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Constraints to local catering supply and solutions to overcome these difficulties, an example from a rural territory



Abstract

Relating to the current changes towards sustainability in our global food system, many projects of local and/or organic catering supply emerged and are implemented all around Europe. Besides this rising development, these projects are not easy to implement and these initiatives often have to face obstacles. The aim of this study was to identify the constraints of local school catering supply observed in rural territories and investigate if it is easier to implement these types of projects in rural areas rather than urban ones. In a second phase, this document presents success factors and actions-levers to overcome these difficulties. The survey was located in the Pavs du Bocage in Normandy (France); we interviewed 30 caterers and 27 producers and processors. We found that many constraints are based on economical and logistical issues (canteens budget, deliveries, etc.) but there is also a great influence of human based challenges in regards to knowledge, change of habits, etc. Finally, rural territories share most of the constraints of urban areas; and in spite of a higher geographical proximity between producers and caterers, the gap between these two "worlds" is as present as in urban areas. Nonetheless, there are many solutions to overcome these difficulties. These actions and success factors relate to various aspects: cooking practices, education, stakeholder roles, etc. but most of them are based on people involvement, people learning, etc. Consequently, successful local catering supply is mainly based on stakeholders' willingness and motivation to implement the project.

Key words: rural territory, local supply, school catering, multi-stakeholders process

Résumé

Face aux évolutions de notre système alimentaire actuel vers des modes de production et de consommation plus durables, de nombreux projets d'approvisionnement local de la restauration collective voient le jour à travers l'Europe. Malgré leur développement croissant, ces projets ne sont pas toujours simples à mettre en œuvre et doivent souvent faire face à de multiples contraintes. L'objectif de cette étude était d'identifier les freins à l'approvisionnement local de la restauration collective en milieu rural mais aussi de déterminer s'il était plus simple de mettre en place ce type de projet en milieu rural qu'en milieu urbain ou péri-urbain. De plus, ce document présente différents facteurs de succès et leviers d'action pour surmonter ces difficultés. Cette étude a été réalisée dans le Pays du Bocage (Orne, Basse-Normandie) ; nous avons rencontré 30 cuisiniers et 27 producteurs et artisans. L'étude a montré que de nombreuses contraintes sont d'ordre économique et logistique (budget des cantines, livraisons, etc.) ; cependant l'humain joue un aussi un rôle important au travers des freins concernant l'expérience, le changement d'habitudes, etc. En définitive, les territoires ruraux partagent la plupart des freins rencontrés en milieu urbain. En dépit d'une plus grande proximité géographique entre producteurs et cuisiniers en milieu rural, la fracture qui existe entre ces deux secteurs est aussi présente qu'en territoire urbain. Néanmoins, de multiples solutions peuvent être mise en place pour surmonter ces obstacles. Ces actions et facteurs de succès concernent différentes choses : pratiques culinaires, éducation, rôle des acteurs, etc. En bref, la plupart de ces solutions sont basées sur l'humain (participation, apprentissage, etc.). Par conséquent, une mise en œuvre réussie de l'approvisionnement local de la restauration collective repose sur la volonté et la motivation des acteurs à s'impliquer dans le projet.

Mot clés : territoires ruraux, approvisionnement local, restauration collective scolaire, démarche multi-acteurs

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List of abbreviations and acronyms

PDO	Protected Designation of Origin
PGI	Protected Geographical Indication
GEMRCN	Groupe d'Étude des Marchés de Restauration Collective et Nutrition (study group
	of catering markets and nutrition)
CSA	Community Supported Agriculture
SFSC	Short Food Supply Chain
GIP	Groupement d'Intérêt Public (French legal status, public interest grouping)
VAT	Value Added Tax

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1. Introduction

1.1. Changing towards sustainable food systems

More and more people become aware of the necessity to change our current food system, consumption habits and farming practices. This trend of change started a long time ago but since a decade it is growing up and more and more people are involved. The causes of this movement are numerous and related to various aspects: environmental degradation, sanitary crisis, health issues, lack of transparency in our current industrialised food system, etc. (Merle et al., 2011; Nel Wognum et al., 2011). Citizens and researchers develop alternatives to create sustainable food systems that suit to their specific environment (climatic conditions, rural/urban areas, cultural heritage, etc.). This challenge for sustainability is a global issue targeting the whole food system: the production system (farming practices) as well as the distribution and consumption systems (Kloppenburg et al., 1996; Gliessman, 2007; Wezel et al., 2009). Therefore, there are many ways to approach this global issue and we will focus on the distribution and consumption aspects.

1.2. Short food supply chain and local food systems

Depending on the definitions, Short Food Supply Chain (SFSC) does not always take into account the local aspect of the food distribution (Ministère de l'Agriculture, 2009; Aubry and Kebir, 2013). To be "complete" SFSC and local food system should encompass two dimensions: organised proximity and geographic proximity. Organized proximity refers to the closeness relationship between the producer and the consumer and can be addressed by the number of intermediaries or even their absence, whereas geographic proximity relates to the spatial distance between the producer and the consumer and can be measured in terms of kilometres, time or administrative boundaries (Praly et al., 2009; Schönhart et al., 2009; Aubry and Kebir, 2013). No matter the definitions taken, SFSC are developed as an alternative to large-scale distribution systems with the objective to recreate the link between producers and consumers, and to increase the value of farmers' work (Merle et al., 2009).

All these types of SFSC respond to the same issues: develop local economy, improve environmental conditions, develop healthier diets, strengthen social networks, assert territorial identity, etc. (Morgan and Morley, 2002; Renting et al., 2003; Herault-Fournier, 2010). Although some authors defend SFSC and present all their advantages, others strongly argue against what they call the "local trap" (Born and Purcell, 2006). Among the criticisms of SFSC we can mention: "local" is a socially constructed concept, lower energy consumption is debated since

transportation and logistics are often less efficient than in mainstream food systems, difficulty to measure social benefits, food quality and production methods are not always better, etc. (Hinrichs, 2003; Schönhart et al., 2009; Aubry and Kebir, 2013).

Despite these criticisms, on the whole, SFSC gain momentum as the multiple forms through which they develop show. The different SFSC that can be encountered are: community supported agriculture (CSA), box schemes, collective point of sale, local catering supply, online selling, farmer's markets, on-farm selling, etc. (Aubry and Kebir, 2013; Herault-Fournier, 2010; Kloppenburg et al., 1996; Langhade, 2010).

1.3. Meals' quality improvement in catering in Europe

Many initiatives have been developed to improve meals' quality especially in public institutions (schools and hospitals). The concrete implementation of these projects is often linked to local and/or organic food procurement. In this regard, Italy was one of the pioneers with the implementation of organic school meal schemes since the 1990's; in 2003, 63% of the schools were using organic products (at least for some ingredients). In Denmark, about 50% of the municipalities and 30% of the institutions are involved in organic procurement (the percentage of organic food varies depending on the establishment) (Morgan and Sonnino, 2007). In addition to these two examples many similar initiatives have been implemented all-over Europe (Sweden, Finland, France, etc.) (Morgan and Morley, 2002).

Local authorities often lead these changes in food procurement. To enforce the effects of these changes, a lot of them are embedded in a more global strategy related to: nutrition and healthy eating, sustainability education, local economy development or rural vitality and employment (Kakriainen, 2005; Mikkelsen et al., 2005; Risku-Norja and Mikkola, 2010; Antheaume and Schieb-Bienfait, 2012).

1.4. Catering management and local procurement

There are many different types of catering: schools, hospitals, retirement homes, companies' canteens, central kitchens, jails, militaries, etc. The management of these establishments can be private or public; if public, it can be governed at municipality, district or state levels. The kitchen management can be operated directly by the body in charge of the establishment (direct management) or delegated and granted to a private company that organises all the menus, the procurement etc. (granted management). Obviously, the size of these establishments and the number of meals to prepare every day vary greatly among the different catering types (Beraud-Sudreau, 2010a). For all their procurement, including food, public establishments have to follow the European public procurement regulations and conduct calls for tender when the purchases are

above a certain threshold (Morgan and Sonnino, 2007). In these calls for tender it is forbidden to mention the term "local", considered as a distortion of competition rules. Even though the term "local" is banned, it is possible to refer to environmental sustainability or organic agriculture, to ask for fresh and seasonal products, etc. Moreover, criteria like organoleptic qualities of the products or reactivity of the supplier can be used to evaluate the candidates. Therefore, albeit calls for tender do not favour local supply, there are many ways to organise local supply through these procurement regulations (Bottois et al., 2010; Le Velly and Bréchet, 2011)

Regardless the procurement procedure (public or private establishment), improving meal quality and operating a shift in procurement sources necessitate many changes in terms of organisation, logistics, budget, decision making, etc. and thus require the involvement of many actors. A lot of stakeholders are concerned by these changes: kitchen managers, caterers, local authorities, guests, producers, etc. (Spigarolo et al., 2010). One of the first challenges in local catering supply is for producers and caterers to work together. There are from two different "worlds" which do not know each other, do not know the constraints of each others job, etc. Even if both can be interested in these types of initiatives, both are in "a waiting position": caterers are waiting for a structured and dynamic offer from the local producers and producers are waiting for a real demand from the canteens with important volumes in the long run (Le Velly and Bréchet, 2011; Antheaume and Schieb-Bienfait, 2012).

Besides this gap between producers and caterers, there are features and obstacles on each side that constrain the implementation of local catering supply. On the producers side, there is a lack of offer structuring (low product diversity, small volumes, weak logistics organisation, etc.) and farmers that sell their products through SFSC are not always interested in catering which they consider as an uncertain market as well as less remunerative than direct sale to the consumers (Antheaume and Schieb-Bienfait, 2012). On the canteens side, the main constraints are budget and logistics. Other obstacles are: the lack of equipment and staff to prepare unprocessed food (due to the increase of the share of already prepared food during the past years), limited storage capacities, the habits of "multi-products" suppliers, the fear that guests will not appreciate new and different products, etc. Finally, it is a hard task to change caterers organisation and habits (Nölting, 2009; Ba et al., 2010). To solve part of these challenges (the gap between producers and caterers and the constraints of each environment) some projects of local catering supply have been developed through local suppliers and wholesalers. In these initiatives, suppliers and wholesalers have a key role to play in linking demand and offer. These actors have established their role because of their experience in offer structuring, logistics, invoicing, etc. (Ba et al., 2010; Le Velly et al., 2010).

1.5. Relevance of a case study in a rural area

In this paper, we will look into the factors constraining local catering supply (what are the elements limiting matching between local products offer and local demand?) and the solutions to overcome these challenges (what are the success factors and actions-levers to overcome the constraints of local catering supply?). The difficulties to implement local catering supply may be due to technical and logistical issues from both sides (producers and caterers) or to a lack of interest in this thematic from caterers and/or producers. The solutions to overcome these difficulties can be awareness and cooperation among the different actors or the creation of an intermediate link between producers and caterers like a virtual or physical platform for example.

Most of the studies concerning local catering supply have been conducted in urban areas or close to urban areas with the main objective to provide local food to the closest big city. Therefore, many of the studies are based at the municipality scale and are related to large establishments serving a high number of meals everyday. In this study, we will explore how to develop local catering supply in rural areas at a territorial scale and mainly for small establishments. Consequently, we can wonder if the issues related to catering and to producers are similar in rural and urban areas and if it is easier to implement local supply in rural territories. Obviously, there is a higher geographical and social proximity between caterers and producers in rural areas. Therefore, the gap between caterers and producers might be less important than in urban areas. We can assume that caterers know the producers better and the issues related to their activity in rural areas than in cities; however, the opposite (producers know caterers' issues better) might not be true. Even if catering and farming are still two different jobs, caterers could have more contacts with producers in their private life (family in farming, neighbours, farmers' market etc.). On the contrary, the small size of the establishment is an equivocal advantage since it can be a good option for small producers but for the bigger ones it is inconvenient to deliver little quantities in many places.

After the description of the method used in the study, I will present the results, this section will be divided in two: demand and supply. In each part I will firstly describe the characteristics and actual practices of each actor (demand: catering and supply: producers), and secondly the constraints of each actor to organise local catering supply. In the last section, the discussion, I will compare my results with results from other studies in France and Europe, then I will present some action-levers to overcome the constraints presented previously and finally I will contextualise local catering supply in a larger agroecological perspective.

2. Methodology

2.1. Framework of the study



Figure 1: The Orne district in France and the Pays du Bocage (source: http://www.luventicus.org/cartes/francedepartements/orne.html and http://www.ornetourisme.com/visites-villes-villages)

I have conducted my case study in France, more exactly in the "Pays du Bocage" which is the Northwest part of the Orne district, in Normandy (cf. Figure 1). I have worked within the *GIP ADECO Pays du Bocage*, an organisation for territorial development that deals with economy, public services, tourism, environment, etc. The *GIP ADECO Pays du Bocage* has a project to facilitate the implementation of local catering supply on the territory. My study was the first step of the project and aimed to better understand the canteens' organisation (material, human and financial means), to identify the willingness or not of the caterers to work with local products, etc. and to characterize the needs and the wishes of the products available locally, the distribution channels currently used, the willingness or not of the products to work with canteens, etc. and to determine which actions should be implemented to facilitate local catering supply. Thus, this study was clearly action oriented and practical in the perspective to concretely implement a project afterwards.

2.2. Characteristics of the studied area

In term of population, Orne is a rural district with 55% of the population living in rural areas (much higher than the French average of 27%) (DRAAF Orne, 2006). The Pays du Bocage groups 138 municipalities on a territory of 1720 km² (28% of the Orne's district area) and





Figure 2: Map of the principal production by municipality, in 2010 (source: from Agreste 2011)

Regarding agriculture, the Orne district counts about 5900 farms and the main productions are dairy cows and beef cows as well as horses and crops. There are very few fruit and vegetable producers (cf. Figure 2) (Agreste, 2011). In 2010, 3,6% of the farms were certified organic which is similar to the French average of 3,5% (Agreste, 2014, 2012a). Only 7% of the Orne's farms sell their products through SFSC, which is extremely low compared to the French average of 21% (Agreste 2012b 2012c). The Pays du Bocage territory counts 36% of the Orne's farms, breeding (dairy cows and mixed beef and dairy cows) (cf. Figure 2) (Agreste, 2014). Concerning organic agriculture in the Pays du Bocage, 3,7% of the farms are certified (similar to the district and national average) (Agreste, 2014). The cider and *poiré*¹ production is an important diversification activity especially in the South part of the area. The food processing industry is very dynamic in the Pays du Bocage and accounts for 66% of the

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¹ The *poiré* is a kind of cider made from pears.

Orne's employments in this sector. There are various types of products processed on the territory: dairy, poultry and beef meat, biscuit and chocolate (Agreste, 2014).

2.3. Description of the survey

2.3.1. The questionnaires

The survey was divided in two parts: the demand and the supply. The survey was based on two questionnaires (one for the caterers and one for the producers) containing mainly multiple-choice questions with an answer "other" where the interviewees could mention their own ideas (cf. Appendix I). The Orne district Chamber of Agricultural wrote the producers' questionnaire and I could just modify and add a few questions. The Agricultural Chamber coordinates the different initiatives for local catering supply in the district and centralises the results that is the reason why they wanted a harmonised questionnaire. In collaboration with my internship supervisor, I constructed the caterers' questionnaire from the outline given by the Agricultural Chamber of Orne.

All the questionnaire results were processed with the software SPHINX. With this software, it is possible to make graphs, to calculate correlations between variables and to express their significance.

2.3.2. The sample

On the catering side, we decided to work with nursery and primary schools (which are administrated by municipalities or associations) and retirement homes. We excluded high schools and colleges since they are managed respectively by the district and the region, therefore the initiative cannot be taken at the municipal or territorial level. We chose exclusively establishments which prepared meals on-site and with a direct management of the canteen (no granted management). We excluded granted managed canteens considering that they are less accessible and that we had little room to influence their practices. According to these criteria, 32 schools (managed either by the municipality or by an association of pupils' parents) and 11 retirement homes were selected.

On the producer side, we selected only the farmers who already have an activity of direct or local sale. We excluded the cider and *poiré* farmers considering that their products are not part of the staple ingredients used in canteens. We chose to focus on the following products: meat, dairy (cow and goat), poultry, eggs, vegetable, oil and flour. In addition, we added to our list of farmers some local "artisans" or small food processing industries offering products that are not available on farms. Finally, there were 42 producers fulfilling these criteria. All the producers

and processors selected are located in the Pays du Bocage except a few of them that are in the neighbouring district. The ones selected outside the Pays du Bocage are from the meat sector since there are few meat processors in our territory.

