# Prerequisites for the Creation of the "From Farm to School" Model in the Klaipeda Region: the Study of Target Groups' Expectations and Perceptions

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Abstract. The focus of the article is on school meal programs that are common throughout the world and are implemented to promote students' healthy eating habits and bring added value to their learning outcomes. In recent years there has been increasing emphasis on the possibility of improving school meals by including locally grown products, thus contributing to the development of local economic systems. This model has acquired the name "Farm to School" in practice of some countries and, according to its supporters, emphasizes public procurement of locally grown food as a key market opportunity for farmers. The article has been prepared within the BSR Food Coalition project (funded by Interreg Baltic Sea Region Program, contract #S002). The project seeks to create the conditions for the emergence of the "From farm to school" model in the Baltic States. The study presented in the article aims at disclosing the conditions and opportunities for the promotion and use of foods produced by local farmers in general education schools in Klaipeda region, Lithuania as well as at defining necessary educational efforts to increase healthy nutrition, develop general health habits, and agricultural and food system literacy within general education schools and their communities. To achieve the aim the surveys with project target groups (school administration, students and their parents) have been carried out in Klaipeda region. The objectives of the survey were to gather data on target groups' perceptions of local school food procurement and to disclose their opinion, needs and expectations related to model development. The findings of the study would be helpful for designing the further steps of collaboration between schools and local farmers in Klaipeda region.

Keywords: cooperation between farmers and educational institutions, food chains, "From farm to school".

## I. INTRODUCTION

Today's world tendencies such as increasing population, growing consumption, the problems of climate change, anthropogenic pollution of the environment, are becoming more prominent and raise the relevant issues of food quality and sufficiency. The priorities of the world, European, including Lithuania, strategic documents are related to the goals of implementing sustainability and food strategies. In order to ensure the sustainable development of countries, in 2015 The UN has approved 17 Sustainable Development Goals, which cover the areas of improving the social environment, economic development, environmental protection and cooperation [1]. All UN member states are committed to the implementation of these goals. As a result of this, the project "Towards a Sustainable Lithuania: Integration of

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Sustainable Development Goals into State Strategic Documents" [2]. was implemented in Lithuania by the Ministry of Environment of the Republic of Lithuania, where one of the strategic issues addressed was to eliminate hunger, ensure food self-sufficiency and better nutrition, promote sustainable agriculture. Sustainable and resilient food production systems are key to achieving this goal. Transitioning to sustainable agriculture will help ensure food security in the future as demand increases and the climate changes. Policymakers will need to promote sustainable food production systems and ensure the proper functioning of food markets and access to market information. One of the relevant areas for achieving this goal is improvement of school meals systems.

School meal programs are common throughout the world and are used to promote healthy eating in children and improve learning outcomes [3]. In recent years, there has been increasing emphasis on the possibility of improving school meals by including locally grown products, thus contributing to the development of local economic systems [4]. This model has been called "Farm to School" in practice of some countries and, according to its proponents, emphasizes public procurement of locally grown food as a key market opportunity for farmers [5]. Farm-to-school and similar programs are common in developed and developing countries in South America, North America, Asia and Europe [6], e.g. "Farm Safe Schools" (Ireland), "Food for Life" (England), "From Farm to Cafeteria" (Canada), etc. [7].

The National School Lunch Program (NSLP) is the largest in the United States, serving more than 100,000 public and private schools and child care centers. Consistent research is being conducted to uncover various aspects of this program. According to researchers, the program is an important link connecting school canteens and local farmers [8]. Studies show that this program not only contributes to improving the quality of food for students in schools, but also creates added value for the rural economy [9]. By establishing direct links with schools, small and medium-sized farmers can access a stable and reliable market that ensures a fair price for their products [10]. Farm-to-school programs in the United States include a wide variety of activities, such as harvest festivals, field trips, school gardens, and farmer educational visits.

