding of the context and implications around the topic in question was achieved, the second phase of the research could take part. This newly acquired knowledge allowed for the formulation of different questions for qualitative interviews to happen on the next stage.

In order to collect empirical evidence regarding the insights and experiences of public caterers and other pertinent actors influencing the procurement process of organic and more sustainable foodstuffs for the preschools meals in Malmö, semi-structured interviews were conducted. The prevalent intention of the interviews resided on the identification of the process steps and the collection of the cognitions and rationalities of public serves around the Policy for Sustainable Development and Food, and its implications regarding organic products selection over conventional ones. To gain complementary insights that allow for a systemic vision of the process, since it was recognized during the first literature review that this was the best approach to take due to the nature of the case under study, the interview respondents included several public

servers at different stages of procurement with activities potentially influencing the final results of the purchasing process. This comprised Malmö City Environment Department staff, Environment Coordinators of different city districts, Head teachers and preschool's catering personnel.

Based on the research purpose and in order to gain objective first-hand procurers perceptions and cognitions, the method of semi-structured qualitative interviews was chosen because they allow the respondent the opportunity to answer freely, reasoning relevant aspects for the investigation (Patel & Davidson, 2002). Objectivity and a neutral position, avoiding the demonstration of emotions or judging answers are important qualities of the interviewer (*ibídem*). This kind of data collection consists on a guideline of themes to be covered rather than a standardized questionnaire, allowing for a later comparison of the answers related to the same topic (Krag Jacobsen, 1993).

For the preparation of the interviews, a prior review of the techniques was conducted. An interview guide was designed as a means to ensure that all meetings evolve around the same themes. According to the development of the meetings, the guiding questions were followed and adapted depending on the themes covered by the answers given by the respondents; frequently, some questions had to be rephrased or introduced depending on how much respondents elaborate on an answer (Patel & Davidson, 2002; Solér, 1997). The previous research of the field is proven to be transcendent at this stage, since the ability to engage in the world of the interviewee, being familiar with certain concepts embedded on the context and recognizing the various nuances of the answers is key for collecting the correct type of information. A prevalent underlying maxim of 'do not think you understand until you know that you understand' (Trost, 1997) was adopted, even if that meant that some questions might seem repetitive or pointless.

To document the information the meetings were recorded, previous agreement of the interviewee, to keep better track of the insights and also to avoid distractions during the conversations, allowing for complete attention to the body language, intonation, and general reactions of the interviewee; unspoken answers that are as well vital for the later interpretation of the information. Some notes were taken if considered appropriate, but generally avoided not to bias the responses. A transcription of the key answers was later carried out.

The sampling methodology was based on the statistical results available through the Environment Department reports, showing the district's performance as regards organic foodstuffs purchased on previous years that allow for the identification of the districts with better results so as rocketing ones. Based mainly on this information, a second approach to Environmental Coordinators on different city districts allowed for a closer view of the situation, and served as a bridge for contacting cooks and preschool personnel. That been said, the interviews showed the insights of procurement participants from different perspectives; however, the study does not represent a statistically representative analysis of the entire preschool catering sector in Malmö as such, but rather provides a deeper understanding of specific conditions of outstanding examples. Moreover, critics of the qualitative interview as a research method argue that it is insufficient as regards scientific relevance, objectivity and quantity; however, quoting Kvale (1997), the purpose of this research method is to interpret meaningful relations,

creating knowledge as a result of observations and a deeper understanding of the individuals.

The information gathered through these interviews resulted in large amounts of detailed data, contextually skewed and subjective to the individual's values, and personalities. In order to work with this myriad of information, the analytical approach chosen is described on the next section.

## **Open coding and Best Practice**

As a result of the previous findings stating that no universal valid strategy can be designed for the myriad of contextual dependent processes adopted on each case (Günther & Scheibe, 2006), it was decided to analyze the information on a way that allowed to link the already found general hurdles and opportunities to the ones encountered on the best performing cases of the city of Malmö. This with the intention of understanding the overcoming process of hurdles that might be still recurrent on other districts, and with the belief that due to the resemblance of conditions, at least considering a general background and legal framework, the strategies implemented on the outstandingly evolving districts can be translated and successfully implemented as well on the not that sprouting ones.

Open coding was the analytical tool chosen to examine the responses in order to identify key and repetitive themes regarding barriers and facilitators during the procurement process in general. This process helps in the generation of categories due to its interpretative nature, including the perspectives, voices and terminologies of the involved characters. It can be described, in the words of Strauss and Corbin (1994) as:

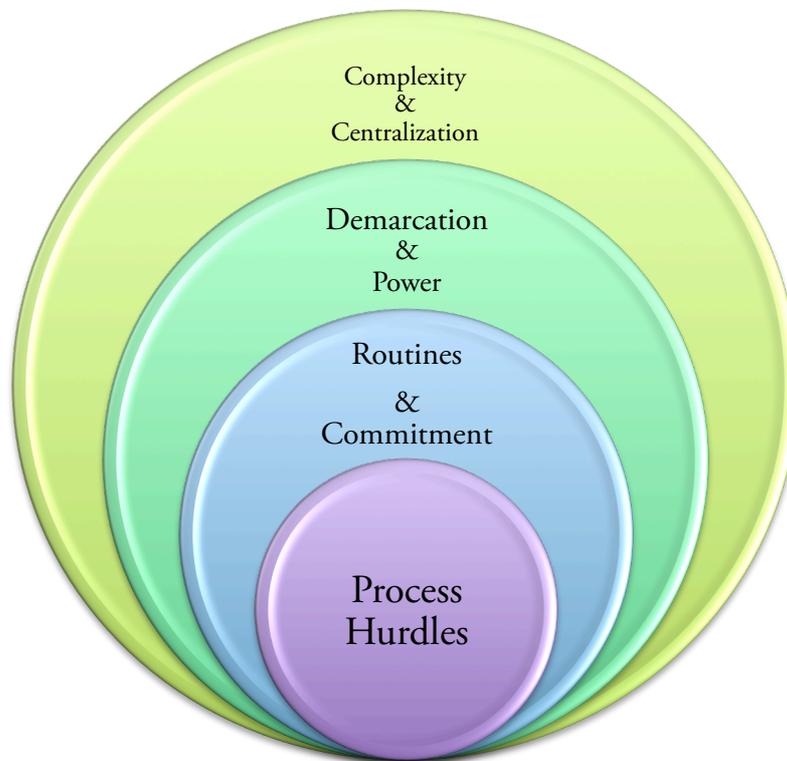
*“Breaking down, examining, comparing, conceptualizing, and categorizing data”*

The qualitative data is then integrated and compiled in a way that allows for a clear connection with previous findings. With this purpose, the 7 most common hurdles encountered by the British National Audit Office regarding the implementation of SPP policies or practices were taken as a starting structure embedded within the different stages of the decision-making process; which simultaneously is evaluated considering the overarching hurdle effects influencing the preschool caterer decision as a whole, identifies by Günther & Scheibe. The classification of the hurdles encountered on the city of Malmö through the qualitative interviews are linked to previous findings of the following studies:

- The translation of sustainability into public procurement practices in 3 Swedish Municipalities (one of them Malmö) carried out by Björn Wickenberg in 2004.
- Consumer decision-making with regard to organic food products that considered the case of Sweden by John Thøgersen in 2006.
- Managing procurement of food with added value: a case study of beef in catering sector which included the analysis of procurement decisions in Malmö's public catering sector towards organic beef by Hanna Astner, Ingrid Stigzelius, Hans Andersson and Cecilia Mark-Herbert in 2011.

- Environmental information in the food supply system by Christian Fuentes, Annika Carlsson-Kanyama, Anders Biel, Charlotte Lagerberg, Helena Shanahan, Cecilia Solér and Gunne Grankvist conducted in 2006, and
- Nordic stakeholders and sustainable catering by Anna Post in 2011.

Since identifying hurdles at the local level without considering the environmental factors will result pointless, a systemic perspective is kept thanks to the considerations embraced through the analysis of the hurdle effects influencing the procurement process at the preschool level.



**Fig. 12. Systematic Analysis scheme**  
Hurdle Effects and Process Hurdles relation

## Reflections & considerations

As hopefully can be noted from the further reading of the results and discussion section, the findings are inherent to volunteer respondents from specific cases identified as outstanding, hence may to some degree be more interested in or engaged with sustainable procurement than other public sector members. Also, language and cultural barriers represented an interesting challenge that will further skew the sample and produce some, hopefully minimal, level of misinterpretation.