2.3.3. The interviews

All the survey have been done in "face-to-face" interviews; we went to meet each interviewee on his farm or in his kitchen. Among the 32-targeted school, we were able to meet 24 canteen's chefs (that is to say 75%) and among the 11 retirement homes, we met 6 canteen's chefs (55%) (cf. Appendix II.1). The caterers who refused to meet us were not interested in the initiative or did not have time to devote to the survey. For the producers, on the 42 targeted, 27 accepted to meet us (cf. Appendix II.2). The others were not interested in catering, as they thought that their products are too high quality and too high priced for canteens or having too small volumes to deliver catering, etc. On the 57 interviews conducted, I did 48 of them and my internship supervisor did 9.

2.3.4. Internship proceedings

Additionally to these interview and analysis phases, it was planned to initiate the implementation of the project and to confirm the main results of the study. The plan was to organise public meetings where we would invite caterers, canteens' managers, producers, municipality representatives, pupils' parents, etc. in order to present the results of the survey, propose actions and work with the stakeholders to find new ideas. The objectives of theses meetings were to confirm the willingness of the producers and cooks to work on local catering supply identified in the interviews, to raise awareness and to begin involving stakeholders in the project. Unfortunately, because of internal challenges in the organisation in which I have done my internship, I was not able to organise these meetings and only the survey phase was completed.

3. Results

3.1. The demand side: catering

3.1.1. Catering practices and organisation in rural areas

There are numerous discrepancies among the schools of the Pays du Bocage in terms of number of meals, costs, staff, equipment, etc.

Between small and middle size canteens



Figure 3: Numbers of meals prepared per day

In average, each canteen prepares 87 meals daily, but it can vary between 40 and 180 depending on the schools. On the whole, 1/3 of the canteens serve between 40 and 60 meals/day, 1/3 serve between 60 and 100 and 1/3 serve between 100 and 180 meals/day (cf. Figure 3). Besides the meals prepared for their school, a quarter of the caterers encountered also prepare meals for other schools that do not have kitchen facilities (in average each of these canteens deliver 50 meals/day).

Canteens' supply: difficulties to respect products seasonality

In this rural area, the small grocery shop of the village has an important role to play regarding canteen supply, as 54% of the canteens buy all or some of their foodstuff from them. However, in average the caterers buy their foodstuff from 5 different suppliers (generally one for bread (which is most of the time the local bakery), one for fruit and vegetable, one for meat, one for dairy products and one for grocery products). Relating to fruit and vegetable, a large majority of the caterers (79%) asserts respecting the seasonality of the products in their menus and their supplies. Nevertheless, in practice, it is slightly different especially for the vegetables. While I was asking prices of the foodstuff, most of caterers took their last invoices (January to March) and many gave me the prices of tomatoes, cucumbers and peppers, which are absolutely not winter vegetable. None of the canteens follow the public procurement rules, even if many of them should, since the average foodstuff budget of a canteen is 17,390€ pre-tax/year and the threshold for public procurement is 15,000€ pre-tax. The foodstuff budget is highly correlated with the number of meals prepared, albeit some canteens prepared few meals with a high foodstuff budget (cf. Figure 4). According to this correlation, most of the canteens preparing

more than 75 meals/day have a foodstuff budget higher than 15,000€ pre-tax/year and should follow the public procurement rules.



Few data available about canteens' budget

It was difficult to get data about the budget and the foodstuff cost per portion. Very few caterers know the foodstuff cost per portion of the meals they prepared. When I contacted the managers of the canteens (municipality or association of pupils' parents) to get this information, I realised that not all of them made this calculation. Consequently, I had to estimate 35% of the foodstuff cost per portion from the annual foodstuff budget and an approximation of the number of meals served per year. It is even more complicated to have the total price of a meal (including foodstuff, energy, staff, etc.); I could get this information only for 5 canteens (21% of the canteens encountered).



The average foodstuff cost per portion is $1.70 \in$. It can vary between 1.32 and $2.82 \in$ depending on the canteens but for nearly one third of the canteens this cost is included between 1.60 and $1.80 \in$ (cf. Figure 5).

Meal price charged to parents does not reflect foodstuff cost per portion



Figure 6: Meal price charged to pupil's parents

The average meal price charged to pupils' parents is $2.97 \in$. This price varies between 2.30 and $3.85 \in$ depending on the canteens but for a good half of them the price is included between 2.80 and $3.20 \in$ (cf. Figure 6). The price charged to the parents does not cover the full meal cost² (foodstuff, energy, staff, etc.), the municipality pays part of this cost. This financial support is more or less important depending on the municipalities. The survey shows that there is no

² For information, the average full meal cost (including foodstuff, staff, energy and other charges) for the five canteens that answered this question is $4.55 \in$.

correlation between the meal price charged to the parents and the foodstuff cost per portion. In other words, it is not because the foodstuff cost is high that the price charged to the pupils' parents will be high too.

Kitchens equipped to cook from unprocessed food

Generally, the canteens are basically equipped but they have enough to cook from scratch. Nevertheless, there are large disparities among the schools. Some canteens have a unique room for the preparation, the dishes and the storage, while others have a distinct room for each operation. Regarding equipment, only 23% of the canteens have a steam oven and 25% a blast chiller. In most of the cases, the canteens equipped with these expensive facilities are the larger ones (preparing around 100 meals/day or more).

Canteen chef, a non-valued job

There are large disparities in term of staff among the canteens (working time, number of meal prepared per caterer, education, etc.). The education of the canteens' chef varies a lot; some had training in healthy diet, menu development, good hygiene practices, implementation of the $GEMRCN^3$ recommendations, etc. However, some cooks have few or no education related to catering, and part of them does not even know the *GEMRCN*. In 88% of the canteens, the canteen's chefs develop the menus, either alone or in collaboration with the manager(s) of the canteen. In the other cases, the canteens' managers impose the menus to the caterers. In addition, 21% of the canteens work with a nutritionist to develop or confirm their menus. Besides the low numbers of canteens working with a nutritionist, 50% of the caterers declare following (or at least try to follow) the *GEMRCN* recommendations.

Food waste, a rather well addressed topic but there is still a long way to go

Only 8% of the canteens do not take any measures to avoid waste. Many canteens (63%) serve the dishes on-demand according to how much the children want to eat, and 58% also serve bread on-demand. In 67% of the canteens, the chef is told every morning how many children are eating at the canteen in order to adjust the quantities prepared depending on the absentees. Nevertheless, some caterers highlighted that in some schools there is no planning for the children

³ The Groupe d'Étude des Marchés de Restauration Collective et Nutrition (study group of catering markets and nutrition) is a national organisation created in 2007 which provides guidelines concerning the frequency of food served (eg. fried food: served maximum 4 meals out of 20; raw vegetable or fruit: served at least 10 meals out of 20) and the quantities recommended for each type of guests (from baby to elders) (Ministère de l'Économie et des Finances, 2013).

eating at school (the parents do not have to register their children for the canteen in advance). Consequently, the cooks do not know in advance how many meals they have to prepare which is a problem to organise the food supply and adjust the quantity to command. Even if food waste seems to be an important topic, since in many canteens actions are implemented to reduce waste, very few caterers are able to estimate the amount of food thrown away.

A lack of communication between school and canteen in regard to education about food related issues

Schools and canteens take few measures to educate pupils about issues related to food. Children are aware of food waste in 63% of schools, of healthy diet in 50% and of the benefits of local/organic products in only 17% of schools (cf. Figure 7). It is important to highlight that many caterers (between 21 and 33% depending on the question) were not able to answer these questions. This result shows that there is a clear lack of communication between the school and the canteen. School and canteen do not work together on the issues related to food.



Figure 7: Canteens and education related to food issues

Retirement homes' canteens, a different organisation due to a bigger size and a higher frequency of meal preparation

For the retirement homes, we only had 6 interviews. Therefore, it is not very significant to make a quantitative analysis with averages, correlations, etc. that is the reason why I will present these results rather as a comparison with the school canteens' results.

As in schools, the size of the retirement homes is very diverse and the number of meals prepared per day (lunch plus dinner) varies between 50 and 230. The average is 140 meals per day and half of the canteens prepares between 120 and 160 meals per day. Because of their size, most of the canteens deal with large suppliers rather than with the small grocery shop of the village. Unlike the school canteens, all the public retirement homes encountered follow the public procurement regulations and use calls for tender. The private establishments (one third of the retirement homes encountered) do not have to follow these rules. The foodstuff budget per portion seems to be higher than in schools but it is also very difficult to get these data, very few caterers know these figures. All the caterers assert following the fruit and vegetable seasonality but like in schools, many use, for example, tomatoes and cucumber in winter. The kitchens of retirement homes are in general bigger and better equipped than the schools' ones. All of them have a steam oven and nearly all of them have a separated room for each operation (preparation, dishes and storage) and a blast chiller. Contrary to the school's cooks, the retirement homes' cooks have a better education in catering; all of them underwent a specific training and receive continuing further training. Nearly all the chefs are involved in menus development and, in some cases, commissions including managers and residents are involved as well. A great consideration is attached to healthy diet, and in all the canteens except one, a nutritionist approves the menus, therefore most of the canteens follow the GEMRCN recommendations.

This surveys shows that the Pays du Bocage territory is scattered with small to middle size school canteens. These small canteens are usually basically equipped but caterers prepare most of the dishes by themselves. Nonetheless, to equilibrate and diversify their menus, for most of the caterers it is difficult to follow vegetable seasonality. Surprisingly, in spite of their rather small size, many canteens should follow public procurement regulations.

Even though in many schools pupils are aware of food waste or balance diets, there is a lot to do regarding collaboration between the school and the canteens for all the issues related to food.

Furthermore, this survey shows that generally school canteens have few means in terms of foodstuff budgets, staff training, kitchen's equipment, etc. Consequently, catering is not a much-valued job and many of the canteens' chefs are not used to take initiatives in their kitchen.

Moreover, despite their lack of training in catering, some caterers develop menus by themselves. We can point out that canteens are not the priority of the municipalities, and albeit they have to deal with small budgets, canteens' management is rather imprecise. Many people in the catering sector complain about too high foodstuff prices but, as we have seen before, most of the caterers do not know what their budget to buy ingredients to prepare a meal is, there are improvements to do in regard to food waste, many managers do not even calculate the cost price of a meal, etc. Finally, they do not have a tight canteen's budget management. Moreover, in some places the canteen budget is misused: for example, there is a lot of staff to prepare and serve few meals or the foodstuff cost per portion is high while poor quality ingredients are used, etc.

3.1.2. The use of local products and organic products in catering

Actual practices in terms of quality, local or organic products: a rather well-spread use of local or organic products but in very small amount

There is a large confusion around the definitions of local products, short supply chain's products, organic products, etc. Caterers and canteens managers are not familiar with these concepts. Some people consider the products bought to the small grocery shop of the village or to a supplier established nearby as local products, even if these products are, for most of them, absolutely not from the area. Consequently, in the first place, it is not always simple to estimate and quantify the effective use of local or organic products. Nonetheless, we always explained to the caterers what we considered as local or organic products in order to obtain the most accurate estimate possible.

Very few school canteens use products with official quality marks like PDO, PGI, etc. and usually the caterers do not pay much attention to these quality signs when they order foodstuff. When I asked the question, several of them answered: "I don't know, we can check on the invoices if you want".



Figure 8: Percentage of local products in the foodstuff budget of canteens using them

However, currently many of the school canteens (58%) use regularly local products although these products represent minority purchases. Indeed, for nearly 80% of the canteens using local products, theses purchases represent less than 15% of the foodstuff budget (cf. Figure 8). The most used local products are (in order of importance): vegetable (mainly potatoes and in-season "summer vegetable"), meat (mainly through a local company that slaughter local animals and prepare the meat) and lastly dairy products. On the whole, the caterers (85%) are satisfied with the local products offer of their current suppliers. The non-satisfied cooks point out the limited local products offer of the suppliers and argue that this offer is not enough visible and insufficiently promoted.



Figure 9: Types of organic products use in school canteens

Regarding organic products (locally produced or not), a little more than a half of the school canteens (54%) use organic products. Nevertheless, only 21% of the canteens use organic products regularly, the others (33%) use organic products solely occasionally during "organic meal" or during suppliers' promotional offers (cf. Figure 9). Just like local products, organics products represent minority purchases and for 77% of the canteens using organics products these purchases represent less than 10% of the foodstuff budget (cf. Figure 10). The most used organic products are (in order of importance): dairy products (mainly yogurts and cottage cheese), fruit and vegetable (kiwis and in-season vegetable bought to local producers) and grocery products (pasta, semolina, bulgur, pulses, etc.). Some canteens also use organic eggs. Unlike local products, only half of the caterers are satisfied with the organic products offer of their actual suppliers. The unsatisfied cooks mention the limited organic products offer of their suppliers, the high prices and sometimes the products quality or preservation problems.

Share of organic products in the global foodstuff budget



Figure 10: Percentage of organic products in the foodstuff budget of canteens using them

Local or organic products use: no consequences on preparation time and meal cost

We could assume that using unprocessed local or organic products would extend the average preparation time but since most of the caterers currently cook from scratch, organic or local products use do not impact the preparation time. However, using local products implies dealing with more suppliers and that may affect ordering and deliveries receipt time, but we did not collect this information during the survey.

Table 1: Average foodstuff cost per portion according to the importance of local respectively of	rganic
products use in the canteens	

Share of <u>local products</u> in the global foodstuff budget	Foodstuff cost per portion (in €, taxes included)	
No local products	1,66	
<5%	1.72	12
5-9%	1.48	Ì Ì –
10-14%	1.99	e e
15-24%	1.32	era
25-49%	1.55	 \$
Average (whole sample)	1.70	

Share of <u>organic</u> <u>products</u> in the global foodstuff budget	Foodstuff cost per portion (in €, taxes included)	
No organic products	1.76	
<5%	1.63	٦ %
5-9%	-	-
10-14%	1.70	- 0
15-24%	-	919
25-49%	1.55	
Average (whole sample)	1.70	

A surprising result of the study was the non-impact of local or organic products used on the foodstuff cost per portion. In other words, the average foodstuff cost per portion of the canteens using local or organic products (respectively 1.72 /meal and 1.63 /meal) is overall similar (the differences are not significant) to the average foodstuff cost of the whole sample (1.70 /meal). (cf. Table 1).

Local or organic products: an almost non-existing demand from pupils or their parents but an important role of managers' request



Figure 11: Pupils or pupils' parents request for local products



Figure 12: Pupils or pupils' parents request for organic products

The pupils or their parents rarely ask for local or organic products (cf. Figure 11 and 12). Moreover, we can highlight that about one third of the cooks are not aware of potential requests in this regard made by parents to canteen's manager. The same applies to the managers, only 33% of them ask the caterers to use local products and 37% of them ask for organic products (cf. Figure 13 and 14).



Despite the small number of managers asking for local or organic products, there is a high correlation between the managers' request and the effective use of local/organic products. In other words, the higher the request of the managers is committed, the higher the local or organic products use is important. Nevertheless, a moderate request for local/organic products ("yes, if possible") leads to a large diversity in term of local/organic products use, which shows a relative freedom of the cooks to choose foodstuff (cf. Table 2 and 3).

Table 2: Degree of local products request by managers according to the importance of local products use in the canteens

Local products request by managers % local products	Yes "mandatory"		Yes "if possible"		Never	TOTAL
No local products	0%		17%		56%	42%
<5%	0%		17%		25%	21%
5-9%	0%		0%		13%	8%
10-14%	0%		50%		6%	17%
15-24%	0%		17%		0%	4%
25-49%	100%		0%		0%	8%
TOTAL	100%		100%		100%	100%

 Table 3: Degree of organic products request by managers according to the importance of organic products

use in the canteens

Organic products request by managers % local products	Yes "mandatory"	Yes "if possible"	Never	TOTAL
No organic products	0%	14%	67%	46%
<5%	0%	57%	33%	38%
5-9%	0%	14%	0%	4%
10-14%	0%	14%	0%	4%
15-24%	0%	0%	0%	0%
25-49%	100%	0%	0%	8%
TOTAL	100%	100%	100%	100%

Many interested and motivated caterers to use local and/or organic products



Figure 15: Interest of the caterers in local products



Most of the caterers (92%) are interested in introducing or using more regularly local products in their menus (cf. Figure 15). However only 21% show a great interest ("Yes surely") in local products. Regarding organic products, the differences are more pronounced. No more than 66% of the caterers want to introduce or use more regularly organic products and only 8% show a great interest for organic products (cf. Figure 16). Caterers see many advantages of using local or

organic products; they mention (classified by order of importance): improve the quality of the products used, promote local economy, have a direct link with the producers, reduce transport, use healthier and tastier products. The caterers also put emphasise on obstacles to local or organic supplies; they mention (classified by order of importance): the higher prices of these products, their lack of decision-making power and the potential delivery problems.