In Europe, the issue of school meals in cooperation with local farms has only recently begun to be addressed. In October 2022, the StratKit+ project, financed by Interreg Baltic Sea Region funds, started. The project aims to create guidelines for the public sector, food providers and other institutions on the integration of sustainable public catering regulation in schools, day care centers, hospitals and public sector institutions. Today, when facing with extremely rapid changes, public sector organizations are in great need of support, guidance and communication with the intended target groups, in order to enable consumers to receive meals that meet their nutritional needs. However, there is also a strong focus on the local network of suppliers and, of course, sustainability in order to achieve an increased amount of sustainable

products supplied by the catering sector [11]. In January 2022, the SchoolFood4Change project funded by the European Union was also launched, which consists of as many as 43 European partners, which include environmental, governmental and non-governmental organizations, scientists, scientific institutes, schools, chefs and food and health professionals. The key aspects and goals of the project are: 1) To make the food served in schools innovative, climate-friendly, healthy, tasty, without waste and most importantly with a local identity; 2) Holistic long-term approach to food provided in schools for a long-term period; 3) Creation of a sustainable catering regulation. This is only part of a long-term strategy enabling the study of universally important aspects on a broad European scale [12].

In Lithuania, it has been declared for several years that children's nutrition needs to be supplied with more fresh products - vegetables, fruits or fish from local growers and producers. Until now, most of educational institutions are fed by a few large companies. This happens due to the fact that municipalities and other organizations purchasing catering services choose suppliers offering according to the lowest prices and large quantities. In order for the product grown or produced on the farmer's farm to reach consumers in the shortest or "straightest" way, and for them to consume fresh, local, organic produce, to raise awareness of sustainable food use and at the same time contribute to the creation of a sustainable economy and environment Ministry of Agriculture of the Republic of Lithuania strives to create all conditions so that only natural, fresh and nutritious food products reach children through institutions providing public services. The Public Procurement Service proposes to divide purchases into smaller values so that local producers and farmers could also participate in the tenders [13]. However, according to municipalities and farmers, the biggest problem today in Lithuania is still rather complicated public procurement procedures. Small farmers who cannot ensure the diversity of the assortment face competition - it is easier for municipalities to choose one large supplier that will deliver all the necessary products [14].

Klaipeda Region has a regional specialisation strategy for 2030 where different measures are dedicated to food topics under the "Bioeconomy" priority [15]. One of them is the promotion of an application of green public procurement criteria on the municipal level, also, district municipalities are working actively on the creation of short food supply chains, organizing catering services in the Klaipeda region in public institutions (schools, hospitals, etc.). Also, on the regional level, the importance of educating society and informing about local food value, is being emphasized. Small farms still predominate in Klaipeda region, but it is becoming more and more difficult for them to operate in market conditions, especially during the coronavirus pandemic. The biggest problem is the lack of the necessary infrastructure in Klaipeda region for the successful cooperation of schools and local farms [16]. Moreover, some other problems have been identified. Neither the heads of educational institutions nor the farmers have the time and ability to devote all their time to the paperwork and documents of public procurement, then to the inspection of goods, logistics, etc. It's just that the system is not developed and does not work smoothly. It is difficult for small farmers to provide purchases and ensure large quantities of products needed [16]. This requires to further improve the cooperation of regional food chains and farmers. Today, there are legal options to buy food products from farmers, but that path is quite complicated, which is why few choose it. Anyway, Klaipeda region sees its task to promote information and education of the population, why local products and locally produced food are more useful, healthier and better for people.

The present article has been prepared within the framework of the BSR Food Coalition project funded by Interreg Baltic Sea Region Program (contract #S002), the aim of which is to create the conditions for the emergence of the "From farm to school" model in the Baltic States. The study presented in the article is a part of a wider research which has been sought to disclose the conditions and opportunities for the promotion and use of foods produced by local farmers in general education schools in Klaipeda region, Lithuania as well as at defining necessary educational efforts to increase healthy nutrition, develop general health habits, and agricultural and food system literacy within general education schools and their communities. To achieve the aim the surveys with project target groups (school administration, students and their parents) have been carried out in Klaipeda region. The present article will highlight the main findings of the survey thus helping to raise the awareness among all interested groups and promote collaboration. In addition, the study is also related to the global and Lithuanian sustainability goals [2] and other goals of sustainability and food strategies.