The selection of only good policy performing actors together with their (limited) number considering the total population, have a somehow limitative side effect for the interpretation of the findings. The number of participants in the analysis provides for a skew and limited insight of the very complex interplay of actors; therefore, the picture of hurdles and prevalent procurement conditions cannot be absolute and representative.

Nevertheless the combination of the gathered information and the assessing methodologies gives a meaningful picture on the decision-making process regarding organic procurement and therewith-related hurdles and it can be taken as a starting point of discussion for specific cases within the municipalities. The analysis does not cover external conditions like market neither includes the perception of the participants of this field, and it only concerns legal conditions to a certain extent relevant for the individual caterer world.



# Results & Discussion

## Hurdle effects & the procurement process

*“...[Unfortunately] the ‘Green State’ debate often tends to sacrifice the particularity of the concrete for the generality of the abstract. After all, it is at the level of the concrete –in the seemingly prosaic decisions that are made in public services like school food- that the real tensions between quality and cost are played out. If the ‘Green State’ debate is unable to engage with this concrete realm, to shed light on the present and to make hope practical for the future, then it will cut itself off from the warp and weft of everyday life and will foreclose the options for change for its communities. ”*

The School Food Revolution, Morgan & Sonnino 2006

This section will discuss the empirical findings resulting from the qualitative interviews and the literature explorative research. It was the aim of this paper to center the attention to the identification of hurdles and enablers of the procurement process carried out by public caterers in the preschools of Malmö; applying the findings on a practical way in the hope of finding strategies to alleviate as well the struggles faced by similar public servers in other parts of the city.

The strategy adopted to compile the large amount of information gathered follows a structural scheme related to the influencers of the decision-making process studied on previous chapters. The implementation circumstances, both hurdles and enablers found, related to the decision-making of the public caterers as regards organic procurement are identified embedded within a framework of hurdle effects as noted by Günther & Scheibe (2006). Commencing from the overarching implications of external milieu influencers resulting on Complexity and Centralization, the analysis moves forward to the determination of the degrees in Demarcation & Power along the process in order to finally reach the effects of the former in individual associations due to Routines & Commitment.

The main objective of this approach relies on understanding the resolutions of public caterers as the result of a process highly influenced by both their own cognitions, attitudes and beliefs projected on the implications of the routines and commitment, so as those of the surrounding environment due to the outcomes associated to the reimagining hurdle effects. Since it is considered that the study of the caterers as isolated entities would deliver very limited results, this systemic view is preferred since it allows for an exhaustive

analytical framework, one that enables an easier visualization of the connections and dynamics between procurement participants.

## A complex issue

The complexity related to the decision structure influences the number of targets, their hierarchy, possible conflicts and the place where decisions are made (Günther & Scheibe, 2006). Like in any given process, the more people involved on the decision, the more difficult is to reach consensus.

As a starting point, and before entering the practices and hierarchies within the microcosms of preschools themselves, it is important to denote that Malmö's preschools are subjected to and embedded into an elaborated organizational flowchart. In general, a neighborhood, which is headed by an 'Area Manager' (Områdeschef) operating under the supervision of the Children and Youth Head of the given district, is divided into 3-4 school regions. Each region is similarly divided onto a number of preschool areas led by a preschool head. The preschool area head alternates his/her time between the different preschools under his/her supervision.

In order to make a clearer view of the organization previously described, a diagram of the Centrum District, focusing on the Pauli area in Malmö is presented (see Fig. 14.). Other actors involved on the policy for sustainable development and food implementation, that are also contributing on the intricacy of the scheme regarding policy implementation, are not shown here but have to be pondered for the implications of this section as well, since their perceptions are reflected altogether on the analysis. An important hurdle resulting from this starting context that has been found in theory is supported by the comebacks of the procurement's stakeholders of Malmö preschools and is presented following.



Fig.13. Organizational flowchart of Pauli area in Centrum District

It has been noted that a high complexity, which is directly proportional to the size of the municipality, is also directly related to the information/communication hurdle of the procurement process (Günther & Scheibe, 2006). In the municipality of Malmö, the third largest in Sweden and with a growing population including of course toddlers and youth, this seems to be true also. Respondents at all stages of the process showed different interpretations, rationalizations and adoptions of key concepts such as sustainability itself. This is generating a myriad of approaches regarding organic food procurement at the preschool level. Some respondents even boldly stated that communication was not effective, and were completely aware of the fact that their managers did not share their views. The next step of the ladder, the voices of the preschool's heads, subsequently pointed to the leadership of the upper box in the flowchart; which shows the overall belief that a stronger leadership from the top will definitely facilitate the whole implementation process, while agreeing on a lack of consensus resulting from futile communication.

It was identified as well that ineffective communication influenced the implementation strategies of the policy altogether producing conflicting messages between catering staff and authorities. Especially in financial matters this question shows important implications: the paradox of being forced to purchase increasing amounts of organic foodstuffs that are perceived as more expensive, but without an increase in the budget seems to be the most significant disagreeing. While preschools see this situation as unfavorable, authorities suggest an approach of reducing meat utilization (a heavy duty for a country strongly attached to meat consumption) as a mean of balancing the extra spending on organic products.

With the purpose of spreading this kind of advices so as other concepts related to vegetarian meals and the overall impact of food practices on the environment, "open courses" have been designed by the Environment Department, which has found this as their way to favor the attitudes towards organics by the municipal caterers. The courses are announced on the department's webpage and any cook working in the city is free to join, leaving the decision to assist as a personal choice. Direct invitations to preschool caterers are also usual practice, either directly or through their managers via email. Some more structured courses, the district courses, are planned upfront with different district areas under previous agreement with the preschool area head and unlike the open courses, this ones are compulsory for preschool staff in general, not only caterers. A previous study on the results of the shift on perceptions by the courses participants show a wide variation on the number of people attending depending on the district. This was explained as an environment department constraint due to the limited number of people working on the courses organization.

Another effort undergone by the Environment Department consists on the negotiations and constant dialogue with the procurement department in order to make available more organic suppliers on the lists, and most importantly, to remove the conventional products options whenever there is an organic product available; a situation that represents an oxymoron itself, potentially creating confusion and distress to the caterers at the moment of procurement. Even when this situation has to be considered individually, it has to be dealt at least with products that already represent good alternatives financially, environmentally and quality wise.

Despite the adversities, the typical connotations that the participants show during the interviews regarding organic products were, as expected, very positive. Overall, it was perceived that the stakeholders at the different levels have good knowledge of the basics of organics, insights that become more theoretical and elaborated as moving upwards the organizational flowchart. The cooks interviewed were well aware too of the theories, however, when asked about their opinion regarding the impact of their decisions, the translation from theory to the practical and real-life consequences, their personal relevance on the supply chain was not considered to be as transcendent, neglecting the power that their actions have on shaping the whole system and otherwise granting greater importance to the actions of other stakeholders. This diminishing perception (preschool's staffs recurrently acknowledged being at 'the bottom of the pyramid') of their actions has been acknowledged to be a determinant of behavior: the greatest we think our actions impact on the final outcomes, the fiercest the will to behave on a certain way, and vice versa (Krueger, 2004). This also speaks about the communication strategy that perhaps is not approaching this specific audience with the adequate message of the consequences of procurement at preschool level.

Additionally, it was perceived that even when the theoretical notions of organic products concerning the environment were familiar, practicalities and pragmatic perceptions were stronger influencers at the moment of purchasing itself. This suggests that in reality, currently the actions taken towards increasing organic products on preschool kitchens result primarily from organizational pressures rather than personal beliefs or preferences. If this is the case, communicating effectively the goals pursued and the means to reach them is even more crucial (Post, 2011).

Another overarching aspect of the system is the lack of transparency as regards the allotted budget for food procurement. It seems to be that this prevalent lack of openness is only eradicated unless individual efforts of the school cooks or the person in charge of the procurement, who have to be proactive and carry out the pertinent investigation so to be more in control of their own tasks, another important aspect determining attitudes towards a specific behavior (Ajzen, 1991).

In general, this starting overview should provide a background of the system's conformation and the overarching implications they entail. Even when the decision process is attributable to the caterer, it can't be neglected the influence of other relevant participants, for instance, the procurement department that has to make available adequate alternatives for the caterers to choose from, the economic division that has to provide the pertinent information regarding the budget and the environment department in charge of inspiring and stimulating stakeholders spreading information. Particularly considering communication and information efforts, it was noted that despite being successful on spreading the message of organic products and their benefits as whole (of which interviewees were well informed of), it seems to still exist important gaps on inter-department communication strategies which according to literature, are of utmost importance for successful policy implementation.