It is important to highlight that among the caterers interested in local and/or organic products, 62% assert being ready to take part in a "project group" in order to facilitate the change to local and/or organic supply. This result shows a real willingness of the cooks to change supply and manifests their potential involvement. Several caterers who did not want to be part of a "project group" pointed out a lack of time to be involved in this kind of project.

It is difficult to characterise the interest or not of the caterers in local/organic products or to establish a typology of the canteens that are more likely to be interested or not in local/organic products. There is no correlation between the management mode (municipality or association) and the willingness or not of the cooks to use local/organic products, no correlation between the number of suppliers currently used and the interest or not of the cooks about local/organic products.

It is also complicated to establish a link between the degree of current local supply and the willingness or not to introduce (or use more) local products since the differences observed are not significant. We can indicate that the caterers who are not interested in local products (8%) are actually caterers who already use local products but who do not want to increase the share of these products in their meals. On the whole, the caterers who already use local products are favourable towards these products, as 86% of them are keen on using more local products. In addition, all the caterers who do not use local products currently are interested in introducing them. It is different for organic products, the figures concerning caterers who do not want to use (or use more) organic products are significantly linked to the actual use or not of organic products. Contrary to local products, we observed that the caterers non-interested in organic products are mainly caterers who do not use them currently (75% of the non-interested cooks never use organic products). Likewise for local products, the caterers who already use organic products are favourable towards these products, as 85% of them are keen on using more organic products.





Figure 17: Local products that would introduced the caterers



Among the caterers interested in local products, fruit and vegetables are the most asked products, followed by dairy products and meats (cf. Figure 17). Unlike for local products, the opinions on organic products asked are more spread. Among the caterers interested in organic products, fruit and vegetables are the most asked products, followed by the dairy products (cf. Figure 18). It is important to note that a quarter of the cooks interested in organic products do not know which types of products they would like, this is probably due to their habit of using organic products during promotional offers. Organic meat is not a product that interests caterers contrary to local meat. It is the opposite for grocery products; local grocery products.

Local and organic products use in retirement homes: a practice linked to the willingness of caterers and managers

The use of quality products (as PDO, PGI, etc.) and local products is much more common in retirement homes than in schools, but the share of these products varies greatly among the establishments and is very dependent on the willingness of the caterers and the manager. All the retirement home canteens use local products: mainly meat, potatoes, in-season summer vegetable and dairy products. Nearly all the caterers are satisfied by the local products offer of their suppliers, except one, who would like to find more local fruit and vegetable. Most of the canteens also use quality products (as PDO, PGI, etc.) mainly for cheese and meat. However, only 2 canteens use organic products and these are minority purchases that represent less than 10% of the global foodstuff budget. The organic products used are vegetables bought to a local farmer during summer time. These vegetables are not bought because they are "organic" but rather because they are "local". The caterers who do not use organic products argue that this is

not useful to do so in retirement homes since the elderly are not much aware and sensitive to these issues.

Two thirds of the caterers met are interested in increasing the share of local product in their menus and it seems that these people show a real willingness to do so. For organic products, half of the caterers are interested in introducing or using more organic products. Retirement home caterers see many advantages of using local or organic products, the benefits mentioned are rather similar to the ones cited by schools' caterers: improve the quality of the products used, promote local economy, have a direct link with the producers and have the opportunity to try new things. The caterers mention only one obstacle: the higher prices. The caterers look for local dairy products, local fruit and vegetables, and local meat, and as well for organic fruit and vegetables.

In retirement homes, it seems that the caterers who already make an effort to prepare quality meals, use local products, etc. are ready to do more and better but the others are not willing to change and do more than what they currently do. This situation is clearly linked to the status given to meals in retirement homes; some establishments consider meals as "one of the last pleasures of the residents", other only consider meals as a necessity to feed the residents.

As we have seen, caterers are not familiar with the concepts of local products. Nevertheless, the use of local products (mainly some vegetables, meat and dairy products) is quite common but the volume of these purchases is very small. Concerning organic products, their use is rather punctual since caterers are used to promotional offers. Although caterers are fairly satisfied with the local products offer of their suppliers, many of them are not satisfied with the organic products offer; therefore, there is an opportunity for organic producers. The current use of local or organic products is mainly linked to the willingness and the request of the canteens' managers since the demand from "below" (pupils or pupils' parents) is almost non-existent.

A surprising result of the study is the non-impact of local or organic products use on the average foodstuff cost per portion. This could have been explained by the fact that generally the canteens using local or organic products use them in small quantities but this result is also verified in the canteens using a more important share of local/organic products.

Local product is a theme of interest for caterers since most of them are interested and motivated to introduce or use more these products. Regarding organic products, for some caterers there is a higher reluctance, which is hardly interpretable. This general interest in changing supplies may be due to personal motivations of the caterers since it is difficult to explain this willingness by the current organisation of the canteen. The willingness to work with better quality products, to promote local economy and to meet producers, are the main motivations of the caterers in using local and/or organic products. Nonetheless, caterers are aware of the potential difficulties to use local/organic food and their main constraints are: the high prices, their lack of decision-making power and the potential logistical problems.

3.1.3. The canteens' constraints to local catering supply

The proper constraints of catering organisation and functioning

The basic principal of catering to serve numerous meals with low prices does not help to organise local supplies. Moreover, caterers have high logistical constraints since they have to secure their supplies and be sure to have the quality and quantity of food required for the day they need them even though they often have limited storage capacities.

Common beliefs and groundless obstacles

Maybe due to lack of knowledge, caterers share received wisdom that prevent them from using local or organic products. Theses common beliefs can also be used as a "good excuse" not to use local or organic products. Many caterers think it is impossible to use local and/or organic products in catering because they are too expensive, but as we have seen before the average foodstuff cost of canteens using local and/or organic products is similar to the one of the canteens using only conventional products from wholesalers. Even if, taken one by one, local and/or organic products can be more expensive than conventional products from wholesalers, the balance of the annual foodstuff budget and a change of habits enable limiting the extra cost of local/organic products.

In regards to call for tender, caterers following public procurement rules argue that it is impossible to organise local supply using calls for tender although there are many ways to organise local supply through these procurement regulations.

Another common belief relate to health and sanitary regulations. Many caterers think that farmers' products would be "less clean" than industrial ones, many think that they are obliged to buy products under European health approval (which exclude part of the producers who do not have this sanitary seal) whereas only central kitchens have this obligation. Most of the canteens have performance obligations but not obligation of means; therefore, caterers could use any type of products including local products under national health approval and not necessarily under European health approval.

Reluctance of the caterers to change their practices

The survey showed that many caterers are resistant to change their current organisation. Many are used to flexible and multi-products distributors, thus they do not want to multiply their number of suppliers in order to deal with local producers and most of them are reluctant to have any kind of commitment with producers. These types of "contracts" are nevertheless essential for the producers to enable them to plan their production and propose attractive prices for catering. For most of the caterers, a change toward local and/or organic supply is not necessarily linked to a change of practices. Nevertheless these changes would improve canteens functioning, reduce costs and create room to introduce or use more local/organic products. To optimise the use of local/organic products and reduce potential extra costs, different measures can be taken like: reducing waste, cooking more from unprocessed products, changing menus and introducing vegetable proteins instead of animal proteins, etc. However, when we asked the caterers interested in local/organic products which changes would be necessary to introduce local/organic products, most of them demanded an increase of the foodstuff budget but few were ready to

Besides, many cooks pointed out that it is difficult to propose new and different products to guests. Whether for the children or the elderly, the guests are often reluctant to new flavour and products that they are not used to eat regularly. Therefore, caterers highlighted the risk of waste while proposing local or organic products that taste differently than conventional products.

Lack of power of the caterers

change their practice.

As we have seen before, there is a clear lack of communication between the caterers and the managers and between the caterers and the school. This lack of communication does not help the caterers to take initiatives. Many cooks told us that they were interested in local/organic products but before doing something they had to validate the idea with their management board. Many caterers do not dare take initiatives since, in most of the cases, they do not have decision-making power and the management board of the canteen takes all the decisions. In addition, many caterers are not invited to management board meetings; therefore, it is difficult for them to express their ideas and wishes. Nevertheless, it is important to note that this situation is not true in every canteen; in a couple of places, the cooks are free to do what they want since they respect the budget.



Figure 19: Summary diagram of the main results from the demand side, catering

3.2. The supply side: producers

There are a large variety of products available on the territory. For the meat (beef, pork and poultry), we encountered producers and processors: farmers, "artisans" and small food processing industries. For dairy products (cow and goat), fruit and vegetables and flour we only met farmers. For the rapeseed oil, we met an "artisan" (cf. appendix II.2). The types of farms and companies encountered are highly diverse in terms of size, distribution channels (direct sale or local sale through one intermediary), and sensitivity to local catering supply. Many producers

and processers (63%) already deliver catering (schools, colleges, hospitals, retirement homes, central kitchens, etc.) but this distribution channel is often punctual and very low in their turnover. According to their main production, the producers consider catering market differently.

3.2.1. Milk production, a structured and organised sector but very heterogeneous in term of production volumes

Milk production and processing: heterogeneous volumes according to the farms

The milk production varies a lot depending on the farms. The dairy goat farms produce between 15,000 and 25,000 l/year and all the milk produced is processed on the farm. The dairy cow farms produce between 200,000 and more than 1,000,000 l/year but only part of the milk produced is processed on the farm (between 13,000 and 1,000,000 litres), the rest is sold to dairy cooperatives. Even if there are some big farms processing a lot of milk, most of the farms (70%) process less than 200,000 l/year.

There are many types of products available locally: raw or pasteurised milk, *crème fraîche*, butter, goat's cheese, soft cheese like camembert, ice cream, yogurts, cottage cheese and cheese strainer. Furthermore, producers are quite innovative and 50% of them have projects to start processing new products. Concerning quality certification, only 30% of the dairy farms are certified organic, 40% of the producers do not participate in any specific quality approach and the rest (30%) are engaged in non-certified quality approaches (e.g. specific feeding guidelines for animals). Regarding sanitary regulations, more than half of the farms (60%) are certified with the European health approval. The others (40%) have an "approval derogation" which is a kind of national health approval; these farms are the smallest ones: generally processing less than 30,000 l of milk per year.

Organisation and distribution markets of the milk producers: a rather organised and structured sector

Most of the producers (80%) sell entirely their products through local distribution channels. The most important distribution channels are: on-farm direct sale, markets, local supermarkets and small grocery shops. The milk producers are rather "specialised" in one or another distribution markets, therefore each type of farm has its, one or two, main distribution channels. Milk producers set up rather well-organised logistics. All of them are equipped to do deliveries (good storage facilities and delivery vehicles) and 90% of them have a regular delivery activity with an established schedule (cf. Figure 20).





Figure 20: Map of the milk producers deliveries

Flexibility of the milk producers: a large opportunity to increase production volumes

Most of the producers are rather flexible and are ready to adjust their products offer to fulfil client expectations; they are generally looking for client satisfaction. All of them assert being able to increase their processing activity and even 50% of the producers are ready to increase their processing activity, the roduction by more than 75%. For 80% of the farms ready to increase their processing activity, the condition is to have one (or several) secured market(s) on the long run; for only 29% of the farms a production increase would require more workforce. In addition, 90% of the producers are ready to adapt their products offer (packaging, basis weights, etc.) to fulfil specific client expectations, like catering for example. Concerning deliveries, only 30% of the producers demand a minimum order of 35 to 50 \in for the customer to be delivered, for 50% there is no minimum at all, and for the others (20%) there is no minimum if the new customer fit into the current delivery schedule.

Milk producers and catering supply: catering a business like any other

Currently, 70% of the milk producers sell part of their production through catering but these deliveries are often punctual and very low in terms of economical outcome. Among the
producers delivering canteens, most of them deliver school catering, retirement homes and/or central kitchens. Some producers also deliver hospitals or rehabilitation centres. However, only one producer delivers catering through calls for tender. Regardless of the large number of producers delivering canteens, none of them assert knowing very well catering functioning, 50% state knowing rather well catering functioning, 40% declare not being familiar with this sector and the last 10% do no it at all.



Figure 21: Advantages of delivering catering cited by the milk producers

Producers consider many advantages in delivering catering, the most important ones are: diversify their distribution channels, create awareness for children, consolidate their turnover, strengthen social and territorial links (cf. Figure 21). Producers highlight also constraints but their opinions are rather diverse, the major ones are: specific packaging and basis weights required by catering, demanding conditions to deliver catering (e.g. sanitary approval, call for tender, etc.) (cf. Figure 22).



Figure 22: Constraints of delivering catering cited by the milk producers

More than half of the producers (60%) have the objective to develop their sales through catering (increase what they already do or create a new distribution channel for those who do not supply

canteens yet). Nonetheless, when we propose to the producers to deliver local canteens, all of them agree and they are already regularly supplying canteens (between twice a week and once every second week depending on the producers). All of them are ready to deliver directly to the canteens located, in average, at maximum 38 km of their farm. This distance varies between 20 and 80 km depending on the producers, but generally, most of the producers (80%) do not want to go further than 50 km. Many producers are accommodating to deliver canteens but 30% of them do not want to develop new delivery tours and would deliver only the canteens that fit in their current delivery schedule. Besides, 30% of the producers are also interested by a platform where they could drop their products and then somebody else would be in charge of the canteens' deliveries. Even if half of the milk producers assure that they do not need any help to supply canteens, many producers are interested to be helped: 40% would like to know better catering supply functioning and 20% would like to be introduced to commercial regulations and call for tender procedures. This wish to be helped and to have training session shows the motivation and the willingness of the producers to start delivering canteens.

We can highlight that milk producers are rather independent. Although all the producers who do not know at all catering functioning are interested by being helped, a quarter of those who are not familiar with this sector do not want any help or training regarding catering supply functioning. In addition, only 50% of the producers would be ready to build relationships with one another and cooperate in order to facilitate catering supply.

In conclusion, milk producers are rather business orientated and consider catering supply like a real, economically important, distribution market (as we have seen before, two of the four most important advantages quoted by the producers are: diversify their distribution channels and consolidate their turnover). Nevertheless, we should not forget that the producers also see a social dimension in catering supply and consider it as a mean to educate and create awareness among the consumers and a mean to strengthen territorial links. Even though their activity is already well structured (distribution markets, deliveries, etc.), this organisation is not inflexible and the milk producers seems to be greatly interested in delivering canteens (it is an objective for 60% of them). Furthermore, they are rather flexible to adapt to catering constraints (bulk packaging and basis weight, deliveries, etc.) because as they say "flexibility and adaptation to customer demands is our daily job".

3.2.2. Meat producers and processors, stakeholders deeply committed to the quality of their products

Meat production and processing: farmers and processors two distinct activities

The people encountered in the meat sector are very diverse: we met 6 animal breeders who sell part of their meat production directly to customers and 4 processors who carve and prepare meat. Consequently, their functioning is entirely different: the producers sell meat from animals raised on their farm and the processors have various sources of supply. Some use only meat from the region, others buy meat from western France and one buys meat from all over France (therefore it is not local products anymore).

Concerning sanitary regulations, 60% of the producers/processors are certified by the European health approval, 10% have an "approval derogation" (which is a kind of national health approval) and the rest who do not have health approval do not need it because these are farmers who sell their meat that have been slaughtered and prepared by an approved company. Relating to quality certification, 40% of the producers/processers are certified organic, 30% of the producers/processors do not participate in any specific quality approach and the rest (30%) are engaged in non-certified quality approaches (e.g. specific feeding guidelines for animals).