### II. MATERIALS AND METHODS

The aim of the survey was to gather data on project target groups' perceptions of local school food procurement in Klaipeda region and to collect operational information such as purchasing practices and preferences. The instrument (the questionnaire) for data collection was developed containing the following blocks of questions:

- 1. Questions about the quality of school meals;
- 2. Possible contribution of local farms to the quality of meals:
- 3. Participation and support from parents and students regarding healthier food;
- 4. Possibilities of educational activities in collaboration with farms:
- 5. Contribution to healthy nutrition, health habits, and agricultural and food system literacy.

Data was collected by means of a survey involving project target groups. Three target groups were chosen for the survey: 1. Representatives of schools' administration (who deal with food, catering, procurement etc. issues); 2. Students; 3. Parents.

The survey was organized in schools of Klaipeda region (Klaipeda, Gargždai, Skuodas, Kretinga, Šilutė). 8 general education schools (6 gymnasia and 2 secondary schools) were selected with the aim to reflect the whole district. 3 schools were urban and 5 were from rural areas. All selected schools are rather big – the number of students exceeds 300: 5 schools – 300-500 students; 3 schools – with 500 and more students.

Survey was carried out using Google survey tool. 391 responses were received from students and parents and 12 responses from school administration. When analysing quantitative survey data, statistical analysis methods were applied: descriptive statistics (calculated percentage expression).

The analysis of the qualitative data (open question responses) from the survey was carried out using the content analysis method. The informants' answers were first processed by means of content analysis, when semantically similar phrases and statements are combined into so-called categories. In other words, individual opinions that are separate but similar to each other have been given a generalizing label. This analysis includes several [17]: 1) repeated reading of the text; 2) separation of manifest categories based on meaningful words; 3) interpretation and justification of categories with evidence extracted from the text. After this qualitative research procedure, it became possible to calculate the frequencies of categories that showed the prevalence of individual opinions and their combinations in the studied population, i.e. - made it possible to identify both prevailing and rare, atypical opinions. It should be noted that in the so-called open questions, the specific content of the answers is NOT imposed on the subjects. In principle, the subjects have the opportunity to see, raise and emphasize the most diverse aspects of the question and the problems behind it in their answers. We were guided by the theoretical assumption that the text provided by the informant is the material for content analysis as an educational diagnostic study, reflecting the process of personal reflection as an essential aspect of experiential learning [18].

The analysis of school administrators' responses was done using the interpretative analysis of qualitative data [18]. This kind of analysis was selected because of the number of respondents (12) whose answers were more of a descriptive nature. All the information provided was very valuable for research results.

# III. RESULTS AND DISCUSSION

School administrators

Study participants school administrators responsible for food, catering, procurement etc. issues provided their opinion about legislative acts regulating school meals and suppliers of raw materials. In the words of the informants "it is the owner of the school, i.e. the local government who decides how the organisation of catering in educational institutions will take place. The head of the school will act in accordance with this decision". According to study participants, in general, three main

models of catering in Klaipeda region schools may be distinguished:

1) "Smaller schools, where the institution has its own kitchen and cooks, or the designated employees acquire raw materials from freely selected providers, but mostly all raw materials are purchased through bulk warehouses". Only a few schools that answered the questions have direct links with farms. In the survey four schools' administrators answered that they have not procured. It was pointed, that "in rural schools without procurement, there are several suppliers, as well as producers and farms in addition to the bulk warehouse". At the same time, according to respondents, "small schools far from the city have limited options in the choice of suppliers, especially if there are no producers in the area, then a wholesale warehouse usually supplies".

- 2) "Institutions with the obligation to procure raw materials, where the procurement of raw materials by the institution is organised for their kitchen". Three of the respondent schools have procurement of raw materials. In the survey, it was pointed out that "schools receive goods from local organic producers from a bulk warehouse or a catering company, with whom farms can cooperate in the field of logistics".
- 3) "Larger schools, where the school together with the local government organises a procurement for the provision of catering services; the raw materials are organised by the kitchen service provider". The respondents pointed, that "there is generally no system for sourcing directly from farms". One school replied that "the local government procures their catering services together for several schools".