## **The dilemma of centralization**

Due to the high degree of decentralization resulting from the organizational autonomy allowed to each city district, preschools adopt their own management philosophy according to their individual aims. Theory says that central coordination becomes even more difficult as the municipalities are regionalized bodies where each entity has a high level of autonomy; hurting the implementation of sustainable procurement policies that are often thwarted by the devolved form that procurement takes in many public sector organizations (Günther & Scheibe, 2006). For instance, in Malmö no compulsory common operating framework exists for preschools as regards the procurement process, instead, only guidelines and recommendations can be consulted in case of needed.

That been said, considerations attached to this organizational approach lead to the inevitable comparison between the implications of a centralized versus a decentralized management system. This discussion becomes timely accurate since the city administration regarding preschools and city districts is about to change starting July 2013, so the current scheme might as well be modified correspondingly, perhaps being subjected to new guidelines modifying the general practices within the institutions. As part of this research, and since any pertinent findings will be relatively inconclusive or at least with a very short validity without considerations of this new arrangement, the opinions of a potential centralized administration in order to standardize the menus and in some way, minimize the burden that decision-making could imply for preschool staff were approached during the interviews in addition to efforts to meet with personnel that could provide deeper insights on this matter.

The answers in this regard varied widely depending on the interviewee task: centralization is viewed as a convenient measure in some sense, lessening the load of developing an effective communication strategy for a broad and varied audience, but at the same time allocating a high level of accountability to a reduced number of stakeholders, which opposes the Swedish philosophy of reducing as much as possible the gap between decision-makers and private individuals as mean to strive for democracy, one of the *raison d'être* of the districts administration in Malmö.

Among the preschool cooks; however, consensus was reached in the sense that, even when this homogenization is perceived to potentially facilitate the attainment of the goal, it also entails a threatening decision, limiting the creativity and freedom of the menu's design, restricting proactivity for those that enjoy adopting innovative solutions while lessening the autonomy that cooks currently enjoy. It is important to mention, however, that these conclusions are drawn from the responses of 'above-the-average' committed cooks, proven via the performance levels of organic procurement of the preschools they work in. Paradoxically, in some cases it was acknowledged as well that a standardization of the menus and a central procurement process could be beneficial in the case of 'less-committed' cooks.

According to the information obtained, the newly created Department for Physical Environment will be handling any matters concerning the coordination of food in Malmö preschools; yet, since by now the department is in its infancy stage, no further information concerning how the establishment of this new authority will impact on the

implications of the procurement process was obtained. Still, the creation of a specific department in charge of preschool management reflects the singular concern the new administration will pay in this area, most likely because of the increasing demand that the city of Malmö is currently experiencing on the utilization of this service, a phenomena of which preschool's personnel is apparently quite aware of stressing the fact during the interviews. Even when no further asseverations can be drawn from this information, it can be assumed that the designation of a specific department with a clearly appointed responsibility as regards the policy implementation performance will positively impact on the future results of the city as a whole.

It is noticeable that the decentralization of the preschool catering service implies performance variations in all the different parameters that this service entails. Engagement with sustainable procurement practices varies across districts as a result of autonomous administrations that even when subjected to a common compulsory policy, show different levels of leadership and support depending on their individual circumstances. However, decentralization of the preschool catering service also means greater public participation in a topic as important as the food to be served to the most vulnerable sector of the population. Centralization could mean the blind obedience of certain norms and rules following the potential attainment of a goal as a number, but in order to create a truly sustainable society the true change has to come from the citizens themselves. In other words, if the 20<sup>th</sup> century welfare state took human behavior as a give, the 21<sup>st</sup> green state will have to try to design policies with its citizens, in a shared endeavor to promote more sustainable modes of working and living.

### **Demarcation & Power Issues**

Findings at this level suggest that the degree of demarcation of obligations regarding the implementation of the policy is not sufficient. All participants regard themselves as players, but when it comes to accountability for results there is not an identified entity. Power issues could arise during the determination of the tasks aiming at coordinating the policy implementation players, especially if responsibility is not clearly established beforehand, which seems to be the prevalent situation for Malmö's preschools.

This represents a problem in the sense that any pertinent efforts to inspire and motivate procurement practitioners at the preschool level might not be well designed if the target audience receiving the message is not clearly identified. Along the interviews, it was evident that there is a gap of knowledge considering procurement process by the ones with the assigned task of providing support and assistance for the preschool personnel. A lot of uncertainty as to who is the character doing the procurement and how this process takes place was identified, hence, if they don't know whom they should approach, since the procurement can be done by practically any of the preschool personnel, it is expected that the efforts invested on instilling sustainable procurement practices result unfruitful. Some district servers have addressed this problem by increasing communication with preschools representatives and also trying to get as close as possible in contact with the actual purchasers. Then again, this is a matter of personal interest and motivation.

The implementation success of this policy then seems to rely on the combined wills of “self-governing subjects” working towards a common goal, but without agreed liabilities on how to reach it, which is crucial for relieving hurdles. The discussion on the division of responsibilities in different dimensions, from general assistance to providing knowledge and training, was identified as an on-going process; moreover, when questioned about who to approach in case of need, uncertainty predominated.

## **Routine and Commitment**

This section will deal with the organizational and individual routines that impact public caterers procurement decisions, and that are largely defined by the influence of authority figures, individual targets and existing conditions. Following the steps of the procurement process, the hurdles that have been identified as the main obstacles for sustainable procurement are analyzed.

First of all it was identified via the interviews that the cooks attitudes towards organic products strongly impact the outcomes of the policy. For this reason, the process of hiring the cooks was investigated in order to find out which were the criteria requested for this position. Even when the cooks are hired by the municipality, the hiring process largely depends on the Preschool Head, who has to post an add specifying the requirements and tasks expected to be covered and does the final selection. A further investigation on this kind of openings descriptions was carried out on [www.offentligajobb.se](http://www.offentligajobb.se) in order to get an idea of the general requisites. Alas, not many posts were available at the time, hence providing a very constraint view of the requisites; however, the general response regarding this issue point towards an unstipulated process that can comprise variable requisites, highly dependent on the Preschool Head intentions, overall some previous experience of working as a cook is valued.

However, the outstanding organic buyers preschool heads acknowledge the importance of hiring a skilled cook: *“it is necessary to have a good cook who makes the right priorities to achieve the goal,”* they say. It has been further recognized that injecting professional cook experience into school kitchens may be even more important than the extra money many advocates assume is the answer to rehabilitating school food’s reputation (Bruske, 2011). In fact, when asked about the budget available for buying the ingredients, as it has been stated before, most of the cooks are not aware of this figure and declare that it doesn’t really matter as long as they don’t receive negative feedback regarding surpassing the (unknown) limit. It has been also noted that cooks proudly declare that is not about buying the most expensive products, is what you do with the ingredients what really matters; furthermore, as opposed to minimally trained staff, professional cooks possess the knowledge required to ‘cook from scratch’, skills that certainly help on economizing with key ingredients when buying, reusing, preparing and even storing to make them last longer, for instance.

As obvious as it may seem, this inherent ability and pleasure to cook is still overlooked in certain cases during the recruitment process of the preschool catering sector. When it comes to the cook’s attitudes towards organic products, knowledge of vegetarian dishes and cooking according to season, all of them matter since they will inevitably influence

purchasing decisions. These only comes with certified training or as a result of personal interest on the subject, either or it only makes sense to request them if they are expected to be applied afterwards. For this reason, a consensus and adoption of a compulsory job description together with the fundamental requirements to fulfill the position properly can signify future improvements. The chain reaction that this mere 'raising the hiring standards' holds goes far beyond the quality of the food served, promising a positive perception shift of the Swedish society towards the public meal and potentially improving the status of the catering personnel.