Organisation and distribution markets of the meat producers and processors: multiple distribution channels

All the producers/processors sell at least half of their products locally but only 50% of the producers/processors sell the entirety of their products locally. There are no real dominant distribution channels except that 60% of the producers/processors sell their products on-farm or at the processing plant. Therefore, there are multiple channels used as: local wholesalers, box schemes, local supermarkets, national wholesalers, organic shops, restaurants, markets, etc. For animal breeders, direct sale of meat is rather a punctual activity unlike the processors for whom it is their principal activity. That is why 70% of the producers/processors do deliveries but only 20% have regular deliveries with a fixed schedule. Some processors do part of their deliveries by their own means albeit all of them use also external delivery services.

Flexibility of the meat producers and processors: few opportunities in terms of production volumes and deliveries

The meat producers and processors are rather flexible in term of products offer since 90% are ready to adapt their offer to client demands. Nevertheless, regarding volumes, the evolution is more limited. Even if 80% of the producers/processors affirm being able to increase their

production, half of them are not able or do not want to increase their production by more than 25%. Even though the producers are accommodating regarding product offers, in terms of delivery, 80% demand a minimum order. This minimum order is: a package of about 10-12 kg for meat sold on-farm, or, either a total of $100 \in$ or a volume of 40 to 100 kg fixed by the processors.

Meat producers/processors and catering supply: a way to promote quality products

Currently, 50% of the producers/processors sell their products through catering. Even though some producers deliver canteens, these deliveries are rather punctual because it is difficult to equilibrate cheap cuts and high quality cuts and balance the carcasses, since canteens require large quantities of a same piece. Similarly to milk producers, meat producers/processors deliver mainly school catering (from nursery schools to colleges), but those for whom catering is a larger distribution market deliver retirement homes, hospitals, prisons or company canteens as well. Among these producers/processors delivering canteens, only a processor does it through catering, 30% of the meat producers for whom none of them asserts knowing very well catering, 30% of the meat producers/processors do so (n.b. there are only processors in this category). Besides, 20% state knowing rather well catering functioning and 50% declare not being familiar with this sector.



Figure 23: Advantages of delivering catering cited by the meat producers and processors

The most important advantages of catering, cited by half of the producers/processors, are: diversification of distribution markets, awareness development among children and promotion of quality products in catering (cf. Figure 23). The producers/processors see various constraints in catering supply and their opinions diverge (there are few consensus). The most cited constraint is the inappropriate volumes (too large for some producers and too little for others), next comes the problem of carcass balance (cf. Figure 24).



Figure 24: Constraints of delivering catering cited by the meat producers and processors

Only 20% of the producers/processors have the objective to develop their sales through catering. However, this information should be taken in its context, since overall, meat producers and processers do not plan to develop their sales through new distribution markets, as stated by 50% of them. Besides, after suggestion, 70% of the producers/processors assert being ready to regularly deliver canteens (between twice a week and once every two weeks) and the others are rather interested in punctual deliveries when canteens organise specific meals. In order to reduce constraints like carcass balance, large volumes, etc., many meat producers (67%) would be ready to cooperate and work together to deliver canteens on condition of working with same quality products. Regarding logistics, 80% of the producers/processors are ready to deliver canteens that are located, in average, at maximum 32 km of their farm/company. This distance varies a lot: between 20 and 60 km depending on the producers are flexible to deliver canteens and more than half of them (63%) are ready to develop new delivery tours for canteens.

Meat producers and processors are rather independent as well: 70% affirm that they do not need any help delivering canteens and paradoxically in this group of "non-interested in training", there are 60% of people who are not familiar with catering. The 30% of the producers/processors interested in training about catering supply functioning are all the people who know rather well this sector and part of the ones who are not familiar with catering.

To conclude, more than being only a distribution market, meat producers and processors consider catering as a means to promote quality and tasty products in canteens, to educate consumers and to convey a positive image of their farm or company. For meat producers (animals breeders) catering is a particularly difficult market since they are subjected to tough sanitary regulations and concerning their organisation: when they slaughter an (or several) animal(s) they have to sell all the meat pieces of the animal but catering requires only one piece

type in large quantities. This may explains why most of the producers who already work with catering will continue what they do currently, but they will not produce more for catering because: it is not within their organisation/their way of working or they do not have enough time for that or they do not have the necessary volumes, etc. In spite of these constraints, we should not forget that some producers are interested and motivated by catering market. The processors, for their part, are strongly interested in catering. Especially beef processors for whom catering is a mean to sell cheap cuts that are not in great demand from individual consumers.

3.2.3. Fruit and vegetables production, a sector oriented toward individual customers but rather interested in catering

Fruit and vegetables production: many small-scale producers

Fruit production is quite scarce on the Pays du Bocage territory, there are no specialised fruit grower; among the 7 vegetable producers encountered 2 are also fruit producers (producing mainly apples). The fruit and vegetable sector is progressing and 71% of the producers plan to diversify their product range by developing new processed products like for instance: canned vegetables, soups, tomato sauce, jams, fruit coulis, fruit syrups, etc. The organic production is well-spread and 63% of the fruit and vegetable producers are certified organic; in addition, another 14% are certified integrated agriculture.

Organisation and distribution markets of the fruit and vegetables producers: a large majority of on-farm sales

The majority of the producers (86%) sell all their products locally, the other sell most of their products locally but a little part of the production (not more than 15%) travel a bit further before being sold. Concerning distribution markets, the production is mainly oriented towards individual customers. Most of the producers have many distribution markets but nearly all of them (86%) sell their products on their farm. The other important distribution channels are: CSA, markets, restaurants and organic shops. All the producers do deliveries if needed, but since most of them sell principally on-farm, only 29% have a delivery schedule.

Flexibility of the fruit and vegetables producers: many opportunities through client commitment

In terms of offer, the producers are rather accommodating and 71% are ready to adjust the type of vegetable they grow and the packaging to respond to client demand. However, concerning volumes, it is more difficult. Even if most of the producers (86%) are ready to increase their production, provided having a secure market on the long run, this increase is often low and

limited by the needs for workforce, land and storage facilities. Furthermore, a third of the producer ready to increase production would do so if they had a client commitment in advance in order to know which vegetables they should grow. Concerning deliveries, producers are flexible as well: 71% of them do not have minimum order, 14% have a minimum order of 75 to 100€ and the last 15% do not have minimum order if the new customer is close to current delivery points.

Fruit and vegetables producers and catering supply: a willingness to improve meals' quality

Although fruit and vegetables producers are mainly oriented towards individual customers, they are already 71% to deliver catering, but these sales have a very small weight in their turnover. Like milk and meat producers, fruit and vegetables producers deliver mainly school catering and essentially nursery and primary schools, which are often small establishments. One fruit producer also delivers central kitchens but none of the producers responded to call for tender. Fruit and vegetable producers are rather familiar with the catering sector: 29% assert knowing it very well, 29% affirm knowing quite well catering functioning and 42% are not very familiar with this sector.



Figure 25: Advantages of delivering catering cited by the fruit and vegetables producers

The three main advantages of catering cited by the fruit and vegetables producers are: educate and develop awareness among children, promote quality and tasty products in catering and strengthen social and territorial links (cf. Figure 25). Unlike the milk and meat producers, fruit and vegetables producers converge to two main catering constraints that are: the low price and the inappropriate volumes (too little or too big depending on the producers). Another frequently mentioned obstacle to catering is the heavy procedure to access catering market through calls for tender (cf. Figure 26).



Figure 26: Constraints of delivering catering cited by the fruit and vegetables producers

Less than a third of the producers (29%) plan to develop their sales through catering but after suggestion, 86% are ready to regularly deliver canteens (between twice a week and once every second week). The 14% left would rather prefer a punctual supply mainly to sale their over-production. Aware that their farms are not the most suitable to deliver catering (limited land, production oriented toward individual customers, etc.), most of the producers (86%) are ready to build relationship between each other and cooperate in order to deliver more easily catering on condition of working with same quality products. Concerning logistics, all the producers are ready to deliver canteens located, in average, at maximum 31 km of their farm. They are rather unanimous on this figure as the distance varies only between 20 and 40 km depending on the producers. Despite the fact that all the producers agree to deliver canteens, many of them (57%) are also interested by a single delivery point, i.e. a platform that would be in charge of canteens' deliveries.

Regarding training, the producers are rather in favour, since only 43% of them do not want any help, but their opinions differ. Although 50% of the ones knowing very well catering and all the ones knowing rather well catering are interested in training, 67% of the ones who are not familiar with this sector do not want any help. On the whole, 57% of the fruit and vegetables producers are interested in being introduced to commercial regulations and call for tender procedures, 43% would like to know better catering supply functioning and 14% want to learn about marketing strategies to promote their products.

In conclusion, even if catering should stay economically viable for fruit and vegetables producers, most of them do not see business in this distribution channel but are rather interested in this sector by personal convictions (educate consumers, bring them closer to the producers, promote quality products, etc.). Fruit and vegetables producers seem to be strongly interested in catering (flexibility, cooperation, training, etc.) albeit one of the main constraints they highlight

is the low price paid by catering to producers. However, some fruit and vegetables producers should keep in mind that if they choose to deliver catering it is a fledged distribution market and not only a means to sale overproduction.

3.2.4. Grocery products: flour and rapeseed oil, two growing businesses interested in local catering

Flour and oil processing: two innovative sectors

The rapeseed oil processor is an artisan who buys locally produced rapeseed (at regional scale). His oil is currently mainly sold for construction works, industrial use or animal feed but he would like to develop his production of oil for human consumption, which has a much higher added value. Through this development, he would like to diversify his product range and further process rapeseed oil to make salad dressings, flavoured oil (e.g. spiced oil) or mayonnaise.

The flour producer makes flour out of wheat or rye grown on his farm but also buys some cereals to neighbouring farms if needed. The flour is certified organic.

Both rapeseed oil and flour productions are new activities created recently, that are currently evolving and developing fast.

Organisation and distribution markets of flour and oil producers: local products for local outlets Both of the producer and processor sell the entirety of their production locally, their main distribution markets are: on-farm sales or at the processing plant, small grocery shops, local supermarkets. The flour producer sells as well through organic shops and CSA. Only the flour producer has a regular delivery schedule, the oil processor uses external delivery services.

Flexibility of the flour and oil producers: opportunities to increase and adapt production

Both producer/processor are rather accommodating, they are ready to increase their production if they have a secure distribution market on the long run and they also agree to adapt their products offer in terms of packaging, basis weight, etc. to adjust to client demand. The flour producer does not require minimum order but, through his external delivery service, the oil processor demands a minimum order of 27 bottles.

Flour and oil producers and catering supply: a willingness to promote quality products

Solely, the flour producer currently supplies catering. He delivers only school catering, from nursery schools to colleges. The oil processor states not knowing at all catering functioning and the flour producer says not being very familiar with this sector.

Both of them consider many advantages in delivering catering, both mentioned: diversify distribution markets, promote quality products in canteens, create awareness among children, strengthen social and territorial links and preserve the environment. In regard to constraints, both of them agree on the low prices paid by catering. The oil processor also highlights the demanding delivery conditions and the flour producer points out the heavy procedure to access catering market through calls for tender.

The flour producer plans to develop its sales through catering. He is ready to regularly deliver canteens located at maximum 60 km of his farm. For the rapeseed oil processor, catering market was not one of its current objectives but he does not exclude it and he is ready to deliver local canteens. Both of them are also interested by a platform to collect local products and distribute them to catering.

Flour and rapeseed oil production are both new businesses. Their managers are dynamic and interested by catering that they do not consider as economically profitable but rather as socially beneficial though the promotion of quality products, the development of awareness among children, the strengthening of territorial links, etc.

The various production sectors work differently and the producers are not all looking for the same outcomes from catering. To summarise, milk producers are rather business oriented and consider catering as a business like any other. For meat, flour and rapeseed oil producers and processors more than being only a business, catering is also a way to promote quality products. For their part, fruit and vegetables producers are more interested in catering with the objective to improve meals' quality and educate consumers about healthy food. Furthermore, since milk and meat producers and processors are more used to work with large-scale distribution, they do not perceive catering prices as a major constraint to work with this sector, unlike the flour, oil, fruit and vegetables producers are looking to sell large volumes through catering therefore they are not interested by small canteens, while others are "afraid" of the quantities required by catering since they do not plan to sell big quantities through this market. Nonetheless, overall, most of the producers are interested in catering and it seems that they have a strong willingness since most of them are ready to adjust their products and their organisation to respond to catering demands.

This general concern regarding catering makes it difficult to identify the sectors that are most able to deliver canteens. Nevertheless, it is important to note that even if most of the producers are ready to make concessions, it is not the case for all of them. Some producers are ready to be involved and to devote time in the implementation of local catering supply while others are more passive and just expect a new distribution market through catering. However, there is no correlation between the degree of producer interest/potential involvement and their sector, the size of their farm or the fact that they already deliver or not catering, etc.

Producers are not all looking for the same outcomes from catering but most of them are motivated by personal convictions and are sensitive to the issue of food in catering. They want to improve quality of meals in catering and educate consumers: show them where food comes from, what are tasty products, etc.

3.2.5. The producers' constraints to local catering supply

Lack of experience of the producers in delivering catering

Although many producers already deliver canteens, these deliveries are often punctual, outside calls for tenders even in establishments submitted to this regulation. Moreover, catering market is more demanding than direct sales to individual customers in terms of quality, regularity, standardisation, etc. but farmers do not always understand why. For instance, in regards to fruit and vegetables, catering requires graded products in order to reduce waste when they use potatopeeling machines or when they propose an apple to the guests they should all have a fruit about the same size. In addition, if producers choose to deliver catering, it is an extra workload and a new dimension to their work, since they have to handle two different activities: production and commercialisation/distribution. However, producers are not trained to be distributors; thus, they sometimes lack of professionalism in terms of invoice management, logistics, etc. and they do not have time to canvass catering, as wholesalers will do. On the other side, caterers expect to have computerised invoices, to be called for promotional offers, etc.; therefore, they sometimes lack of confidence in producers and do not assume that producers can be as reliable as any other suppliers.

Lack of organisation of the agricultural sector

An important weak point of the producers is the lack of collective organisation. The producers in the Pays du Bocage are rather independent and there is no organisation to gather, for example, producers from a similar production sector, overall there is a lack of "group spirit". Nonetheless, if producers want to deliver canteens, they need to have a visible offer for the caterers and this requires a minimum of structure of the sector. Currently, if a caterer want local products he has to contact individually different producers to find all the products he needs, but obviously he

does not have time to do that. This is a bit of a vicious circle since producers will not create any kind of organisation if they are not sure that caterers are interested by local products, but caterers will not be interested by local products if there is no clear offer.



Figure 27: Summary diagram of the main results from the supply side, producers and processors

3.3. Matching between supply and demand

First, I should specify that we did not expect a 100% local or local organic supply of catering, as we know that not all the products necessary are available on the Pays du Bocage territory. The objective is rather to start with some specific products and then extends the process to new products to increase gradually the share of local/organic products.

In regards to matching in terms of quantities, it was impossible to assess this aspect during the survey. We could not have the quantities used annually by the canteens of the territory since nearly none of the caterers calculates them. Similarly, it was very complicated to know the quantities produced annually by the producers/processers because most of them argue that these quantities can change from year to year, these quantities are not fixed features but they evolved according to the demand, etc.

Concerning matching in terms of types of products asked and types of products available, it may be a bit difficult for fruit and vegetables but appropriate for other products especially for dairy products and beef meat.

As we have seen in the results, caterers are especially interested in local or local organic fruit and vegetables but the local offer for these products, particularly for fruit, is not very large and will be able to meet only part of the demand. Most of the local vegetable offer is certified organic which is a good point to respond to catering requests (since caterers asked for organic vegetables) but the main challenge of the vegetable sector is the small size of their farms that are oriented towards individual customer markets. Nonetheless, if this high demand of local/organic fruit and vegetables from catering is confirmed, it could incite the setting-up of new vegetable and fruit producers.

The demand of caterers for local or local organic dairy products can be met by local producers since there is a high diversity of products available on the territory and producers have a rather high flexibility in terms of production volumes. Nevertheless, there are not many organic producers of cow dairy products. Furthermore, the main challenge relates to the simplest product that is milk; because catering is used to long-life milk that can be stored at roomed temperature but local producers do not offer this product. Consequently, caterers will have to adapt their practices in order to use local milk.

More than a third of the caterers asked for local meat, this demand might not be satisfied for all types of meat but for beef there is a high potential of local supply (as a reminder the agricultural production of the territory is mainly oriented toward cattle breeding: beef and dairy cows). As we have seen before, direct sale of meat between producers and catering is quite complicated;

consequently to fully realise this potential there might be a need of intermediate organisation to make the link and coordinate meat sales.