According to the survey participants, there is no system of food procurement directly from local farmers in Klaipeda region. In the opinion of one of the responding schools, "the catering service provider has direct relations with small producers, and organic products reach the school's kitchen through the service provider. The goods of the local small producer can reach other schools through a wholesaler who has a price list of organic products for this purpose". The responses revealed that currently "the goal in smaller schools is to get as much local raw materials as possible and to restore the network of farms". Larger schools with a procurement obligation cannot include the requirement of local food in the procurement, as this would be against the principles of the EU common market. Organic production requirements can be included in the tender, as this is the EU production quality standard.

According to study participants, as local small producers mostly lack the capacity to provide year-round supplies, six out of twelve responses cited this as "a key issue why schools find it difficult to use their products".

Obstacles to buying products from local producers were pointed out by survey respondents: cost (3 respondents), delivery (2 respondents), storage (2 respondents), school labour concerns (3 respondents), threat to current vendor relations (2 respondents). In addition, it was pointed out that local producers do not

participate in procurements if the school has to use a vendor selected through procurement (4 respondents) and the school itself does not know small producers (2 respondents). The responses also revealed that currently, "local farms have also brought apples for free if it's a good apple year, depending on the situation". According to school administrators, "the price of local products is mostly negotiable, and considering the market price, the price has remained within reasonable limits, so that there is enough money in the budget and schools can afford to buy until the end of the school year".

Three respondents indicated that cooperation with local farmers "contribute to more healthier meals". The effect of cooperation with local farms is highlighted in the responses of school representatives – "smaller ecological footprint, faster delivery, fresher, more reliable raw materials". One respondent thought that "it did not affect the healthiness of the food".

Six respondents thought that "there would be no need for a separate farm under the school". Four respondents felt that "it needed a lot of changes and resources, but could introduce students to where the food on their table comes from and what kind of effort it takes to do so". According to respondents, this would also help to change the consumption habits of young people. Two study participants answered that "this farm would be needed".

Regarding cooperation with organic farms, eight respondents thought that "it could be tried or that they have already cooperated in this way". Four respondents found that "it is not a priority at the moment or maybe in the future". Most of the respondents thought that cooperation with local farmers "is definitely needed, which will contribute to the curricula".

All respondents agreed that "the cooperation with local farms contribute to healthy nutrition, develop general health habits, and agricultural and food system literacy within our school community". In the responses of school administrators, it was pointed out that "cooperation with farms could work in different forms, depending on the farm and time - for a shorter or longer period". In addition to ordering local products for the kitchen, "the children could go to farms to learn how to do different jobs, visit open farm days, the local farmers themselves could come to the school to offer their products".

# Students and parents

To the question "Are you satisfied with the quality of food in your school?" all 100 percent of respondents provided their answers. 37 percent of respondents stated that they are satisfied with the quality of school meals. However, 63 percent were only partly satisfied or dissatisfied. As the question was open-ended, respondents were asked to provide their comments. The comments were analysed applying the method of content analysis. The analysis of answers of the respondents, who were satisfied with the quality of school food, allowed to extract 3 categories as shown in the Table 1.

TABLE 1 REASONS FOR RESPONDENTS' SATISFACTION WITH THE QUALITY OF SCHOOL FOOD (N=34)

Category		Illustrative statement
The relation 56 between the price and the quality	5%	This is a good value for money. The food is good and the prices are satisfactory. The quality of food and the prices for food are acceptable for me.
The assortment of dishes 44	<b>1</b> %	Yes, everything is great. Plenty of dishes.  The child likes the food, always eats in the school canteen in the morning and after school.
Tasty food 28	3%	Yes, very tasty food. The son says that the meal is both tasty and filling.

The analysis of answers showed that those study participants, who were in general satisfied with the quality of school meals, positively assed the relation of price and food quality, the choice of various dishes in schools as well as the good taste of food itself.