This last point seems to be of high relevance. In Malmö, as in the rest of the world, the cooks in schools and preschools have a low status within the society. Low pay, high labor turnover, accidents and absenteeism (Lucas 1996; Hurst 1997, Gabriel, 1988) have characterized this sector. These conditions lead to low self-relevance and lack of confidence, both of which have been identified as major determinants of decision-making and potential hurdles of sustainable procurement implementation. Moreover, catering staffs don't consider that their decisions are indeed having a considerable impact on the environment. A respondent stated that the percentage of what he does is nothing compared with the people doing the food production or the procurers, for instance. For this reason, a systemic view, one that allows for the visualization of the whole chain, portraying the power and consequences that purchasing has, is of utmost importance. If preschool caterers are not aware of the chain reaction of their procurement decisions, then they might as well not change their current practices towards greener choices.

Among the interview participants this regretful situation is well known; they recognize that favoring organic products might arise as a consequence of higher recognition and appreciation of the cook's work. Fortunately, as concluded from the cook's answers, the attention that has been drawn to the sector since the policy enactment has lifted their status in the society altogether, bringing acknowledgement to the true importance of their jobs. Leith (2007) is worth being quoted here, since he succeeds encompassing this whole issue on a statement:

*"Caterers have to be sales and marketing people now, as well as craftsmen, nutritionist, people managers, accountant and social workers! School Cook, or Dinner Lady, or even Catering Manager, hardly describes the job"*

Moreover, individuals rather than teams carry out these tasks, and at least in the cases of the interviews done, is a service targeting 80+ people. The caterer is responsible for designing the menu, administering the kitchen resources, sourcing the provisions, serving, cleaning and of course, cooking. It is expected to have a wide variety of nutritious, tasty and sustainable designed dishes resembling homemade food on a tight budget. Nonetheless, the design of the menu was quite enquired since it was considered that it was here that the underlying reasons determining the further procurement choices were hidden.

At this stage some degree of practical implementation of the policy concepts that the caterers (in these specific cases, through participation on "open courses" given by the environment department) have received on the selection of the dishes was identified. In all the cases the preschool cooks have chosen at least one vegetarian menu per week, one

soup day, and in some cases 'meatless Monday' was a part of the course as well. Seasonality was not identified as a determining factor, neither specifics such as the reduction of greenhouse vegetables procurement (such as tomatoes or cucumbers) or the substitution of meat by pulses. In addition, organic products are regarded only as a means to comply with a requirement, but are not necessarily considered as high quality products with certain beneficial characteristics or improved organoleptic features in general.

The prevailing perception of the cook's considerations regarding the selection of the menu is that for them this is an enjoyable task that provides the opportunity to actually apply their abilities as cooks, their creativity and talent. In some cases they went on the extra mile organizing additional activities related to food, such as herbs gardens or 'international food' festivals; indeed, they refer to these activities as opportunities to fight the monotony and the routine, which in itself speaks out loud of the commitment and involvement invested on their jobs.

These initial internal conditions of the procurement decision-making process, should serve as a framework for understanding the following findings as highly contextual and individual's values defined situations.

#### *Identify the target*

Information and Awareness, Knowledge, Leadership and Inertia all are identified barriers at this level of the procurement process in preschools.

To begin with, no real change can be triggered if a gap on the current versus the desired situation cannot be identified. The cooks were not aware of the policy enactment, even when they recognized the goal of 100% organic and the adjacent implications of good environmental practices, they were not relating these actions with an specific policy. This might seem irrelevant if in the end the final aim is being pursued, the cooks interviewed were the ones with the highest levels of organic products purchased anyway; however, if real change and motivation to do things out of personal conviction is the end (which should be if a truly sustainable society is to be attained) information has to be properly diffused.

Leadership plays an important role in the form of clearly stating the importance on a sustainable approach to the meals by the preschool head. Environment Coordinators make this point clear, saying that is in the hands of the 'managers' to make the cooks act, since they are the ones holding the position of authority and determine in the end what has to be done. It was also appreciated that the preschool head individual commitment with the subject was a strong determinant indeed; yet successful implementations were also identified even without explicit support from the managers. However, the desired scenario obviously includes a sustainable committed team so communication strategies should target both levels.

This leads to the statement that policy implementation success depends strongly on persons with motivation, not necessarily on the protection of the environment, but on quality food for the kids. When asked why it was important for them to buy organic, the consistent arguments pointed towards health reasons, protecting the kids from pesticides found on regular options. There was also a certain motivation driven by the increasing

attention that the parents are paying on the meals served to their children. A preschool director declared that food was an important deal-breaker for parents at the moment of choosing institutions and that some of them approached the school due to its good meals reputation.

It was noted as well however, that other drivers can lead to a significant amount of organic procured, such as personal ambitions of outstand or just as a mere obedience to a direct instruction. In these cases, the organic food was not even considered of quality, stating that some organoleptic problems were found on the produce, having even to return the products to the suppliers. Cautions and incredulity about the real benefits of using organic instead of regular were also presented. The social dimension of sustainable procurement represented pragmatically on the fair trade certified products was not even mentioned during discussions of sustainable food, so it can be deduced that they are not associated as a target of sustainable procurement, though they are still importantly purchased. Due to the nature of the cases studied, inertia was not very prevalent in these scenarios since the cooks had a strong appetite to change and adapt even if it was induced by different reasons. However, at this level the inertia effect enters into action affecting the daily routines of the preschool cook, and defining their willingness to start realizing if there is something different they can be doing in order to reach sustainable food procurement.

#### *Search for alternatives*

Hurdles related to cost, awareness and information of sustainable options, risk and legal issues were denoted at the stage of alternatives searching.

The procurement procedure of the caterers varied on each case; however, they agree on the fact that it is a recurrent task of their job activities that took important part of their time due to the thorough procedures it required. The procurement is done through Raindance<sup>15</sup>, the financial tool used by the municipality to administer the ordering procedures. It is through this tool that public servers have to look for the options, select them and enter the final order. Besides Raindance, there are also a number of different suppliers catalogues depending on the products wanted through which servers can look for products, of which later on they have to access their codes in Raindance to do the actual buying. It was mentioned that this procedure is time-consuming and it can generate frustration since sometimes the products that are available in one tool, are not in the other, or if they are, not with the same characteristics.

Looking for options was also a matter subjected to special offers available, which had to be on a certain way hunted specially considering organic products on sale; the cooks knew that if looking properly good deals could be found balancing the overall cost and still procuring organic, but of course this requires patience and time.

The reasons can be found on the procurement tools, the caterers interviewed, despite having some significant amount of experience in the field, still considered Raindance

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<sup>15</sup> Raindance is a Web-based business application for financial administration and e-commerce focused on administrative processes. Raindance can be used to fully integrated solutions for financial management, electronic invoicing, electronic trading, reporting and analysis, budgeting, forecasting and project management. The ERP system can be integrated with all types of systems.

interface as not very user friendly when it comes to looking for options, complaints about the visibility of the product characteristics and availability was recurrent. With this aim a method for facilitating the identification process of organic products is in place and consists on a dots system: the ecological options are accompanied by a green dot. This method was well identified and linked to the organic foods by the caterers, but when asked to show the functioning of it, to actually go to Raindance and look for the organic versions, it took them some considerable amount of time to find the options. Moreover, gaps in the identification of the products exist: one cook is procuring foodstuff that is actually organic, but not recognized as such in the system, situation that bothers him since he recognizes that this could make a difference in the overall organic purchase level of his preschool. However, he is aware that a phone call can change this situation, but argues to be too busy to remember to make such procedure.

About the easy identification of the desired products and their availability, organic chicken was brought to the discussion, since it is common belief that there are no available alternatives to procure. This can be considered as a lack of information and awareness hurdle, since according to official information; there is the option of organic chicken, yet the purchasing has to be done through a different system other than Raindance. This of course is a situation that either has not been well informed or the efforts have fallen into empty ears, due to the apparent extra effort and confusion related to what is allowed versus what is not allowed to do, so risk and legal issues play as well a burden in this sense. Indeed, caterers stressed the importance of doing all the purchasing only through Raindance tool, so perhaps the implications of using a different system to secure organic chicken poses a fear of going against the rules. A clearer identification of the procedures and options available will ease these burdens considerably, since as found in previous research, low availability makes it difficult for organic consumers to act on their intentions (Ajzen, 1991).

Moreover, mapping the process and describing it as a general guiding proves to be useful for several reasons. Realizing the steps taken when carrying out a task allows for a more critical view of our actions and the underlying reasons behind certain behaviors, which can help in the improvement of our performance, in addition, a control of the process can be helpful in case someone else is taking over the activities of the caterer, for training, or just for consultation. This situation was observed on two different cases related to the imminent absence of the cook, who normally possesses all the knowledge regarding procurement and general kitchen procedures, and whose departure signify that a third person, probably with no cooking skills whatsoever and no information about the overall procedures, would take over.