A quarter of the caterers asked for organic grocery products, unfortunately the local offer for these products is not well developed; there is only one organic flour producer. Nevertheless, flour can be a simple product to start with and a good opportunity for the growing business of the flour producer.

Additionally, overall caterers are poorly satisfied with the organic products offered by their current suppliers therefore local organic producers have a great opportunity to respond to this latent demand.

4. Discussion

4.1. Comparison of my results with other surveys in France and Europe

I have chosen to compare the main results of my study with corresponding elements found in other documents that show similarities or differences. The aim of this comparison is to define if there are disparities or not between local catering supply in rural and in urban areas, and if it is easier to implement such projects in rural territories rather than in urban ones. Overall, this survey shows similar results to other different studies conducted in France and Europe but there are also some discrepancies. Furthermore, this survey highlights some elements that are not mentioned in other studies.

In relation to canteen organisation

Many authors argue about the lack of equipment in kitchens to cook unprocessed food and the habits of the caterers to cook from "pre-prepared" food but this situation was not encountered in our survey (Praly et al., 2009; Ba et al., 2010; Bottois et al., 2010; Antheaume and Schieb-Bienfait, 2012;). This result may be explained by the small size of the canteens encountered compared to the other surveys, which makes small deliveries of "pre-prepared" food by large companies not profitable.

In England, Finland and Italy, researchers also highlight the need to educate children about food related issues (nutrition, sustainable production, etc.) and the importance of the cooperation between the school and the canteens in this regard (Mikkelsen et al., 2005; Sonnino, 2009; Risku-Norja and Mikkola, 2010). As in our paper, other studies show the lack of appreciation of caterers' job; in addition, these studies suggest that the use of quality product can reinvigorate caterers and reassert the worth of their job (Beraud-Sudreau, 2010b; Douarche, 2010).

In relation to change towards local or organic products

Catering fundamental constraints (low meal prices, logistics challenges, etc.) are similar everywhere in rural and urban areas, in France and Europe (Nölting, 2009; Praly et al., 2009; Ba et al., 2010; Douarche, 2010; Spigarolo et al., 2010). Other obstacles like: the lack of knowledge of caterers and managers in regard to local product, short supply chain, organic or integrated agriculture, etc.; the difficulty to change caterer habits and their common beliefs; and the challenge to offer new and different products to the guests, are also mentioned in several studies (Dumas et al., 2009; Beraud-Sudreau, 2010b; Bottois et al., 2010; Le Velly and Bréchet, 2011; Sengelen et al., 2011; Antheaume and Schieb-Bienfait, 2012).

Despite these obstacles, the caterers I have met are not the only ones interested by better quality products through local or organic products, this willingness from the cooks is also found in several places around Europe (Mikkola, 2009; Beraud-Sudreau, 2010b; Douarche, 2010; Sengelen et al., 2011). Relating to the choice between local or organic, in this survey caterers are more interested by local products like in the study of Ba et al. (2010) where caterers consider local products more accessible than organic ones. However, in another study conducted by Sengelen et al. (2011), organic products are more used and more demanded than local products; according to them, this is because organic is already "well-distributed and normed" which is not the case of local considered as "emerging".

Outside France, in England and Italy, the implementation of local or organic catering supply in schools is partly due to pupils' parents demand and involvement (Morgan and Sonnino, 2007; Sonnino, 2009). This is absolutely not the case in this paper and in a study conducted around Paris, where the demand from the guests or the pupil's parents is nearly non-existent (Sengelen et al., 2011). Consequently, in these French cases, parents demand will not facilitate local catering supply.

The question of the prices of local or organic products is quite challenging. Just as in this study, various authors show that a major constraint to turn to local or organic supply is the foodstuff budget (Nölting, 2009; Praly et al., 2009; Spigarolo et al., 2010). Nevertheless, one of our results is the non-impact of local or organic food use on the average foodstuff cost per portion. Similarly, other authors also highlight that caterers already using local food do not highlight the issue of over-cost, that some cooks are aware that local products are not obviously more expensive than conventional ones, or that even with low foodstuff budget canteens succeed to buy local products (Dumas et al., 2009; Douarche, 2010; Sengelen et al., 2011). Consequently,

the budget constraints seem to be rather an obstacle in the start of a project of local supply, rather than an issue for canteens already using local products (Beraud-Sudreau, 2010b).

In relation to producers

Few studies about local catering supply interviewed producers, thus it is hard to say if this widespread interest to deliver canteens is shared in other territories. Nevertheless, some studies conducted in urban areas of France (Nantes and the metropolitan area of Paris) point out the lack of interest of farmers involved in direct sales to deliver canteens that they consider as a less remunerative market than sales to individual customers (Ba et al., 2010; Antheaume and Schieb-Bienfait, 2012). This situation is not true in our rural territory, maybe because some producers already struggle to find individual customer markets.

As I have said before, through catering, producers are not all looking for the same delivery amounts; this challenge of bridging producers volumes and quantities required by canteens was encountered in other studies in rural or urban areas (Ba et al., 2010; Douarche, 2010). Nonetheless, Dumas et al. (2009), in their survey, show that small canteens should be favoured targets to start with.

Regarding producers' constraints to deliver canteens, like in rural areas, the lack of organisation of the agricultural sector seems to be a major obstacle in many urban areas of France (Lyon, Paris and Nantes) (Dumas et al., 2009; Ba et al., 2010; Antheaume and Schieb-Bienfait, 2012). Furthermore, as I have pointed out before, this problem of producers structuring is a vicious circle; other authors came to similar results and specify that, in the topic of local catering supply, everybody is waiting for each other to start (Beraud-Sudreau, 2010a; Le Velly and Bréchet, 2011). Other constraints pointed out in this survey, particularly: invoicing and deliveries, are also encountered in other studies (Dumas et al., 2009; Douarche, 2010). In relation to this last point – the lack of professionalism of some producers which causes reluctance of some caterers to use local product– a survey conducted in Sweden emphasises the importance of building a trustful relationship between producers and buyers in order to implement long-term catering supply (Kakriainen, 2005).

Besides these comparisons, some results pointed out in my survey are not mentioned in any of the studies I found; namely: the problem of canteen management that is not a sector of interest of municipalities, the lack of decision-making power of the caterers, and the strong personal motivation of the producers to improve quality of meals in catering and educate consumers. Consequently, we can wonder if these elements are characteristic of rural areas in general or if

they are only specific to the Pays du Bocage territory. Nevertheless, the two first elements (imprecise management and lack of power of the caterers) are rather obstacles whereas the last one (producers convictions) will promote local catering supply development; therefore it is difficult to conclude that if taken together, these elements will have a positive or negative impact on the whole situation.

To conclude, despite these potential hindering and enhancing forces that might be specific to the Pays du Bocage, in general, local catering supply does not plainly seem easier in rural than in urban territories. As we have seen in this section, rural catering shares most of the constraints of urban catering in regards to local procurement. Even though small rural canteens are better equipped and more used to cook from unprocessed food, which leads to less changes in cooking practices to turn to local supply; this secondary element will not considerably help to implement local supply in rural areas since there are many other constraints to overcome. Moreover, in spite of the higher geographical proximity between caterers and producers in rural areas, the expected social proximity and knowledge of each others sector is not noticeable and the gap between these two key actors is similar in cities and in the countryside. A last features of rural catering that is difficult to classify as a benefit or a constraint is rather the small size of the establishments. This element is an advantage for producers looking to deliver only small volumes through catering (often the vegetable growers in our case study) but also a drawback for the producers looking to deliver large volumes because they will have to do many small deliveries.

4.2. Success factors and action-levers to overcome the constraints of local catering supply

This section presents some action-levers to facilitate local catering supply, the list is not exhaustive, not all the possibilities are developed in this report but the ones developed bellow match with the needs identified in the Pays du Bocage (i.e. a rural territory). The solutions are not universal but each action must be adapted to the existing local conditions and must be developed through a common agreement among the actors.

4.2.1. Solutions to limit additional costs of local or organic products

There are several ways to limit the potential additional costs of local or organic products. A first point is to target specific products to start with and do not try "everything at the same time". These specific products can be products largely available on the territory for which it possible to

keep prices competitive or products that are not submitted to sanitary regulations (i.e. no dairy or meat products), etc.; these specific products depend on the particular area where the project of local/organic supply is implemented. It is important to introduce these products on the long term and not only punctually, in this way it is possible to negotiate prices through commitments with the producers and it makes easier order management for the caterers (Bunod and Perru, 2010; DRAAF Rhône Alpes, 2010). Furthermore, it is essential to respect seasonality in order to reduce extra-cost, obviously tomatoes are much more expensive in winter than in summer (Dumas et al., 2009). A second point can be the reduction of food waste in order to limit misuse of foodstuff budget and to use this money saved on better quality products (Bouchez et al., 2012). The third point concerns food and cooking habits, since meat is the most important part of the foodstuff cost per portion, a reduction of this element can have a significant impact on cost reductions. First, in some canteens it is possible to reduce meat portion to be in line with the *GEMRCN* recommendations (as in some places meat portions are too big). Second, it is possible to develop new menus including vegetable proteins instead of animal proteins (Labriet et al., 2010).

these measures and to learn new ways of cooking. Guests should also be introduced to these new meals and become aware of the importance of these changes.

4.2.2. Train caterers and develop awareness among guests

Communication towards the guests is very important. For them to understand a project of local/organic supply, to accept different menus and new flavours, guests have to be aware of food sustainability issues (Sonnino, 2009; Risku-Norja and Mikkola, 2010). In schools, part of this awareness development can be integrated in the curriculum through farm visits, design of a vegetable garden, cooking sessions, etc. (Adam et al., 2008; Labriet et al., 2010). In all the canteens, actions can be taken during meals time like for instance: meeting with a producer for him to present his product, testing sessions of new products (e.g. yogurts, different apple varieties, etc.) (Mikkelsen et al., 2005; Nölting, 2009).

Caterer training is also a key point; as we have seen before, they must learn how to reduce food waste, how to develop menus including vegetable proteins and how to cook these dishes. Another measure can be the introduction of slow cooking methods for meat, for example, which enable a better cooking efficiency and a lower weight loss (Labriet et al., 2010; Bunod et al., 2011; CIVAM and FNH, 2011). Similarly there are many actions and measures in regard to sustainable practices to develop with the caterers (Morgan and Morley, 2002). This learning can take place during training sessions and/or through caterers working groups where they can

exchange about their experience and practices. Besides this "in kitchen" training, to close the gap between cooks and farmers, caterers should encounter producers to understand how they produce, what their issues are, etc. Similarly, producers should also visit caterers in their kitchen to understand their constraints, and for instance, see how a potato-peeling machine function and why it is important to have graded potatoes to reduce waste (DRAAF Rhône Alpes, 2010; Spigarolo et al., 2010; ARPE Midi-Pyrénées, 2012).

4.2.3. Use existent networks and work with local distributors or wholesalers

Instead of setting up everything from scratch, using existent facilities and networks can be helpful to start with (Le Velly and Bréchet, 2011; Messmer, 2013). To facilitate matching between offer and demand and to make the link between producers and caterers, local distributors or wholesalers can play a key role and be integrated in a project of local catering supply since it is difficult to create a specific intermediate organisation dedicated to local catering supply and to ensure its viability (Bottois et al., 2010). As mentioned before, distribution is not obviously the job of producers, consequently distributors can be in charge of this task since they have experience with logistics, invoicing, etc. (Ba et al., 2010). Nonetheless, adding an intermediary between producers and consumers can be against the aim of the project and can add to the misunderstanding of the caterers concerning the definitions of local products, short supply chain, etc. Therefore, it is important to closely define the role of the intermediary. Even though distributors/wholesalers lengthen the distance between producers and consumers, since they already network all the territory with their delivery tours, they can optimise logistics and avoid additional green house gas emissions due to same circuits made by both producers and wholesalers (Dumas et al., 2009).

4.2.4. Integrate the project of local catering supply in a larger framework, the importance of political support

As presented previously, most of the stakeholders (caterers and producers) associate local supply with promotion of local economy or reinforcement of territorial links, etc. Therefore to strengthen a project of local catering supply and reach a maximum of stakeholders it could be interesting to include the scheme in a wider perspective like: local economical development, vitality of rural territories, protection of natural resources (if local organic products are chose), sustainability education, etc. (Risku-Norja and Mikkola, 2010; Antheaume and Schieb-Bienfait, 2012).

In her study about local catering supply in Sweden, Kakriainen (2005) highlights "the importance of municipality decision making" in regard to this kind of project. She concludes that the relevant question to raise is "whether the (rural) municipality is considered as a whole or sector by sector". She compares the municipality as a farm where all the sectors are connected and interdependent, therefore if the municipality put a bit more money on one sector it will help other sectors (Kakriainen, 2005). The crucial need of political support from local authorities (i.e. the municipality in the case of nursery and primary schools) is pointed out in numerous studies (Morgan and Morley, 2002; Beraud-Sudreau, 2010b; Labriet et al., 2010; Spigarolo et al., 2010; Bouchez et al., 2012; and many other). The initiating actor is the demand, if there is no demand nothing will happen (AFIP Bourgogne Franche-Comté and CFPPA de Montmorot, 2008; Ba et al., 2010; Messmer, 2013). Regarding public catering, the management is assumed by the public sector, thus controlled by the politicians; and without political support, it is very complicated to implement local catering supply. In a first time, local authorities should initiate the dynamic by, for example, inviting the main stakeholders to involve in such projects (Spigarolo et al., 2010). Later in the long run, local authorities should maintain the dynamic and support the project.

4.2.5. Create a local dynamic, encourage all the stakeholders to work together

Even though the role of politicians is very important, local catering supply should not be a top down approach but must include many different stakeholders (caterers, canteen managers, producers, wholesalers, guests, pupils' parents, etc.) since all of them have a role to play (Mikkelsen et al., 2005; Ba et al., 2010; Bunod et al., 2011; Sonnino and McWilliam, 2011). A first simple step, is to bring together the various actors as most of them do not know each other (Le Velly and Bréchet, 2011; Antheaume and Schieb-Bienfait, 2012). In order to develop a project suitable for everybody, it is essential to favour dialogue and consultation among the various stakeholders of the territory and to create cooperation dynamics (Spigarolo et al., 2010). All stakeholders more or less linked with the project should feel involved to not consider the project as imposed and thus reject it. It is necessary to establish a relationship of trust within the group since each actor will have to make concessions and together the actors will have to find compromises (Beraud-Sudreau, 2010b; Hinrichs, 2014). The implementation of local catering supply through a collective initiative is long and laborious, consequently to maintain the dynamic and the motivation of the stakeholders it is imperative to communicate around the process and highlight the progresses of the project (Bouchez et al., 2012; CIVAM and FNH, 2011; Kakriainen, 2005).

Besides the collective strength, personal involvement is also a significant factor (AFIP Bourgogne Franche-Comté and CFPPA de Montmorot, 2008; Dumas et al., 2009; DRAAF Rhône Alpes, 2010). As we have seen in the results, many of the actors interested in local catering supply are motivated by personal convictions. Likewise in many other fields, the presence of "champions" is a key to convince more producers and more canteens to join the project and motivate more largely stakeholders (Avison, 2010; Kusakabe, 2013). The presence of a "leader", somebody in charge of the project who coordinates the different actions is also important to keep the project alive (Adam et al., 2008; Labriet et al., 2010; Messmer, 2013). This coordinator can be a single person or a small group of stakeholders; he/they can have several roles: facilitator to introduce unpleasant topics and facilitate discussions, mediator to find compromises between the different stakeholders, team leader to maintain the dynamic and keep people motivated, etc.

In conclusion, the following diagram summarises the context of local catering supply and points out the main actions-levers to mobilise in order to overcome the principal difficulties encountered (cf. Figure 28)



Figure 28: Summary diagram of the key action-levers to develop local catering supply

4.3. Local catering supply in an agroecological perspective

Relating to agroecological assessment and sustainable development, local catering supply programmes share many features and benefits with short food supply chains or local food systems. On the whole, many benefits are given to these alternatives to conventional food systems, what Morgan and Morley (2002) call the "multiple dividend". This "multiple dividend" includes health, economical, environmental, social and cultural benefits. Nonetheless, we can also consider some weaknesses of local food systems and various benefits are not always accurate or are difficult to assess.