The analysis of answers provided by the respondents, who were partly satisfied or dissatisfied with the quality of school food, allowed to extract 5 categories (table 2).

TABLE 2 REASONS FOR RESPONDENTS' DISSATISFACTION WITH THE QUALITY OF SCHOOL FOOD (N=97)

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Category		Illustrative statement
Taste of food	79%	The food is not tasty, a lot of sauces.  My daughter complains that it doesn't taste good, so she doesn't eat it.  The quality is not good, my son complains.  My son has stomach aches after the meals.
Too much sugar containing food	67%	There could be no buns, unnatural juices (packs), just normal food, no chocolates or anything like that.  Sweets are distributed to the children every day. Instead, it is better to give a fruit or vegetable every day.  There should not be a possibility to buy juice and muffins.
Availability of healthy food	61%	The selection of healthy food is small.  There are no truly delicious and healthy choices.  There could be a larger selection of vegetables and fruit.
Limited selection of dishes	54%	Dishes are repetitive, little choice Some days, it seems, there is no choice about what to eat. I would like the menu to be more interesting, maybe even some healthier dishes. There is no choice of fruit at all. Vegetables are barely added. The child complains that there is only mashed potatoes in the canteen (there could be just plain boiled potatoes). No choice for vegetarians.
Matters of meal organization	38%	Long queues in a canteen. Cold food. Too many students need to eat and the break is too short.

Having generalized the respondents' answers it is possible to say that even though some part of survey participants is satisfied with the quality of school food and the main reason for that is the relation between the price and the quality, the majority have some claims to the quality: first, the issue of taste, second – too much added sugar, third – big choice of a junk food instead of healthier one.

To the question "Are there enough vegetables and fruit in the school meals service?" all 100 percent of answers were received. Only about one fourth of respondents (23%) stated that there are enough of vegetables and fruit, at the same time, more than two thirds (60%) of respondents emphasized that the quantity of vegetables and fruit in school menu, in their opinion, is not really sufficient.

All 100 percent of research participants provided their answers to the question "Are you involved in making meal menus?". Regretfully, but the majority of respondents (86%) pointed that they are not able to participate in the creation of menus and they do not have information about how they could join this activity (11%). Some of the respondents (3%) pointed that they sometimes participate in the selection of school meals (but that was the case of the school that orders meals from the external providers).

All respondents participating in the survey provided their answers to the question "Would you like to have more organic products (vegetables, fruit etc.) in your school meals?". Almost four fifths (79%) of the respondents claimed that they would be eager to have more organic products in school menus. The analysis of the comments provided by the respondents allowed to extract the following categories (table 3).

TABLE 3 THE REASONS WHY RESPONDENTS WOULD LIKE TO HAVE MORE ORGANIC PRODUCTS IN SCHOOL MENU (N=56)

Category		Illustrative statement
More organic products from local farmers	69%	I would like more seasonality, local production. We would like to have organic products in menus. I would like my son to eat more vegetables.
Healthier food	52%	Vitamins and useful nutrients. I would like more fruits and vegetables, healthier products. I am all for healthier food, but healthy food must also be tasty food.
Ecological food and packages	49%	Ecology is a very important topic these days and I think it would benefit everyone. I also think that it could be a less polluting packaging option, because everyone takes a plastic bag to put one bun in, but if the bags were minimally taxed - we would reduce pollution. You can also use paper bags as an alternative.
Food for vegetarians and vegans	24%	There are few vegetarian and vegan options, so people on those diets are at a disadvantage compared to other people's food choices

The analysis of the data allows stating that the majority of survey participants would like to have more organic products in school meals. The reason is the following: local foods are considered as healthier and ecological.

To the question "Are you aware of local farmers that could provide your school with organic products?" all 100 percent of answers were received. The majority of the respondents (78%) stated that they are not aware of such products. Anyway, the study participants emphasized that they would be eager to find and establish connections with local farmers, because, in their opinion, "both children's health would benefit, and we would support small farmers".