In general, the search for alternatives stage is considered as time consuming, specially when it comes to foods not very commonly procured. Raindance has a system of recording the products lists that have been purchased before on which caterers rely to procure the regular staples easily and faster. But this can also signify that for some products that are already in this list, and that are not organic, are being automatically purchased without further looking for ecological alternatives. Inertia takes over once again, obstructing sustainable procurement.

An interesting point worth being mentioned is the fact that when searching for alternatives, caterers find somewhat shameful that they can't procure the produce

available conveniently in local nearby stores. It was mentioned that the products there, even when probably without an organic certification, were good quality and local, rather than some ecologic options procured through Raindance that came from long distances and were disappointingly low quality.

#### *Decide on alternatives*

Once the alternatives are identified, the decision per-se of whether buying or not the organic options was recognized to be affected by several factors, that rather than being isolated and easily categorized under a certain tag, are more likely interweaving and connecting one another with internal and external elements. Cost, knowledge, awareness and information, risk factors, legal issues, leadership and inertia are all presented at this stage sometimes adding up on specific circumstances and steering the decisions of preschool cooks depending on their individual values and attitudes.

The most salient determinant being recurrently mentioned in the interviews unsurprisingly is the perceived extra cost that involves procuring organic instead of traditional products. Indeed, as identified in numerous previous researches, price is a major control when deciding on organic, having more dramatic influence on a public institution context characterized by constraint resources. A study, for instance, indicates that while people as private citizens are prepared to act on their environmental values, these values are less important when they act in their role as private employees, since in a public institution running with state money, decisions on how to spend the allotted budget carry a lot of pressure on the practitioner, responsible of making the most out of the available capital (Nilsson & Biel, 2005).

Thus, the positive attitude associated with benign environmental consequences may be over-ridden by considerations about price or taste. A study by Magnusson et al. (2001) showed that although consumers associate organic food with positive environmental consequences and a more healthy product, they also believe that organic alternatives are more expensive and do not taste better. For a public caterer, then, the positive attitude towards organic food is surpassed by a more positive attitude towards regular products, mainly because of a lower price and not significant quality differentiations. Additional disbeliefs on the health benefits of organics play an important role here as well. Further studies centered on public institutions constraints on sustainable procurement highlight the perception of organic options as more expensive than competitor products that couldn't find a place on the restrained budgets (Min and Galle, 2001).

In fact sustainable procurement is a lot about defining the 'value of values' (Morgan & Sonnino, 2006); however, identifying 'best value' is more of an art than a science resulting on a procurement process commonly characterized by a lack of consensus in the definitions and a systemic tendency of masquerading best value with low prices (Post, 2011). In order to better define the best value, suitable measures for a holistic evaluation have to be implemented so to allow follow-up costs into account during the decision-making process; furthermore express upper management support, needless to say, is crucial to avoid price-only competitive criteria. This seems to find a fertile ground on the preschools in Malmö, whose caterers are found to be concerned about the health and development implications of kids' adequate nourishment. Therefore, stronger connections implying buying organic products can be stressed during communication

campaigns in order to further impact the attitudes formed on caterers regarding organics. Indeed, cooks mentioned that 'poisons' in the regular foods are not supposed to be given to children since they are on a developing process and do not possess the same defense mechanisms as adults. This coincided with the results of a study regarding the factors affecting attitude formation towards organic products, identifying beliefs about health, taste and environmental consequences as stronger influencers than cost for instance (Thogersen, 2006). Another long-term evaluation from a preschool head recognized the enduring impacts of his job, stating that an attractive lunch was essential to raise successful citizens, who in the end represent the working force of the future shaping the economic conditions that will determine whether his pension will grow or not. This addition of wills from both the preschool head and the cook results on a powerful team that can potentially shape a truly sustainable society.

Besides the financial matters related to the premium attached to organic products, another important determinant of the decision identified was the convenience factor. Preschool cooks are undertaking tasks to feed large amounts of people usually by themselves, with little, or no help. Convenience hence plays an important role in the daily activities of the cooks, who seem to be overwhelmed by the amount of tasks under their responsibility. Cooking from scratch was mentioned to be a challenge, that even if they were willing to comply with, there was not sufficient time to do so. Frozen organic vegetables are considered as a good alternative to ease this issue even when fresh foods are the most ambioned. This has been recognized as a constraint, since little pre-processed organic options are available currently; yet the environment department has already considered this aspect as a strategy to attain the goals of the policy. Convenience is also portrayed in the sense of buying products that are easy to store and with longer shelf lives. Cooks are faced with limitations regarding adequate storage places for the highly perishable fresh organic foods, so this also represents an influencing factor during the decision. Long lasting products like apples are preferred in this sense in an effort to avoid food waste. Additionally, the overall kitchen skills of the caterer find here the ultimate demonstration arena since is about the capabilities of the cook determining the degree of fresh ingredients to be used, the creativity to substitute some ingredients for others, and the recipe innovation to introduce new foods to the kids besides the daily management of the kitchen resources. Research proofs that the degree of processed foods procured can be directly related to the level of competencies of the catering staff, since cooking with processed products largely consists of unpacking ready prepared foodstuffs, "anyone can do it", so the staff does not need to have a cook's education and experience whatsoever (Post, 2011). The implications of the oxymoronic concept that represents then organic processed products have to be evaluated.

The already decided menu also guides the decision in the sense that the foods needed to cook the pertinent dishes chosen in advance are the ones to be purchased. However, availability and delivery times play here an interesting role, since organic suppliers usually require clients to place the orders in advance so to deliver within specific timeframes. This means that the cook has to count also with good organization skills in order to be able to plan in advance the logistics involve on buying organics. Once again, Leith's statement (2007) regarding the narrow current vision of the school cook only being a cook proofs to be true. Flexibility and adaptation to change, in case of finding a good

deal on an organic product for instance, was recognized as key elements for coping with this challenge.

Savvy cooks additionally rely on their past experiences regarding suppliers and product quality. So decisions are also steered by this previous knowledge. John Thøgersen (2006) found on his study on consumer decision-making with regard to organic food products that basic values and past experience are main reasons explaining behavioral variances. Cooks recognized that the important thing is to know which products to buy, and which to avoid, in terms of quality for instance.

The addition of the abilities of caterers, namely being actually able to cook, knowledge regarding the best options to buy and organization and managerial skills, proves that the economic factors associated with purchasing organic are not counter-argument. Something that also is important to note is that the public kitchens with communal purchasing power can help to increase the diversity of organic products in the trade due to the amounts of goods these institutions buy (Bruske, 2011).

Concomitantly, the study by Thøgersen show that the intention to buy organic depends as well on external factors as defined by perceived social norms determined by their acquaintances influence. In this sense, preschool caterers in Malmö find external pressures coming from both the preschool staff and the kids.

The preschool cooks feel pressured by the opinions of their coworkers on their job. They want their food to be perceived as good and tasty, not low quality and cheap; so this plays an extra factor when deciding the grocery supply. This concern of their personal performance as noticed by others pushes the cooks to strive for a broader concept of value when purchasing foods. Researches on the perceptions of institutional meals suggest that these kinds of examples are the ones that should be stressed on the media, rather than the negative sensationalist press commonly related instead, in order to shift the negative image adherent to school meals and to help break the vicious cycle generated from this negative perception (Cardello, et al. 1996).

Related to this point, but more on the regulations aspect, is the fact that the teachers are supposed to share the meals with the kids as part of their responsibilities. However, cooks say that teachers are not comprised on the budget, plus NFA guidelines state that, due to reasons such as protecting kids from allergens and additives, teachers are not allowed to bring their food to the dinning halls along with the kids. The final result is that the cooks have to consider extra portions for the teachers, which in is seen as an inconsistency of the system. If this is indeed a loophole of the regulations it has to be addressed, if not, it has to be informed since it is still creating distress at the time of making decisions. Especially because it is believed by the cooks that the preschool teachers have a lot of power to uncap the potentialities of their job: they are the ones that have to share the meals and educate the children on concepts related to sustainable food. The pedagogic meal definitely is the culminating moment where the multiplied efforts of public servers at different levels find its *raison d'être*. Cooks acknowledge the impact of the teachers on kids, they say that is important for the children to have an adult figure eating the foods and serving as example, which takes us back to the concern they have regarding the opinions of the teachers on their cooking skills.