Economical aspects and benefits

It is no always easy to monitor positive effects on the local economy since they are not necessarily very big and it is difficult to measure if these benefits only come from an increase of local food use or if there is an influence of other factors (Kakriainen, 2005). Nonetheless, it is widely accepted that local supply enables reinforcing and developing the local agricultural sector and more largely the local food processing economy through the role of processors or other intermediaries. This reinforcement leads to maintain or create employment, to secure or raise farmers' income, to increase local added value (Schönhart et al., 2009; Bunod et al., 2011; Lelaure et al., 2011) More generally, local food systems create an overall dynamism of the territory (Langhade, 2010).

Environmental aspects and benefits

Catering ask for a large range of products, consequently we can expect a diversification of local productions (Bunod et al., 2011). This diversification will lead to a more diverse land use contributing to increase biodiversity and to preserve agricultural landscapes (Herault-Fournier, 2010; Langhade, 2010). Local catering supply can also promote sustainable farming practices, which go hand-in-hand with preservation of natural resources, especially if local organic products are chosen in the project. Moreover, even if conventional local products are chosen in the first place, in the long run through the demand of canteens and consumers, producers' practices can evolve toward more sustainable farming (Lelaure et al., 2011). Nevertheless, obviously this scenario is an assumption and there is no guarantee that it will happen like that (Schönhart et al., 2009).

Through food miles decrease, we could expect lower energy consumption and a reduction of greenhouse gases and other air pollutant emissions. However, these benefits are not always obvious and these aspects are quite debated (Mundler and Rumpus, 2012). Logistics is a challenge in food supply chain (Manzini and Accorsi, 2013). Indeed, we should consider the efficiency of the transport used (size of the vehicles, use of the loading capacity, empty returns, etc.) and this efficiency is often higher in mainstream food systems than in local food systems (Schönhart et al., 2009; Langhade, 2010). On the other hand, a study conducted by Mundler and Rumpus (2012) shows that in the case of local food systems, if a specific attention is given to logistics and transport a substantial reduction of energy expenditures (due to distribution) is possible, which brings these cases close to energy expenditures of long chains food systems.

Social and political aspects and benefits

Local catering supply through the adding value of local products enables a promotion of typical products and specialities, which participates to strengthen cultural identity (Schönhart et al., 2009; Lelaure et al., 2011). In addition, local catering supply revitalise producers and caterers job. Through the promotion of their products, farmers have a enhanced job and a higher satisfaction with their work; through the use of quality products, caterers also reassert the worth of their job (Schönhart et al., 2009; Lelaure et al., 2011).

In catering, in spite of the indirect relationship between producers and consumers, local supply can strengthen the link between producers and consumers and reconnect people with their food; provided that there is a suitable promotion of the local products used (communication, presence of the producers, etc.) and if food education measures are taken (Herault-Fournier, 2010; Bunod et al., 2011). Furthermore, a great advantage of local catering supply is to make accessible quality products to a large public and by this means create awareness in part of the population that would have not consume local products by itself (Bunod et al., 2011). Nonetheless, this higher awareness of consumers towards their food and this shorter distance between them and the producers do not necessarily strengthen feedback loops, which could have led to more sustainable behaviours of consumers and producers (Schönhart et al., 2009).

Another aspect of local catering development through participatory approach is a change in food governance (Langhade, 2010). This process leads to increase community power and strengthen community dynamic through the development of collective actions and people gathering around shared stakes (Schönhart et al., 2009; Lelaure et al., 2011). The development of local products offer for catering leads to reinforce the cooperation among farmers through the development of collective organisations to promote their products and make them more accessible to catering (Herault-Fournier, 2010).

4.4. Limits of the study

One of the main constraints of this study was the "pre-made" questionnaires I had to use. I did not have a lot of freedom in regards to the development of these questionnaires, which are the base of the study. Unfortunately, the questionnaires were mainly "project oriented" in order to implement actions afterwards, including mostly multiple-choice questions; they were not designed for scientific purposes or to conduct a rather academic study. Another constraint was the impossibility to organise public meetings, through which I could have assessed the real interest and willingness of the stakeholders concerning local catering supply and through which we could have developed shared objectives and joint actions suitable to the local context.

The questionnaires were somewhat oriented to conduct a quantitative study. Nonetheless, my samples were not built according to the rules of quantitative surveys (issue of representativeness, etc.) since we choose to interview all the people meeting specific criteria. Consequently, the samples and the categories/groups built for the analysis are rather small which makes it difficult to generalise the results and express them as percentages.

A last difficulty was to gather all the information expected. It was not always easy to collect answers and especially precise answers to the questions asked. This situation was particularly true for the canteens on the questions about budget, quantity of food used annually, share of local/organic products, etc. and for producers on the questions about quantity of products produced annually, turn over, etc. It is a shame since the issue of prices seemed to be very important for the caterers but without precise figures it was hard to make an accurate assessment of this issue and I had only estimation to work on. Furthermore, without consumed and produced volumes, it was infeasible to theoretically estimate if local offer and demand can match in terms of quantities.

5. Conclusion

Relating to the current changes in our global food system, many projects of local and/or organic catering supply emerged and are implemented all around Europe. Besides this rising development, these projects are not easy to implement and these initiatives often have to face various obstacles.

Even though caterers and producers are clearly interested in local catering supply, they have to face several constraints related to economical, technical and social issues and challenges. From the demand side, caterers have to prepare many meals with low budgets, they need secure supplies and they have limited storage facilities. Overall, caterers lack of knowledge and experience about local/organic products, consequently they share common beliefs concerning the feasibility of local/organic catering supply. Moreover it is laborious to change habits, it is difficult for the caterers to change practices and difficult for the guests to accept different meals and new flavours. A last constraint from the canteens' side is the lack of power of the caterers: many cooks do not have decision-making power and their job is undervalued, consequently they rarely take initiatives and if they do, their proposals are subjected to the acceptance of canteen managers.

From the supply side, producers and processors often lack of experience to deliver canteens, they have to face logistical challenges to respond to catering demand. In this situation, caterers consider producers as less reliable than conventional suppliers/wholesalers, which do not help producers promote their products in the eyes of caterers. Another weakness of the producers is the lack of collective organisation and their independent mind-set that do not facilitate cooperation among the various sectors to present a clear offer for catering.

On the whole, we can point out the gap between producers and caterers: they work in two different "worlds" and do not know the constraints of each others job. In addition, it is a challenge to match the volumes produced by the producers and the quantities asked by the canteens.

The results from this survey in a rural territory are highly similar to the ones obtain in urban areas (same constraints, same gap, etc.) except that the small canteens from the countryside are better equipped to cook from unprocessed food and their little size is a potential advantage to match with the offer of small local producers. Nonetheless, different actions can be implemented to overcome most of the obstacles mentioned above.

Solutions to facilitate local catering supply concern many different aspects: cooking practices, education, stakeholder roles, etc. A first option is to implement actions to limit additional cost of local/organic products (chose the right products, reduce waste, change cooking practices, etc.). In parallel, it is also important to train caterers and develop awareness among the guests for them to understand the value and the interest of local supply. To make the link between producers and caterers, using existent distributors or wholesalers can be an advantage. Additionally, this intermediary will help to overcome logistical constraints. To gain political support that is essential for the successful implementation of local catering supply, it is valuable to integrate the project in a larger framework of local development or environmental preservation, for instance. A last point is to involve all the stakeholders related to catering and production and create a local dynamic through a collective project. Each actor has a role to play, consequently it is important to have everybody's opinion and to find consensus in order to implement a sustainable project. To conclude, we can highlight that most of these solutions are based on people involvement, people learning, etc. therefore success of local catering supply is mainly based on stakeholders' willingness and motivation to implement the project.

In this thematic of local catering supply, it seems that everybody is waiting for each other, the caterers expect a concrete offer, and the producers wait for a clear demand. Consequently, it could be relevant to study: who should do the first step? Who is more able to do this first step? How to initiate a project of local supply? What is the role of each actor in the project?

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Appendices List

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APPENDIX I: Questionnaires

1) Caterer questionnaire

Questionnaire "local catering supply": caterers

All the information collected during this interview is confidential and remain the property of the GIP ADECO Pays du Bocage and the Orne district Chamber of Agricultural. A summary of the survey will be provided to all the interviewees.

1.	Catering type?
	School catering (nursery/primary school)
	Retirement home
	Classic restaurant
	Central kitchen

General information

2. What is the management type of your canteens?

Direct management Granted management

3. If "direct management":
SIVOS Municipal management Communauté de Commune
The question is relevant only if 2. = "Direct management"
4. If "granted management":
Association Private company
The question is relevant only if 2. = "Granted management"
5. If "granted management", what is the name of the managing organisation?
The question is relevant only if 2. = "Granted management"
6. When do you prepare meals?
Breakfast Lunch Afternoon snack Dinner
You can tick several boxes.
7. How many breakfasts do you prepare every day?
The question is relevant only if 6. = "Breakfast"
8. How many lunches do you prepare every day?
The question is relevant only if 6. = "Lunch"
9. How many snacks do you prepare every day?

The question is relevant only if 6. = "Afternoon snack"

10. How many dinners do you prepare every day?

The question is relevant only if 6. = "Dinner"

11. Total number of meal prepared per day: (*Do not ask this question, to fill out according to the questions 6 to 10*)

12. Do you prepare meals for other establishments? Yes No

13. If yes, how many?

The question is relevant only if 12. = "Yes"

14. Can you give me the list of the number of meals prepared for each establishment delivered?

The question is relevant only if 12. = "Yes" **15. Do you deliver the meals?**

Yes No

The question is relevant only if 12. = "Yes"

16. If not, who do the deliveries?

The question is relevant only if 15. = "No"

17. Which type of transfer do you use? □ Cold □ Hot □ Mixed

The question is relevant only if 12. = "Yes"

18. During which periods do you prepare meals?

□ 7 days a week, 365 days a year

Only during school periods (Monday, Tuesday, Thursday, Friday)

From Monday to Friday (school periods + school holidays)

Other

19. If "Other", please specify:

The question is relevant only if 18. = "Other"

20. How many meals do you prepare per year?

Procurement

21. What is the amount of your annual foodstuff budget? (€ taxes included)

22. What is the VAT rate of your foodstuff purchases?

5,5% 10% 20%

23. Are you subjected to public procurement regulations? Yes No

24. If yes, through which procedure? □ Adapted call for tender procedure (15,000-200,000€)□ Formal call for tender procedure (>200,000€) □ Other The question is relevant only if 23. = "Yes" 25. If "Other", please specify: *The question is relevant only if 24. = "Other"* 26. If "public procurement", how many 'lots' do you have? *The question is relevant only if 23. = "Yes"* 27. If "public procurement", what the average sum of a 'lot'? The question is relevant only if 23. = "Yes" 28. If "public procurement", what the maximum sum of a 'lot'? *The question is relevant only if 23. = "Yes"* 29. If "public procurement", when do renew it? / / *The question is relevant only if 23. = "Yes"* 30. If "over-the-counter market", how do you organise your supplies? Contracts Independent purchases □ Both *The question is relevant only if 23. = "No"* 31. If "both", for what reasons? Depending on the products Depending on the volumes Depending on the prices Other You can tick several boxes. The question is relevant only if 30. = "Both" 32. If "Other", please specify: *The question is relevant only if 31. = "Other"* 33. Are you member of a buying group? □ Yes □ No 34. If yes, can you do purchases aside from this buying group? Yes No

The question is relevant only if 33. = "Yes"

35. Can you give the list of commonly ordered products, their type of supplier, the quantity annually used and their prices? (cf. TABLE 1)
36. Do you get supplies from the small grocery shop of the village? □ Yes □ No

37. How many different suppliers do you have? (*Do not ask this question, to fill out according to the question 35*)

38. Do you consider product seasonality when you do your purchases and menus? ☐ Yes surely ☐ Rather yes ☐ Rather no ☐ Not at all

Local products, organic products and quality products.

39. In your opinion, what is a local product?				
A product from the Orne district	A product from the Orne district A seasonal product			
A product from the Basse-Normandie region	A quality product			
A product coming from an area within a km radius	A "terroir" product			
A product bought directly to the producer	Other			
A fresh unprocessed product				
You can tick several boxes.				
40. If "Other", please specify:				
The question is relevant only if 39. = "Other"				
41. Local product: Product grown, processed and c	onsumed in an area with	in a 80-100 km		
radius from the production place and com	mercialised through a	minimum of		
intermediaries. According to this definition, do you	use local products?			
Yes No				
42. If yes, what is the share of local products in your	r total foodstuff budget?			
□ <5% □ 5-9% □ 10-14% □ 15-24%	25-49% 50-74%	75-100%		
The question is relevant only if $41 = "Yes"$				
43. Are your expectations in regard to local product	ts satisfied by your curren	nt suppliers?		
Yes surely Rather yes Rather no Not a	at all			
44 If not for what reasons?				
++. If not, for what reasons.				
The question is relevant only if $43 = "Rather no" or "Not at all"$				
45. Which products under official quality certificati	ons do you use?			
Label Rouge PDO PGI Certificat de d	conformité 🔲 None			
You can tick several boxes. A6. If "I abal nouge" for which product(s)?				
40. 11 Luber rouge, for which product(s):				

The question is relevant only if 45. = "Label Rouge"

47. If "PDO", for which product(s)?
The question is relevant only if 45. = "PDO" 48. If "PDI", for which product(s)?
The question is relevant only if 45. = "PGI" 49. Si "Certificat de conformité", for which product(s)?
The question is relevant only if 45. = "Certificat de conformité" 50. Do you use organic products? Yes No
51. If yes, for which product(s)?
The question is relevant only if 50. = "Yes" 52. If organic products, what is the share of organic products in your total foodstuff budget? \$\leftersize \$\leftersize <
Orders and deliveries management
57. Who is in charge of the procurement? Caterers Caterers Canteen manager Other You can tick several boxes. 58. If "Other", please specify: The question is relevant only if 57. = "Other"

59. Which type(s) of product do you use for the meat and the fish?					
□ Fresh □ Tinned □ Frozen					
Fresh, vacuum packedCooked, vacuum packed					
You can tick several boxes.					
60. Which type(s) of product do you use for the vegetables?					
☐ Fresh ☐ Tinned ☐ Frozen					
Clean and cut, vacuum packed Cooked vacuum packed					
You can tick several boxes.					
61. How often do you order dairy products?					
Twice a week Once a week Twice a month Once a month Other					
62. If "Other", please specify:					
<i>The question is relevant only if 61. = "Other"</i>					
63. How often do you order meat?					
Twice a week Once a week Twice a month Once a month Other					
64. If "Other", please specify:					
The question is relevant only if $63 = "Other"$					
65. How often do vou order grocery products?					
Once a week Twice a month Once a month Once every other month Other					
66. If "Other", please specify:					
The question is relevant only if 65. = "Other" 67. How often do you order fruit?					
\square Twice a week \square Once a week \square Twice a month \square Once a month \square Other					
68. If "Other", please specify:					
The question is relevant only if 67. = "Other"					
69. How often do you order vegetables?					
Twice a week Once a week Twice a month Once a month Other					
70. If "Other", please specify:					
The question is relevant only if 69. = "Other"					
71. How do you order?					
Telephone Text message Fax E-mail					
Online platform Direct contact Other					
You can tick several boxes					
72. If "Other", please specify:					

The question is relevant only if 71. = "Other"

73. Do you receive deliveries?
Monday Tuesday Wednesday Thursday Friday Saturday Sunday
You can tick several boxes. 74 At what time do you receive deliveries?
\square Before 8:00 \square Btw 8:00 and 12:00 \square Btw 12:00 and 14:00
Btw 14:00 and 17:00 Btw 8:00 and 17:00 Other
You can tick several boxes (maximum 5).
75. If "Other", please specify:
The question is relevant only if 74. = "Other"
76. Who receive the foodstuff delivered?
Caterers Canteen manger Other
You can tick several boxes.
//. If "Other", please specify:
The question is relevant only if 76. = "Other"
774.1
Kitchen and equipment
78. What is the size of the kitchen? (m^2)
79. What is the size of the storage at room temperature? (m ²)
$\frac{1}{2}$
80. what the cold storage capacity? (m)
81. What the negative cold storage capacity? (m ³)
82. What the cool storage capacity (like a cellar)? (m ³)
83. Do you have a dedicated area to receive and unpack the goods?
84. If yes, how hig is this area? (m^2)
The question is relevant only if 83. = "Yes"
S5. Do you have a vegetable processing area? Yes No

86. If yes, how big is this area? (m²)

The question is relevant only if 85. = "Yes" **87. Do you have a meat processing area?** ☐ Yes ☐ No

88. If yes, how big is this area? (m²)

The question is relevant only if 87. = "Yes"

89. Do you have a baking/cooking area? Yes No

90. If yes, how big is this area? (m²)

The question is relevant only if 89. = "Yes"

91. Do you have an area for cold preparations? □ Yes □ No

92. If yes, how big is this area? (m²)

The question is relevant only if 91. = "Yes"

93. Do you have a pastry cooking area? □ Yes □ No

94. If yes, how big is this area? (m²)

The question is relevant on	ly if 93. = "Yes"	
95. What equipmen	t do you have?	
Cold room	Fryer	Kneading machine
Refrigerator	Hot-water bath	Grater
Freezer	Chopping block	Salad spinner
Steam oven	Plate warmer	Potato-peeling machine
Gas oven	Gastronorm tray	Vegetable spray with spinning
Electric oven	Mixer-blender	Refrigerated self-service display
Range cooker	Blender	Heated self-service display
Grill	Cutter-mixer	Other
Blast chiller	Blender	
Heating cabinet	Hand blender	

You can tick several boxes.