All the 100 percent of the respondents answered to the question "Would you support the idea of buying food from local farmers even though this could require additional money?". About one third of the respondents (33%) stated that they would be eager to buy form local farmers even though this could require more money. However, another one third of respondents (38%) would only partly agree to buy. The other part of the respondents (29%) would hardly agree to buy if it requires additional expenses. To sum up, the study participants would estimate the costs and the benefits of eating healthier.

All the study participants (100%) provided their answers to the question "Would there be a need to create/have a farm at the disposal of the school, the production of which would supplement the school's meals?". About one third of the respondents (33%) would support the idea of the farm at the disposal of their school. However, other part of the respondents has some doubts about the idea. Two fifths of the respondents (38%) would partly support it. And 29 percent would not agree.

TABLE 4 THE OPINION OF THE RESPONDENTS ON THE IDEA TO HAVE A FARM AT THE DISPOSAL OF THE SCHOOL  $$\rm (N=94)$$ 

Category		Illustrative statement
Not very important for school	71%	Because these are additional worries, who would take care of them.  A nice wish, but first there are no free plots of land. The second fastest growth of vegetables is in the summer, when the school community is on vacation.  Our school doesn't have a lot of funds anyway, so I don't think we can even take on such a thing. This would be a loss-making "business" for the school.
Difficult to adjust to seasons	58%	No. Because there are four seasons in Lithuania, it would be difficult to produce various products in different seasons. That would require a lot of money.

Better to support local farmers  Maybe it would be a really cool idea. but of course labor and financial costs would increase. I think it would be cheaper to buy from farmers. No, because it would require separate working people and it would not be cheaper than buying from the farmers as long as there is someone who takes care of it. It is not enough just to sow. It depends on whether it pays off for the school to invest in agriculture, production and exploitation. If the produce of a local farmer is cheaper, I would choose a contract with farmers. Everyone has to do what they do best. School to teach, farmers to farm.

Respondents were also asked to provide their comments on the question "Would you like to have cooperation with local farmers as a training base for students through direct work skills lessons and/or extracurricular activities?". The analysis of the comments allowed to extract the following categories.

TABLE 5 THE OPINION OF THE RESPONDENTS ON COOPERATION WITH LOCAL FARMERS AS A TRAINING BASE FOR STUDENTS (N=87)

Category		Illustrative statement
Interesting experience for students	65%	It would be a rewarding experience for children. Maybe the problem of food waste would decrease, because they would become familiar with the processes of food production. Also, the knowledge of protecting the planet and ecology would expand.  Yes, educational and extracurricular activities on such farms are very suitable for children. If it was presented in an interesting way, instead of putting just + on, it sounds cool. It is possible to organize educations about ecology.  I think that the school should cooperate with local farmers, because their cooperation would help children to be curious and interested in similar activities and children would want to go on such educational excursions.
Returning to soviet times	59%	It reminds us of the Soviet times, when schoolchildren were taken to Soviet farms, the conditions were really poor in terms of legality and hygiene. I think modern farms should be mechanized, unless it is a cognitive activity. I'm going back to the Soviet era, when it was worth going to the kolkhoz fields to work, I don't think that modern youth would like itbut if it would interest,, maybe it's a good idea to attract children.
School is responsible for education	49%	No need. Students already have huge workloads in their studies, let's leave the farming to the farmers. Our high school students are not kindergartners who need to be told, shown (maybe even taken to "practically" help farmers) about farming. I think these extracurricular activities would be "very unpopular". I do not think that farmers are able to participate in the activities in a qualitative way.

Even though the study participant have positively evaluated the idea of having farms as a training bases for students, they also have mentioned some doubts regarding its economic value as well as its value for educational process.

All the respondents (100%) provided their answers to the question "What do you think - could the cooperation with local farmers contribute to health education and more sustainable consumption?". However only two fifths (42%) of the respondents would support such an idea of cooperation. The majority of the respondents would only partly support (34%) or reject it (24%).