When it comes to the kids' perceptions, cooks show a more confident response in general, believing that children do like their dishes and quoting the positive comments they have received from them, it's the critical opinion of adults the one that worries them the most. However, it was similarly stated the need to consider the taste of the kids when designing the menu and buying the ingredients. Cooks complain about the foods that kids are being nourished with at their homes, and believe that is this deviation from healthy products the ones that later on represent an obstacle for making the kids eat nutritiously. Previous studies regarding the perceptions of the Swedish on the free meals program backup this belief, Persson (2012) implies that the public institutions carry a heavier responsibility for ensuring healthy diets in children as compared to what is expected from the parents. Furthermore, the school is seen as an institution that should take over some of the responsibilities of the family and carry out social and health-related political activities (Gullberg, 2006; Haastrup, 2003); a responsibility that usually falls on the cook's shoulders and that can explain why cooks considered health issues heavier when making procurement decisions.

Additional specific circumstances subjected to the context such as having kids with certain allergies, a majority of children with specific food requirements due to cultural or religious backgrounds, the amount of people the cooks are preparing food for are as well influencing the decisions. However, the cooks, the preschool heads, the environment coordinators, all agree that it is about the inner values and personal interests of the involved parties the ones determining the final decision and that will determine the motivations to overcome the difficulties or not. Overall, individual attitudes towards buying organic food are found to be primarily based on beliefs about benefits, in the case of Malmö preschool cooks, these concern specially those regarding health characteristics, highlighting the importance of purchasing organics when it comes to fruits and vegetables that kids eat with the skin due to the 'cleaner, chemical-free' production process associated with organics. Beliefs about costs seem to be less important when pondering children's health concerns, yet rampant. Concomitantly, social reasons translated as external influences from the opinions and perceptions of coworkers seem to be as important as personal motives for decisions about buying organic foods. A general improvement on the appreciation and value of the role that food plays in our lives would signify an increased demand on organic products and will similarly pressure the governments to provide larger budgets for this enterprise in public institutions, raising altogether the status of the preschool caterers.

#### *Implement the decision*

Implementing the decision deals more with practical aspects of the procurement activity. Routines play here as well an interesting determinant, since it is hard for people to change, to start taking risks and to get out of the comfort zone endeavor that have to be taken when bridging the current situation in order to reach a desired outcome.

In this case, preschool caterers face some barriers regarding the available resources to carry out the purchasing procedure. Since it has to be done through a software, Raindance, the need of a computer is imminent so one of the constraints at this stage was the possibility to have access to this tool for a certain amount of time. Some had a personal computer for their own use, and some others had to share this resource with

other preschool staff. This is important since it was appreciated that the procurement activity per-se was done randomly, depending on the free moments of the cooks, so in the case of sharing the computers, adequate coordination should be another constraint to be considered. Time available to carry out the activity defines as well what is going to be purchased and what is not. Under pressure, people behave on different ways than expected.

A complain the cooks show was the fact that there should be a double check of the procurement since Raindance will not automatically show if the products are in stock, so the cooks can enter an order and believe that the request is placed; however, there is an extra step consisting on a confirmation email where the detailed information of the available products is disclosed and that has to be checked before assuming the reception of the goods. This was a bothering factor that was believed by the cooks could be relieved by improving the visibility system of the software. Moreover, regarding the presentation of the products, they also mentioned discrepancies and confusing situations that led to the reception of half opened boxes or loosen pieces.

Here as well fits the situation before mentioned regarding the alternative method to purchase certain products such as organic chicken, due to the uncertainty that it might cause on the cooks. Besides this, the implementation of the decision does not require the authorization or supervision of any other actor, so in a certain way, is more about the available physical place and resources an the amount of free time the cook can devote to this task the major influencers of this step.

#### *Control and feedback*

The final step of the decision-making process involves a follow-up practice that should help on the continuous improvement of the sustainable procurement process. In general, hurdles at this level are related to information and awareness of the available means to carry on this key activity, leadership to promote the effective application of the measurements and the inertia that might oppose the changes needed and hopefully communicated through feedback.

This stage was evaluated both at the internal level and also at the inter-department level. In the first sense, it was enquired whether or not the caterer had identified its own process in addition to have internal targets established by his/her manager. This was never the case. The practices of the caterers instead were very autonomous and they only acknowledge to have received the instruction of buying organic either by their managers or directly through municipality announcements, but not specific amount was settled. Documentation of their activities was only in the form of the weekly plan of the menus and lists with the contact information of the suppliers. Routines and activities were not documented. The interactions with their managers were not necessarily frequent neither concerning these issues, although support from them was perceived as a positive influence facilitating pursuing of the policy goal of purchasing organic, since the preschool heads have the authority to align the personnel in order to work towards a common objective. According to theory, the influence of organizational incentives and pressures for sustainable procurement depends largely on the internal culture, including whether processes and structures encourage SP or not, and the degree to which upper management is supportive of sustainability and/or of change in general (O'Brien, 1999;

Gonzalez-Padron et al., 2008). The absence of support from authorities translates in managerial and structural barriers impacting organizational incentives/pressures overall (Bansal and Roth, 2000), therefore potentially hindering the implementation intentions of practitioners. Nevertheless, there were still cases when even without explicit support from the upper authority the cook strived in achieving the goals, indicating that personal commitment and interest, found in the right conditions, might as well play a more significant role.

On feedback from other authorities, the situation was similar; the caterers feel they are not receiving comments about the work they are doing. Even when it has been recognized that the municipality has played a key role, especially on negotiating the availability of products and good prices for the public kitchens, the only occasion the cooks hear about them is when they surpass the budget. However, it is argued that nothing happens when the opposite:

*“Nobody comes in at the end of the year and tells you if you have saved. A quote from one cook summarizing: “I get very little feedback; you get feedback if you are way over budget, then you receive a phone call. Being good and managing your task is something I do for myself”*

It was made clear that a control procedure was conditioned to the personal interests and motivations of the caterers. These individualities are widely abundant, even for teams working in the same kitchen the level of interest and commitment on the organic matter differs. The catering personnel are well aware of the existence of these discrepancies in the whole city. It is acknowledged that there are a great variety of personalities in the municipality’s catering sector, from deeply committed to intensely bored people, resulting on dissimilar standards even for very basic matters. Through interaction allowed during events organized by the municipality they could realize that different rules regarding what it is allowed and what not predominate; while there is a desire of bringing common base in order to make everybody understand how things work on the same manner. This agreement could facilitate the implementation of control procedures on the municipality as well, simplifying the establishment of the most appropriate and effective monitoring mechanism that can be quite challenging in a scenario of a lot of variability that makes hard to know exactly which aspects to focus on. Moreover, the designation of a catering head, which has been a persistent request of the sector according to the interviews comebacks, has the potential to increase the interest on the subject, lifting the catering status altogether and facilitating the goal alignment in order to make the sector work jointly to reach it. This directing entity might possibly play a stronger role to coordinate and assess regularly the status of the whole municipality.

The networking aspect as a control and feedback tool was approach to the cooks, and a desire to maintain contact and share experiences as a good way to learn from others mistakes or successes, so as to homogenize in a certain way the practices and knowledge among the districts was identified. Additionally, an adequate information system could improve the informal information exchange within the group of caterers as well as between them and other actors like the environmental department, providing the desired common knowledge base. Best practice can be shared on a better way if networks of people working on the subject of organic food come together.

Despite the situation of not receiving automatic feedback, it was understood that communicating with the involved participants of the policy implementation was not a difficult task. For obtaining the budget available, incidentally considered by the cooks interviewed as a basic number to be in control of your own performance and which they wish would be communicated on a regular yearly basis, if it was the ambition of the cook to know the allocated budget for instance, it was possible to reach a person only a phone-call away. The same goes for complaints or suggestions, the flat organization allows for the people to participate actively, so this was well perceived by the cooks.