96. If "Other", please specify:

The question is relevant only if 95. = "Other"

97. What equipment do you have for serving? □ Dinner plates □ Soup plates □ Ramekins

Other

You can tick several boxes.

98. If "Other", please specify:

The question is relevant only if $97 = "Other$."				
99. Who own the premises and	the equipment?				
The municipality	ality				
The communauté de commune	<i>munauté de commune</i> The equipment is owned by the <i>SIVOS</i>				
The private establishment	Other	-			
	_				
You can tick several boxes (maximum 2).					
100. If "Other", please specify:					
The question is relevant only if 99. = "Other	."				
Meals preparation and ser	ving				
101. How many elements are th	ere in a meal?				
□ 3 (starter, main course, dairy pro	duct or dessert)				
4 (starter, main course, dairy pro	duct/cheese and de	ssert)			
You can tick several boxes.	mtions do you of	For to the grants?			
102. For each dish, now many 0	\mathbf{p} tions do you of 1	Ier to the guests?			
		Note than 5 choices			
103. How is the serving?					
Table service Self-service					
104 How do you prepare the st	arters?				
\square Production \square Assembly					
You can tick several boxes.					
105. How do you serve the start	er?				
Individual portion	lti-portions dish	On-demand service			
You can tick several hoxes					
106. How do you prepare the m	ain course?				
□ Production □ Assembly					
You can tick several boxes.					
107. How do you serve the main	i course?				
Individual portion	lti-portions dish	Un-demand service			
You can tick several boxes.					
108. How do you serve the dair	y products/chees	e?			
Individual portion	lti-portions dish	On-demand service			
You can tick several boxes.					

IX

109. How do you prepare the dessert?
Production Assembly
You can tick several boxes.
110. How do you serve the dessert?
Individual portion I Multi-portions dish I On-demand service
You can tick several boxes
111. What type of water do you serve?
□ Tap water □ Filtered tap water □ Bottled water
You can tick several boxes.
112. What type of bread do you serve?
White bread Wholemeal bread Special bread (e.g. rye-bread)
□ Multi-grains bread □ Other
You can tick several boxes.
113. If "Other", please specify:
The question is relevant only if $112 = "Other"$
114. How do you serve the bread?
\square Individual small breads \square Sliced bread \square Other
You can tick several boxes.
115. If "Other", please specify:
The most in it relevant which it is a start with
116 What type of containers do you use to propare the meals?
\square Washable/reusable containers \square Disposable containers
You can tick several boxes.
117. What type of containers do you use to serve the meals?
U Washable/reusable containers
You can tick several boxes.
118. What type of napkins do you use?
Paper napkins Cloth napkins No napkins
You can tick soveral boxes (maximum 2)
<i>10u cun nek severai doxes (maximum 2).</i>

Staff

119. How many persons work to prepare the meals (cooks and assistant cooks)? 1 2 3 4 5 Btw 6 and 10 Btw 11 and 15 Plus de 15

120. How many cooks are they? 1 2 3 4 5 More than 5

121. How many work for meals serving? 1 1 2 3 4 5 More than 5

122. What are the working periods?

123. Woking time of the cook: (Do not ask this question, to fill out according to the question 122.)

Nutritional plan and budget

124. Who develop the menus?
Caterers Town council Canteen management association Canteen manager
□ Other
You can tick several boxes (maximum 3).
125. If "Other", please specify:
The question is relevant only if 124. = "Other"
126. Are the menus approved by a nutritionist?
Yes No Do not know
127. For now long in advance do you plan the menus? 1 week 2 weeks 1 month 1 month and a half 2 months Other
126. If Other, please specify.
The question is relevant only if 127. = "Other"
129. Do you follow the GEMRCN (Groupe d'Etude des Marchés de Restauration Collective
et Nutrition) recommendations?
Yes No
130. What is the foodstuff cost per portion? (€ taxes included)

131. What is the total cost of a meal (foodstuff, staff, energy, etc.)? (€ taxes included)

132. What is the meal price charged to pupils' parents or residents? (€ taxes included)

Local/organic catering supply project
 133. Are interested in introducing (or using more) local products in your menus? □ Yes surely □ Rather yes □ Rather no □ Not at all
134. Are interested in introducing (or using more) organic products in your menus? Yes surely Rather yes Rather no Not at all
135. If yes, what are your motivations?
The question is relevant only if 133. or 134. = "Yes surely" or "Rather yes" 126. If yos, would you be needy to take part in a "project group"?
Yes No
The question is relevant only if 133. or 134. = "Yes surely" or "Rather yes"
137. If not, what are the constraints/obstacles?
The question is relevant only if 133. or 134. = "Rather no" or "Not at all", or if 136. = "No" 129. Let the area of the colored as the former the group to $(a_1, b_2, b_3, b_4, b_5, b_4, b_5, b_4, b_4, b_4, b_4, b_4, b_4, b_4, b_4$
Yes, high demand I Yes, moderate demand I No demand at all I Do not know
139. Is there a demand of local products from the canteen manager (or the local elected
Yes "mandatory" Yes "if possible" Never
140. If interested in local products, which products would you prefer to start with? Meat Dairy products Bakery Grocery products Fruit Vegetables Other
You can tick several boxes. The question is relevant only if 133. = "Yes surely" or "Rather yes" 141. If "Other", please specify:
The question is relevant only if 140. = "Other"
142. If interested in local products, how often would like to use these products?
The question is relevant only if 133. = "Yes surely" or "Rather yes" 143. Is there a demand of organic products from the guests (or the pupils' parents)? Yes, high demand Yes, moderate demand No demand at all Do not know
144. Is there a demand of organic products from the canteen manager (or the local elected
officials)? Yes "mandatory" Yes "if possible" Never

145. If interested in organic product Meat Dairy products Bakery	ts, which products would year Grocery products Grocery Fr	ou prefer to start with? uit Degetables Dother
You can tick several boxes.		
<u>The question is relevant only if 134. = "Yes surely</u>	" or "Rather yes	
146. If "Other", please specify:		
<i>The question is relevant only if 145. = "Other"</i>		
147. If interested in organic product	ts, how often would like to	use these products?
The question is relevant only if 134. = "Yes surely	" or "Rather yes	
148. If interested in local and/or org portion possible? (€ taxes included)	ganic products, what is the	maximum foodstuff cost per
<i>The question is relevant only if 133. or 134. = "Ye.</i>	s surely" or "Rather yes"	
 149. If interested in local and/or org Through public procurement procedur Independent purchases 	 ganic products, how will you commitments with th Other 	u purchase these products? e producers
You can tick several boxes. The question is relevant only if 133. or 134. = "Ye. 150. If "Other", please specify:	s surely" or "Rather yes"	
······································		
The question is relevant only if 149. = "Other" 151. Would you be ready to use an or local producers/processors could pr □ Yes □ No □ Do not know	online platform dedicated t esent their products?	o local catering supply where
152 If not for what reasons?	s surely or Kather yes	
152. If not, for what reasons.		
The most in the structure of 151 (NL-"		
153 If you choose to use (more) loce	l/organic products what c	hanges will it imply?
Cook more from unprocessed food	\Box Change the portions	\square No change
Reorganise work habits	Reduce waste	☐ Other
□ Need more staff	Better anticipate orders	
Need additional equipment	More financial means	
You can tick several boxes (maximum 9). The question is relevant only if 133. or 134. = "Yes	s surely" or "Rather yes"	
154. If "Other", please specify:		
The question is relevant only if $153 = "Other"$		
155. How many additional staff wou	Ild be necessary?	
The auestion is relevant only if $153 =$ "Need more	e staff"	
156. What new equipment would be	e necessary?	

The question is relevant only if 153. = "Need additional equipment"

157.	Which	type	of he	lp/ad	vice	would	you need?	
D T	1.	1	1 1	1		.1 1 1		

□ Know better the local products available

□ Be introduced to local producers and processors

Create caterers working groups (to exchange about practise and experience)

□ Be helped to create a "project group" to gather stakeholders around the project (local official representatives, guests/pupil's parents, caterers, etc.)

Nothing

Other

You can tick several boxes (maximum 5).

The question is relevant only if 133. or 134. = "Yes surely" or "Rather yes"

150. If Other, please specify:	158.	If "Ot	her",	please	specify:
--------------------------------	------	--------	-------	--------	----------

The question is relevant only if 157. = "Other"	
159. Which type(s) of training would you r	need?
Healthy diet	Introduction of local/organic products
Calculate cost price of a meal	Implementation of the <i>GEMRCN</i> recommendation
Implementation of good hygiene practices	Sustainable catering practices
Implementation of HACCP approach	Nothing
Optimisation of cooking/baking	Other
You can tick several boxes (maximum 9). <u>The question is relevant only if 133. or 134. = "Yes surely"</u> 160. If "Other", please specify:	or "Rather yes"

The question is relevant only if Type de 159. = "Other"

Catering and sustainable development

161. What types of measures did you take against food waste?

Bread served on-demand

Dishes served on-demand

Procedure to better estimate the number of meals to prepare each day

□ Nothing

Other

You can tick several boxes.

162. If "Other", please specify:

The question is relevant only if 161. = "Other"

163. To how much do you estimate the number of meals prepared in excess every week? (in number of meals)

164. To how much do you estimate the quantity of food thrown away every week? (in equivalent of meals)

165. Are the guests aware about food waste? □ Yes □ No □ Do not know

166. Are the guests aware about healthy diet? □ Yes □ No □ Do not know

167. Are the guests aware about the benefits of local/organic products? Yes Do not know

Information concerning the establishment

168. Name of the establishment:

169. Address:

170. Name and function of the interviewee:

171. Name of the canteen manager:

172. Name of the person in charge of the procurement:

173. Telephone of the contact person:

174. E-mail address of the contact person:

Internal information

175. Name of the interviewer:

177. Comments:

TABLE 1:

Question 35. Can you give the list of commonly ordered products, their type of supplier, the quantity annually used and their prices?

____/ ____/ _____

		Type of supplier:	Location of the supplier:	
		1) Farmer	1) <5 km	
Draduat	Quantity annually	2) Artisan	2) 5-9 km	Price (€
TTouuci	used	3) Wholesaler	3) 10-29 km	before tax)
		4) Food processor	4) 30-99 km	
		5) Other	5) >100 km	
Vegetables		1 - 2		
Potato				
Carrot				
Squash				
Leak				
Chou				
Onions				
Lettuce				
Tomatoes				
Fruit				
Apple				
Pear				
Dairy products	•	-		
Eggs				
Crème fraîche				
Milk				
Butter				
Yogurt				
Grocery products	r	T		T
Flour				
Oil				
Vinegar				
Meat	Т		1	T
Beef				
Veal				
Lamb				
Pork				
Poultry				

2) Producer questionnaire

Questionnaire "local catering supply": producers/processors

All the information collected during this interview is confidential and remain the property of the GIP ADECO Pays du Bocage and the Orne district Chamber of Agricultural. A summary of the survey will be provided to all the interviewees.

1. Status of the interviewee: Farmer « Artisan »	Shopkeeper 🔲 Food processor	Association
Production		
2. Main activity of the farm/com	pany:	
Beef production	Vegetables production	Bakery products
Pork production	Fruit production	Butchery activity
Lamb production	Egg production	Pork butcher/salting activity
Poultry production	Cereal production	Vegetable oil processing
Cow milk production	Cheese processing	Flour processing
Goat milk production	Other dairy processing	U Other
You can tick several boxes. 3. If "Other", please specify: The question is relevant only if 2. = "Other" 4. How much milk do you produte \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\leftarrow\$ 100 \$\mathcar{100}\$ \$\mathcar{100}\$ \$\mathcar{100}\$ \$\mathcar{100}\$ \$\mathcar{100}\$ \$\mathcar{100}\$ \$\mathcar{100}\$ \$\mathcar{100}\$ \$\mathcar{100}\$	acce? (x 1000L) <299 300<399 400<499 <999 >1000 lk production" or "Goat milk production ss? processing" or "Other dairy processing" What is the annual production ad what is the shelf life? (cf. TA)	□ 500<599 □ 600<699
 7. What is the sanitary certificat European health approval The question is relevant only if 2. = "Beef pr "Cow milk production" or "Goat milk produ or "Butchery activity" or "Pork butcher/salth 8. Do you need to put in place a Yes No 	Approval derogation INO Sp oduction" or "Pork production" or "Lamb action" or "Egg production" or "Cheese p ing activity" sanitary certification?	pecific sanitary certification production" or "Poultry production" or rocessing" or "Other dairy processing"

The question is relevant only if 7. = "Approval derogation" or "No specific sanitary certification"

9. If yes, which support do you need?
Help to set up a registration form None Other
You can tick several boxes (maximum 2). The question is relevant only if $8 = "Yes"$
10. If "Other", please specify:
The question is relevant only if 9. = "Other" 11. Where do some from the processed new products?
11. Where do come from the processed raw products: \Box From the farm \Box Wholesaler butcher \Box Local farmers
Local "artigane" DWholesaler Ducher
You can tick several boxes.
12. If "Other", please specify:
The question is relevant only if $11 = "Other"$
13. Where do you process your products?
On the farm Through a service provider (slaughterhouse)
You can tick several boxes.
14 Where do you slaughter your animals (name of the slaughterhouse and location)?
The venere do you shughter your animals (name of the shughter house and location).
The question is relevant only if 13. = "Through a service provider (slaughterhouse)"
15. If "service provider", does no have a sanitary certification: \Box Ves \Box No
The question is relevant only if 13. = "Through a service provider (slaughterhouse)"
16. Would you be ready to increase production volumes?
Yes No
17. If yes, to which extent?
$\square <25\%$ $\square 25-49\%$ $\square 50-74\%$ $\square 75-99\%$ $\square 100\%$
The question is relevant only if 16. = "Yes"
18. If yes, what do you need to increase production?
U workforce U Storage facilities
Land and farm equipment Secured market in the long run
Processing premises Nothing
Processing equipment Other
You can tick several boxes (maximum 7).
The question is relevant only if 16. = "Yes"
19. If "Other", please specify:
The question is relevant only if $18_{12} = "Other"$
20. To adapt to client demand, would you be ready to change your equipment (process

20. To adapt to client demand, would you be ready to change your equipment (process, etc.) or your products offer (packaging, basis weight, etc.)?
□ Yes □ No

21. If no, why	you could ne	ot develop yo	our production	on/your equi	pment?	
Unnecessary	development	Too Too	costly investm	nent	🔲 No enough ti	me
Other on-go	ing investment	s 🗋 Othe	er			
You can tick severa The question is rele	l boxes. evant only if 16. =	"No" or 20. = "N	<i>o</i> "			
22. If "Other"	', please spec	cify:				
The question is rele	evant only if 21. =	"Other"				
23. Do you pla	an to develop	new produc	ct(s)/news pr	ocessing?		
Yes N	0					
24. If yes, whi	ch one(s)?					
The question is rele	evant only if 23. =	"Yes"				
25. If "new pr	ocessing", w	hat would yo	ou need to de	velop this ne	w processing p	lant?
Premises and	d equipment	Ti Ti	raining	Financial supp	ort	
Advice to se	t up grant appl	ication D O	ther			
You can tick severa	el boxes.					
26. If "Other"	', please spec	ify:				
The question is rele	p_{ant} only if $25 =$	"Other"				
27. What is th	e total turno	ver of vour f	farm/compai	nv? (x 1000€)		
□ <25	25<49	50<99	1 100<199	200<299	300<399	400<499
500<599	600<699	7 00<799	800<899	900<999	1000<1499	>1500
28. What is t	he turnover	of your far	m/company	concerning y	our processing	g activity? (x
□ <5	5<9	□ 10<24	25<49	50<99	□ 100<199	200<299
3 00<399	4 00<499	5 00<599	600<699	— 700<799	800 <899	900<999
1000 <1499	>1500					
29. In your (products sole a minimum o	turnover co l at maximu f intermedia	ncerning pr m 80-100 km ries)?	ocessing act of your farm	ivity, what n/company a	is the share o and commercia	of local sales lised through
	5<9%	10-24%	25-49% 🔲 5	0-74% 🖸 75	5-99% 🗖 100%	,
		_		—	—	