The analysis of the comments of the respondents to the question "Would the cooperation with local farmers contribute to healthy nutrition, develop general health habits, and agricultural and food system literacy?" is provided in the table 6.

TABLE 6 RESPONDENTS' OPINION ON THE COOPERATION WITH FARMERS WITH THE AIM TO CONTRIBUTE TO HEALTHY NUTRITION, DEVELOP GENERAL HEALTH HABITS, AND AGRICULTURAL AND FOOD SYSTEM LITERACY (N=68)

Category		Illustrative statement
Students need more knowledge on ecology and farming	78%	I think so, nowadays, children's knowledge about the concept of agriculture and food system is very narrow.  I don't know if cooperation with farmers would change the students' attitude towards food, but I agree that we should at least try to change it. There is a lack of enlightenment about healthy food, lifestyle, cooking healthy meals, how to replace some products with other - healthier ones.
The role of the school and the family is the most important	68%	Children get all the information from the teachers, so if the farmers cooperated with the school, they would still get the information from the teachers and not from the farmers. I think that with the help of parents and teachers, we can tell what good and healthy food is.
Farmers could contribute to education	54%	I think that the appearance of food on the table is taught by the natural sciences. Also educational tours. If the farmers have something more extensive and interesting to say about healthy eating and health-enhancing habits, I agree.

All respondents were positive towards the possible collaboration with farmers and its contribution to healthy nutrition, health habits, and agricultural and food system literacy. According to respondents, food products would come directly from the farm to the school - and healthier and more sustainable relationships locally, and cheaper, etc.". Through direct participation, students would better understand the benefits of food products, feel the difference between taste, appearance, etc. By participating, they would learn more about agriculture, the advantages of its production, etc., maybe even become interested in agricultural profession

### **CONCLUSIONS**

Within the framework of the project "BSR Food Coalition" (no. #S002, 2021-2024) financed by Interreg Baltic Sea Region program, it has been specifically sought to create conditions for the "From farm to school" model to appear in the Baltic countries, including Lithuania. The study presented in the article aims at disclosing the conditions and opportunities for the promotion and use of foods produced by local farmers in general education schools in Klaipeda region, Lithuania as well as at defining necessary educational efforts to increase healthy nutrition, develop general health habits, and agricultural and food system literacy within general education schools and their communities. To achieve the aim the surveys with project target groups (school administration, students and their parents) have been carried out in Klaipeda region. The objectives of the study were to gather data on target groups' perceptions of local school food procurement and to disclose their opinion, needs and expectations related to model development. The findings of the study would be helpful for designing the further steps of collaboration between schools and local farmers in Klaipeda region.

In recent years, the possibility of improving school meals by including locally grown products has been increasingly emphasized, thus contributing to the development of local economic systems. This model has acquired the name "From farm to school" in the practice of some countries. The "From farm to school" model would enrich the relations of educational institutions with local small farms, which are the main producers of organic and local food in the Klaipeda region. The model emphasizes public procurement of locally grown food as a key market opportunity for farmers. In addition, small and medium-sized farms play an important role in providing food to local communities, and their owners contribute significantly to community vitality by developing ecosystem services, economic health and social wellbeing.

Main findings from the survey including project targets groups (school administrators, students and parents) in Klaipeda region show that there is no coherent system of food procurement directly from local farmers and no effective logistic system. The existing food quality in schools is not satisfactory, but students and their parents are not involved in menu design. Also, they lack in knowledge on local ecological production. School communities would vote for change in school meals including more organic, ecologic, healthy products and provide support for this change. Cooperation with farmers would be a good solution for this change. However, public procurement system is rather complicated and unclear. The lack of knowledge of local farmers in the region for the administration of school food purchase is the key issue. On the other hand, larger schools with a procurement obligation cannot include the requirement of local food in the procurement, as this would be against the principles of the EU common market. Speaking about the cooperation between schools and farmers, the common opinion was that the economic side is important, but the social and community side are also very important when offering local organic products. Moreover, educational activities in collaboration with farmers could add value to developing of healthy nutrition, health habits, and agricultural and food system literacy.

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