Some feedback could be as well linked on a certain way to the initial efforts of the external influencers on the policy implementation, since they imply the cycling of the information and the evaluation of the results obtained in-between. The environmental department, consider in the words of a cook as an *Ambassador for food* connecting people within preschools, altogether while raising this specific question on society, does its part through a ceremony recognizing the results of the preschools showing the most outstanding levels of organic products purchased, so as those that have rocketed during the year analyzed. Neighborhoods that are at the top when it comes to ethically certified purchased are as well recognized on a public ceremony. This event serves as well as an opportunity for the catering personnel to meet, interact and network, and it is highly appreciated by them, it was here when they started recognizing the importance of interacting with one another. On a certain way the event encourages the catering personnel since it is a direct response to the efforts they put on their jobs, a proof that there is appreciation for what they are doing. This can be identified as a reward system, which literature has identified as a good way to stimulate commitment, hence modifying behavior (Günther & Scheibe, 2006). However, a good monitoring system should also have in place consequences in cases of not observing the guidelines, and in Malmö there has been identify a lack of sanctions. There are simply no feedback mechanisms ensuring a higher level of commitment to decisions and policies, or at least, there were not identified by the catering personnel. As many other aspects presented here, this has been recognized as a cultural aspect limiting the improvement of results on a certain level. Similarly, there was also a comment on the opposite spectrum of a cook stating:

*“In Sweden, no one’s supposed to be that much better than everyone else”*

This cultural aspect of the Swedish society hinders the potential of motivating through incentives and sanctions; especially when this results on stagnation of outcomes that was the case identified on a preschool, the cook stated that, despite having good skills, knowledge and being savvy regarding groceries tricks and purchasing mechanisms, the preschool’s performance was quite satisfactory and there was no extra efforts or intentions whatsoever from the catering team to increase the numbers.

A supplementary tool that was quite emphasized in the interviews, due to its perceived potential to make a difference, was the implementation and stricter regulation of the ‘pedagogic meal’ as a means to indeed achieve the sustainability aims of the goal. The cooks responses recognize the impacts of the opinions of the teachers on the kids, and even when it was declared that it was praxis on the preschools visited (at least it was indeed true that the teachers were there while the kids were having the meals), it was considered that a closer observance of this initiative should be carried out. Likewise, there is yet room for the kids to participate in more cooking related activities. A preschool head

talked about the raising permissions of authority guidelines with respect to kids doing cooking related activities under the right supervision, which apparently before were discouraged.

Finally, as an overarching control and feedback method, the enactment of the policy and the follow-up activities in general are well appreciated by the different structures participating on the implementation. It is acknowledged that the recognition of the catering work has improved ever since. The goal that this initiative pursues, has given the caterers something to work towards for together with a fiercer perception of their jobs. In addition it is highlighting the attention on the public meals program while making a clear statement concerning a care for the food the kids are being nourished with. Left aside the health and environmental implications resulting from this, the truly significant matter for the caterers is the way this policy has lifted the un-glamorous status of their jobs; which was perceived to be by the cooks as the most yielding control and feedback mechanism.



# Conclusions

## The role of food on a sustainable society

The current generation is being presented with enormous challenges for the years to come; from an increasing population that has decided to pursue live on the cities, to the paradoxical predicaments of half of the world starving while the other half is dealing with the consequences of an unhealthy diet. Facing their inherent commitment to citizen's wellbeing, governments from all over the world have acknowledged this situation and through global and local associations equally struggle to find suitable alternatives to curb the contemporary negligent use of existing resources. Henceforward, and as a modest way to strive for accountability, it was the main objective of this study to gain knowledge on the topic of sustainable urban food provision, recognizing the omnipresent characteristics of food in the development of every society both as a collective system so as at the individual level.

As it was identified, food indeed is in itself a powerful tool persistently involved on the core intrinsic concepts of sustainable development. From its production throughout the way societies deal with waste, food represents an interesting and much needed opportunity to analyze and reevaluate the way we currently behave. And precisely as a result to this examination, public procurement has been uncovered as a key holder of potential changes and a driving force of the production and consumption habits of any given community. If we couple then the abilities of public servers and apply them on the fertile arena of preschools via the meals program, the promise turns out to be more than appealing. It is not just about shaping the market favoring organic producers and readjusting the prices as a result of the increased demand; if these efforts are applied together with a strategy to educate the youth so to raise their awareness and instill a mentality of sustainability through food, the cycle will be closed from both ends of supply and demand resulting on an automated engine working by itself throughout time.

Malmö has succeeded already on the sense of conceding food its deserved high status. The interest of the municipality for sustainable development ultimately found its place on the core of the welfare system and through alternatives such as organic products, vegetarian diets and reduction of meat consumption intends to re-educate the taste of its dwellers, instilling a comprehensive way of thinking regarding food choices on its future consumers. But in order to achieve this, herculean initiatives related to the provision of adequate products, communication strategies and follow-up measurements, led altogether by a supportive authority have to find embracement by the persons in charge of bringing food to the children. This of course is a task easier said than done, but precisely for this reason it is important to understand the prevailing routines to which

preschool caterers are attached to, so to identify potential obstacles to the implementation of this basic endeavors in the hope of relieving them thus unleashing the potential of sustainable procurement.

The role of the caterer then is analyzed and their insights evaluated and compared in order to use the findings to answer in some extent the research questions stated at the beginning of this thesis. In addition to the caterer's perspectives, external participants influencing their performance as regard the policy were as well enquired. In the journey to solve these questions, however, a complex structure full of interweaved reasons was revealed, and the outcomes are presented here as a general way of concluding this research.

## *A shared* willingness of going on a certain direction

As a starting point, some questions were raised resulting from an initial basic exploration of the subject; they were designed towards understanding the faltering conditions of the adoption of sustainable procurement practices. These queries provided an early framework in order to go deeper, and as was declared before, a complex system disentangled as both the literature and empirical findings accumulated. It's important to highlight that even when the empirical findings have confirmed the majority of drivers and barriers for sustainable public procurement accounted for in the literature, there is always the influence of the contextual factor setting specific characteristics of each scenario; these peculiarities are the contribution of this research on the subject.

So, in response to

*'What are the factors defining the ultimate purchasing decision of public food procurers as regards whether or not buying sustainably sound (organic) foodstuffs?'*

it can be concluded the following:

**Personal motivation** of the individual in charge of procurement is the main determinant. Straightforwardly, implementing sustainability requires the adoption of change; unfortunately, it has been recognized that overcoming change resistance is the crux of the implementation problem. For this reason, identifying the core motivational factors of the subject doing the implementation practices is transcendent, because these motivations are the ones driving behavior toward the correct goal. Pinpointing successfully the key factors promises to unleash a working self-improving engine. With this in mind, goal redesign of the preschool catering sector can be motivated by the next findings:

- A dominant concern of the **health implications** related to the food provided to the kids. Even when showing some disbelief and uncertainty about the true impacts of organics, health associations were a strong driver of procurement. Taste and quality were not differentiators, neither environmental worries represented by the reduction of meat products, which was instead considered as a tool for balancing the budget rather than as an ecological decision. Thereafter, stressing health benefits, directing

the aim towards protecting and improving children's wellbeing during information campaigns can shift altogether procurement practices more effectively.

- Social pressures in the form of **opinions from co-workers**. The caterers' worries regarding the evaluation of their jobs quality from other adult figures constituted a determinant of the effort invested on their tasks. By all means it cannot be ignored that this has to do equally with the caterers inherent personality and individual ambitions; nevertheless it was noticed that the recognition of their job, both from teachers and the preschool head, was a trigger of overall improvement. Likewise, the fear of bad critics was an interesting player. This implies that any efforts invested on the attainment of the goal, in the form of courses for instance, can be exponentially multiplied if the teachers are involved as well, and are informed about the importance of their positive feedback.
- The **recognition** of their jobs by the society. The growing acknowledgment of the importance of their role has been a strong motivator for the catering sector to shift from regular options to organic foods. Perceived increased attention to their jobs stimulates the caterer's will at the time of providing an objective to work towards to. Moreover, since it was identified that the observance of the policy responds better to personal rather than environmental reasons, a deeper emphasis on the direct impacts of using organic foods on their individual self can bring multiplied dividends. A good example of this is the identified concept of homemade meals. As home-cooked food symbolizes love and care, and implies the use of natural ingredients (Lupton, 1996), organics can play a role here only if the appropriate associations are made straightforwardly to the caterers. Becoming aware of the impact that this entails on the appreciation of their work rather than focusing on the environmental aspect, could be a key approach in order to make catering staff more involved on the implementation of the policy, since it will be perceived as an express enhancer of the appreciation of their job, which will benefit their self-confidence through higher status and recognition.