Quality approach

30. Are the sales through local food systems or short supply chain systems part of the strategic lines of your farm/company? □ Yes □ No

31. Do you follow quality and certification progra	ammes like:
□ Label Rouge □ Certification de Conformité	Produit
□ Organic □ Nothing	
□ PDO □ Other specifications (e.g. no	n-official guidelines)
□ PGI	5 /
-	
You can tick several boxes (maximum 6).	
32. Si "Other specifications", please specify:	
The question is relevant only if 30. = " Other specifications (e.g. non-	-official guidelines)"
33. Would you be ready to follow new specific visibility of your products to the caterers, v government)?	ation (i.e. a certification to give a greater ia a specification developed by a local
Yes No It depends of the specification	l
34. What are the obstacles for developing quality	approach in your farm/company?
Cost of the process Regulatory constraint	s Lack of knowledge
Lack of time Unnecessary until nov	N DNone
Other	
Vou can tick several boxes (maximum 6)	
The question is relevant only if 33. = "No" or "It depends of the spec	ification"
35. If "Other", please specify:	
The question is relevant only if $34 = "Other"$	
Commercialisation	
36. Who is the "sales manager" of your farm/con	npany?
Company/farm leader Non-specialis	ed employee Dedicated employee
□ Wife of the farm leader (<i>conjointe</i> □ Nobody	
collaboratrice)	
37. What distribution markets do you use? Order	r according to the turnover share
1. On-farm/At the processing plant	10. Local supermarkets
2. Market	11. Restaurants, bars, hotels
4 Local grocery shops	13. Works council
5. Local specialised shops (butchery, dairy shop, etc.)	14. Home deliveries
6. Organic shops	15. Online sales
7. Collective point of sale	16. Exhibitions and fairs
 8. Local wholesalers 9. National wholesalers 	1/. Other
	_

38. If "Other", please specify:

The question is relevant only if 37. = "Other"

39. In the last couple of years, what are the tendencies on these distributions markets?

40. Do 3	you already	deliver	catering?	(Do	not	ask	this	question,	to .	fill	out	according	g to	the
question	37)													
□ Yes	🗖 No													

41. Which types of catering do yo	u deliver?	
Nursery school	Prison	
Primary school	Hospital	
High school	Central kitchen	
College	Company cantee	n
University	Catering service	provider (e.g. Sodexho, Scolarest, etc.)
Home for young workers	Other	
Retirement home		
You can tick several boxes.		
The question is relevant only if 37. = "Catering	."	
42. If "Other", please specify:		
The question is relevant only if 41. = "Other"		
43. Through procedure do you de	liver catering?	
Over-the-counter market (<15,000		
Adapted call for tender procedure (15,000-200,000€)	
Formal call for tender procedure (>	200,000€)	
Variation distance in the second		
The question is relevant only if $37. =$ "Catering"	."	
44. Do you have a specific offer for	or catering? If yes,	what does it consist of?
Basis weight Packaging	Prices Deliv	eries 🔲 No specific offer
You can tick soveral boxes (maximum 1)		
The question is relevant only if 37. = "Catering	,"	
45. Which distribution markets w	ould you like to d	evelop in the future?
On-farm/At the processing plant		Restaurants, bars, hotels
Market		Catering
CSA CSA		U Works council
Local grocery shops		Export
Local specialised shops (butchery,	dairy shop, etc.)	Exhibitions and fairs
Collective point of sale		Home deliveries
Local wholesalers		□ None
National wholesalers		□ Other
Local supermarkets		
-		

You can tick several boxes (maximum 15).

46. If "Other", please specify:

The question is relevant only if 45. = "Other"
47. Would you like to use an online sales tool to commercialise your products to individual
customers? \Box No. \Box Do not know
The question is relevant only if 37. # "Online sales"
48. If yes, what are your motivations?
The question is relevant only if 4/. = "Yes" 19 If no what are the obstacles?
47. II no, what are the obstacles.
The question is relevant only if $47 - "Ne"$
The question is relevant only [j 47. – Two
Orders and deliveries
50. How your customers place their order?
□ Telephone □ Text messages □ Fax □ E-mail □ Direct contact □ Other
Vou can tick several house
51. If "Other", please specify:
eren overer , preuse speenje
The question is relevant only if 50. = "Other" 52 Do you require a minimum and an?
\square Yes \square No \square No if on the current delivery circuit
It depends (quantity/location)
You can tick several boxes (maximum 2).
53. If yes, how much is it?
The question is relevant only if 50. = "Yes"
54. Do you do deliveries?
I Yes I No
55. If no, would you like to develop deliveries?
LI Yes LI No
The question is relevant only if $54. = "No"$
56. Do you use a service provider for deliveries?
Yes No
57. What is your delivery schedule? (cf. TABLE 2)
The question is relevant only if $54 - "Vec"$
ine question is relevant only if 54. = res

58. Do you have regular deliveries with a fixed schedule? (Do not ask this question, to fill out according to the question 57)

Yes No	question e ()				
<i>The question is relevan</i> 59. If you develo Monday T Do not know	nt only if 54. = "Yes" op deliveries, wl Cuesday	hat would be the onesday	delivery day (ay 🔲 Friday	(s)? ☐ Saturday ☐Sunday	/
You can tick several be The question is relevan	oxes (maximum 7). $p_{1} = p_{2} = p_{2}$				
60. What would	be the deliverv	time(s)?			
Any time	☐ Morning	Before 10:00	1 0:00-12:	00 🔲 12:00-14:00	
Afternoon	14:00-16:00	16:00-18:00	Do not kn	ow 🖸 Other	
You can tick several be	oxes (maximum 2). $f_{1} = f_{2}$				
61. If "Other".	<u>nlease specify:</u>				
	preuse speenige				
The question is relevant 62. Is it/Would demand? Yes No	nt only if 60. = "Other I it be possible o It depen	e to adapt delive ds 🔲 Do not know	e ry dates a r w	nd times to respond to	o client
The question is relevan	nt only if 54 = "Vas"	$r_{5} = "Vas"$			
63. What is/wou	<u>ni only ij 54. – Tes c</u> ild he the minin	um neriod betwe	en order an	d deliverv?	
□ 24 H □ 48	H 3-4 days	s 🔲 1 week	\square >1 week	Other	
64. If "Other", j	please specify:				
The question is relevan	nt only if 63. = "Other	."			
Logistics and	storage facili	ties			
65. Which stora	ge facilities do v	you have?			
Refrigerator		Cold room (>200	m²)	Cool storage (like cellar)	
Cold room (2-1	10 m ²)	Freezer		Nothing	
Cold room (11-	-50 m ²)	Negative cold room	m 🗌	Other	
Cold room (51-	-200 m ²)	Dry storage	_		
You can tick soveral be	oras (marimum 8)				

You can tick several boxes (maximum 8). 66. If "Other", please specify:

The question is relevant only if 65. = "Other"

67. Are these storage facilities filled at their maximum capacity?

Yes No

68. Which logistical means do you have?	_
Commercial vehicle (<3 m3)	Refrigerated truck (>12m3)
Commercial vehicle (>3 m3)	Private vehicle
Insulated crate	Cool boxes
Refrigerated commercial vehicle (<3 m3)	□ Nothing
Refrigerated commercial vehicle (3-12m3)	Other
You can tick several boxes (maximum 7). The question is relevant only if 54. = "Yes"	
69. If "Other", please specify:	
The question is relevant only if $68. = "Other"$	
1 2 2	
Development of short supply chains an	nd local catering supply
70 Do you know estaring functioning?	
\square Yes surely \square Rather yes \square Rather no	🗖 Not at all
71. In your opinion, what are the advantages	benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets 	/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover 	benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders 	/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price 	benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children 	/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links 	s/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links Deliver large volumes 	/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links Deliver large volumes Convey a positive image 	s/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links Deliver large volumes Convey a positive image Get known 	s/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links Deliver large volumes Convey a positive image Get known Preserve environment 	s/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links Deliver large volumes Convey a positive image Get known Preserve environment Promote quality and fresh products 	s/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links Deliver large volumes Convey a positive image Get known Preserve environment Promote quality and fresh products No advantage 	5/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links Deliver large volumes Convey a positive image Get known Preserve environment Promote quality and fresh products No advantage Other 	s/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links Deliver large volumes Convey a positive image Get known Preserve environment Promote quality and fresh products No advantage Other 	5/benefits of catering supply?
 71. In your opinion, what are the advantages Diversify distribution markets Consolidate turnover Have regular orders Be paid a fair price Educate children Strengthen social and territorial links Deliver large volumes Convey a positive image Get known Preserve environment Promote quality and fresh products No advantage Other 	5/benefits of catering supply?

The question is relevant only if 71. = "Other"

73. In your opinion, what are the constraints of catering supply?
Delivery conditions
Extra workload
Specific packaging and basis weights
Belationship with the caterers
$\square \text{ Carcass balance (for meat producers)}$
$\square \text{ Order management (late or irregular)}$
Payment conditions
A fraid that the local product is not enough promoted in the quest plate
Demanding access procedures (calls for tender, health approval, etc.)
No constraint
You can tick several boxes (maximum 12).
74. If "Other", please specify:
The question is relevant only if $73. = "Other"$
75. If these constraints were overcome, would you be interested in catering supply?
Yes No
The question is relevant only if 37. # "Catering" 76 For catering market your prices are/would be fixed:
\square Yearly \square Seasonally \square Monthly \square Weekly \square Do not know \square Other
You can tick several boxes (maximum 2). The most implement on heif 27 — "Contaning" on if 45 — "Contaning" on if 75 — "Nea"
77. If "Other". please specify:
, in other, please speeny.
The question is relevant only if 76. = "Other"
78. What is/would be the frequency of catering delivery?
Once a day I wice a week I Once a week I Once every second weeks
Once a month D Punctually Do not know D Other
You can tick several boxes (maximum 7).
The question is relevant only if 37. = "Catering" or if 45. = "Catering" or if 75. = "Yes"
79. If "Other", please specify:
The question is relevant only if 78. = "Other"
80. Would you prefer to deliver you products?
Directly to the canteens To a platform/delivery point Be collected
You can tick several horas
The question is relevant only if 37. = "Catering" or if 45. = "Catering" or if 75. = "Yes"
81. If "delivery directly to the canteens", what will be the maximum distance for
delivering? (in km)
uch (ch hill)

The question is relevant only if 80. = "Directly to the canteens"

82. Canteens deliveries:

Only if the canteens are located on the current delivery tour

Possibility to develop a new delivery tour

Other

You can tick several boxes (maximum 2). The question is relevant only if 54. = "Yes"

83. If "Other", please specify:

The question is relevant only if 82 = "Other"

84. If "delivery to a platform/delivery point", what will be its relevant location?

The question is relevant only if 80. = "To a platform/delivery point"
85. What will be your capacity to develop logistics means if in the long run a project of
local catering supply arises?
Purchase of a refrigerated vehicle already planned in the short term
Purchase of a refrigerated vehicle if regular catering supply
Purchase of a commercial vehicle already planned in the short term
Purchase of a commercial vehicle if regular catering supply
Use a service provider for deliveries
Unnecessary investment
□ No possibility to invest
You can tick several boxes (maximum 6). The question is relevant only if $80 = "Directly to the canteens" or "To a platform/delivery point"$
86. Would you be ready to build relationships with other producers/processors of your
sector to respond to catering demand and facilitate catering supply?
Yes No
Yes, only if same quality products Do not know
Yes, if too big orders Other
You can tick several boxes (maximum 4). The question is relevant only if $37 = "Catering"$ or if $45 = "Catering"$ or if $75 = "Yes"$
87. If "Other", please specify:
88 Would you be ready to use an online platform dedicated to local catering supply?
\square Yes \square No \square Do not know
The question is relevant only if 37. = "Catering" or if 45. = "Catering" or if 75. = "Yes"
89. To deliver catering, would like to be help on one or several of these subjects?
Sanitary regulations
Procedures to apply for health approval
Catering supply functioning
Commercial regulations (e.g. call for tender procedures)
Marketing and strategies to promote your products
Quality approach
□ None
Other

The question is relevant only if 89. = "Other"

Communication, promotion and networks			
91. To which network or	association are you a member	·?	
🔲 Bienvenue à la ferme	🔲 Gourmandie	Approximité.fr	
Orne Terroirs	Supermarket associations	None	
GAB	Interbio	Other	
You can tick several boxes (maxim	um 8).		
92. If "Other", please spe	ecify:		
The question is relevant only if 91.	= "Other"		
93. How do you promote	your farm/company and your	· products?	
Label on the products	Farm/company tours	Nothing	
☐ Flyers	Internet (website, mailing list)	• Other	
Posters	Signs on the road		
Local newspapers	By word to mouth		
You can tick several boxes (maxim	um 9).		
94. If "Other", please spe	ecify:		
The question is relevant only if 93.	= "Other"		
95. Do you agree to be m	entioned in a catalogue (pape	r or online) of producers selling their	
products directly to the o	consumers in the Orne district	?	
Yes No			
96. Do you have a mercu	rial (= list of your products an	d their price)?	
Yes No			
07 Would you like to	narticinata ta commorcial/hu	sings avants like a "shawroom" to	
nresent your products to	participate to commercial/bu	siness events like a showroom to	
\square Yes \square No \square Do	not know		
98. Opinion/recommenda	ations for the organisation of t	his event?	
99. Would you like to be	help in regards to public relat	ions?	
Yes No			

100. Do you have additional training needs? If yes, on which topic(s)?

Information concerning the farm/company			
101. Name of the farm/co	mpany:		
102. Address:			
103. How many people we	ork in this farm/company?	•	
 104. Status of the farm/co <i>EARL</i> <i>SCEA</i> <i>Exploitation individuelle</i> <i>GAEC</i> 	mpany Entreprise individuelle EIRL EURL GIE	 SARL SA Other 	
105. If "Other", please sp <i>The question is relevant only if 104.</i>	ecify: = "Other"		
106. Name of the farm/co	mpany leader:		
107. Age of the leader(s): <25 25 25 3 You can tick several boxes.	0<39 🔲 40<49 🔲 50<59	>60	
108. Name of the contact	person in the farm/compa	ny:	
109. Telephone number o	f the contact person:		
110. E-mail address of the	e contact person:		

Internal information

111. Name of the interviewer:

112. Date of the interview:

113. Comments:

TABLE 1:

Question 6. What are the products sold? What is the annual production per products? What is the selling price of the products? And what is the shelf life?

____/ ____/ _____

Product	Annual production	Price (€ before tax)	Shelf life	Availability period (if seasonal product)

TABLE 2:

Question 57. What is your delivery schedule?

	Tour (place + time)	Available room in the truck?
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

APPENDIX II: Detail of the stakeholders encountered

1) Demand side: catering



Figure 29: Map of the canteens encountered according to their size and management type

2) <u>Supply side: producers</u>

	Sector	Status	Number of interviews
Doim	Cow	Farmer	7
Dairy	Milk	Farmer	3
	Beef	Farmer	4
Mont	Pork	Farmer	1
Meat	Poultry	Farmer	1
	Butcher/salting activity	Processor	4
	Vegetables	Farmer	5
Fruit and		Farmer	1
vegetables	Vegetables + fruit	Association of professional rehabilitation	1
Grocery	Flour	Farmer	1
products	Rapeseed oil	Processor	1

Table 4: Distribution of the producers/processors encountered

NB: Two of the farmers met have two main activities (vegetables/beef meat and vegetables/poultry) that is why in the table numbers 29 interviews instead of 27, as it is mentioned in the methodology section.



Figure 30: Map of the producers and processors encountered according to their sector



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