The extra **price hurdle** associated with purchasing organic produce has to be **discredited**. The positive individual attitudes towards buying organic foods, on a public institution context, can be overran by the austere environment distinctive of these kinds of institutions. This is why it is important to fight this preconceived notion from the caterers reasoning. Three alternatives to do so are presented:

- Publicize **successful cases**. Even when the premium associated with organic products is the reason obstructing procurement most frequently cited by participants, the evaluation of the scenarios and the fact that in reality there are cases where the institutions are achieving large amounts of organic products while staying within the budget limits disqualifies this belief of organic products as being more expensive, hence unattainable. However, without awareness, nothing much can be expected.
- Knowing the **budget**. As a way to provide chefs with a sense of self-control on their activities, the notification of the budgets has to better be made on a yearly basis. It only makes sense to allow for a person to be aware of the resources at his/her disposal if they are expected to make them yield at the largest extent possible. Moreover, this

will bridge the over precautions of a more constraint belief of their accounts that results on dismissing organics from the very beginning altogether.

- Recognition of **professional skills** on the caterers. The cooking knowledge, either professional or through past experience on the field, kitchen management proficiencies and savvy profile of the caterer seemed to define much of the procurement decisions they make. Once again, injecting professional experience on the public kitchens seems to be a key trigger of overall improvement in the sector.

Upper **management's**, named the preschool head, support and attitudes towards organic **are enablers**; yet not determinants. If the chef is well motivated enough, the influence of the head teacher, positive, negative or passive, seems to play a diminished role on the procurement decisions. This doesn't mean that the preschool head has a null role on the implementation success; nevertheless, the perception of some external influencers that the true potential lays on the preschool heads has to be clarified and expanded. Certainly the preschool head could facilitate a lot the tasks of the caterer by:

- **Aligning** the institution staff, interceding to improve the cook's working conditions concerning help or resources such as equipment or the facilities per se, and
- Implementing an **internal control and feedback** mechanism. Chef's motivation can be driven by incentives and sanctions altogether and the authority figure of the boss can use this opportunity to motivate and encourage adequately catering personnel.

**Lack of representation** from an appointed leader. More than a current defining factor of the procurement decisions, this is rather seen as an opportunity to further boost the aforementioned strategies. Thus, selecting a head of the sector can allow for certain alternatives identified during the research to be put in practice comprehensively:

- The creation of a **network**. The need for efficient platforms and methodologies that stimulate learning processes in the public catering realm is imperative, since currently there is a wide variety of actors searching and advocating for cooperation between participants and sharing knowledge. Concomitantly, open discussion increases awareness shedding light on crucial matters and accelerating the implementation of strategies to overcome hurdles.
  1. **Improved communication** mechanisms. The necessity of a framework for municipal cooperation in order to complete communication efforts successfully is imperative. The lack of consensus observed currently raises awareness of the need of better communication strategies, which can find in a network an adequate diffusion channel.
  2. **Common base**. As it was made clear, a prevailing uncertainty about the implications of organic products, in addition to an environment characterized by a lack of alignment and the presence of a myriad of spoken and unspoken rules demands the attention of participants in order to homogenize knowledge so to facilitate agreements. The importance of common base relies on the premise that different perspectives change how sustainability information is perceived, creating a fragmented communication system where information is interpreted and reinterpreted between different policy implementation participants, obstructing altogether the efforts of working harmonically towards a shared aim.

3. **Best practice** share. Last but definitely not least, best practice dissemination is highlighted. In order to make this the norm rather the exception, the public sector can take advantage of a network as a creative and more effective diffusion mechanism. Morgan and Sonnino (2006) succeed on the depiction of the relevance of best practice stressing that the key point to note about social learning is that the most effective diffusion mechanism appears to be horizontal peer-to-peer learning, rather than vertical command-and-control systems.

These findings responded from different angles the initial research queries. Over the construction of the findings the influence of the staff status as a motivator of change was unquestionable. The assumptions related to the influence of the chef experience, previous training acquired and working conditions such as kitchen facilities on the willingness to buy organic, were dwarfed by the realization that it is instead the stimulation of the correct personal motivators the key holder of change. Even when the aforementioned conditions can make a difference, those are not the aspects that deserve the time and efforts if resilient behavioral change is chased. Knowing the budget did make a difference as a self-control tool, while it was perceived that the current availability of organic products is sufficient and doesn't represent a further complication; perhaps is more about the easy visualization of the current products the factor that represents a burden. Finally, the implementation of an internal control system with follow-up mechanisms envisioning incentives and targets speaks about the commitment and recognition of a target to chase, while giving purpose to the tasks of the caterers.

Finally, even when it seems unlikely that a universally valid strategy for overcoming the identified hurdles can be developed, individual strategies can be designed as long as the proper information is made available and motivation is stirred adequately. One way of doing so is having striving institutions explaining their strategies to overcome their burdens, as a way of helping or just as inspiration for others.

## *Opportunities* in Malmö's preschools sector

It is argued that in order for sustainability policies to be transferred into action, normative elements such as knowledge and systemic conditions are necessary. Fortunately for Malmö, the sustainability arena has some years of previous background: being an urban planner himself, Malmö city mayor Ilmar Reepalu's first priority when overtaking the position was to transform Malmö into the most environmentally friendly city in Sweden (Lin, 2012). This underlying political commitment means that any emerging initiative in the city represents more a continuation rather than a departing effort that can already find backup structures to build upon. Concerning public procurement, the city has several political guidelines indicating that low environmental impact and socially responsible products should be the first choice.

In addition to this overarching municipal support, a national vision of increasing recognition to the food sector of Sweden is subsequently multiplying the attention over the topic of school meals. Indeed, the Swedish government has included public feeding programs such as school lunch as part of an initiative called "Culinary Nation,"

conceived by the government's rural affairs minister, Eskil Erlandsson, as a way of boosting growth on the rural sector. One of the aims of the program consists on highlighting the importance on the quality and the joy factor of the food served to kids. As mentioned before, every single action attempting to lift the status of the catering sector in society has an enormous effect on the personnel self-appreciation, which is thereafter reflected on the results of the policy. The situation of Malmö is then benefited from initiatives such as the aforementioned. On parallel, parents concerns have shaken as well cooks willingness, resulting on the creation of, albeit unofficial, still effective networks on social media that are snowballing on a series of strategies approaching the school food subject. This burgeoning awareness and interest seems to go hand in hand unraveling on a non-stop development, connecting families with school cooks, chefs with chefs, and increasing momentum for better school meals across the municipality.

Cultural aspects of Malmö, inherent to the Swedish culture are as well perceived as social's strengths. The commitment to the environment protection is regarded almost as a born-acquired characteristic of the Swedish, and certainly serves as a solid foundation for instilling sustainable consumptions and production habits. Adding up, embedded values of universalism<sup>16</sup> that can be identified in the Swedish culture, have been related with more positive attitudes towards organic food (Dreezens, 2005), so the national ideology itself has been shaped beforehand striving for this goal. Moreover, the prevailing corporate behavior of close observance and adherence to rules and guidelines together with a flat organizational scheme that allows for reduced bureaucracy and facilitates the direct interaction between public servers indisputably eases the implementation process up to a certain degree.

The pedagogic meal as an opportunity to shape young minds with a sustainable will, inculcating an interest in food from an early age, constitutes the answer for a sustainable future. For this reason, the educational power of this occasion has to be acknowledged when disregarded, otherwise reinforced and address on a full scale. Hand in hand goes the involvement and needed cooperation of teachers with the caterer's job; a conjoint participation in the food education of children is regarded as the most rewarding scenario.

Finally, the mere fact that the phenomenon under research constitutes an emerging transformation of an existing regime of practices, an ongoing and dynamic policy intervention, represents an opportunity per-se. The decisive global reorganization about to happen at the municipal level has already succeeded in recognizing the relevance of food in public institutions assigning an entity for the supervision of such related activities. This has the potential of shuddering even more the microcosms of preschools, and in order to do so with a deeper understanding of the current situation, this descriptive examination can be useful as a starting point for further research regarding the implications of the implementation of the new Department for Physical Environment. The findings presented here could be studied with the purpose of determining effective further strategies in order to achieve sustainable awareness and increased commitment of the preschool catering sector at least.

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<sup>16</sup> Schwartz (1994) defines Universalism as 'understanding, appreciation, tolerance, and protection for the welfare of all people and for nature'.

Besides, the evaluation of the actual carbon reduction resulting from the change in procurement practices is definitely worth exploring as a tangible result that can steer further motivation. Additional further research regarding the social implications of sustainability on the procurement practices of caterers can be an interesting completing dimension of the process, since this subject was barely approached and still constitutes a TBL sustainability component.



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