

## PROBLEMS OF LOCAL ORGANIC FOOD PROCUREMENT MANAGEMENT AT GENERAL EDUCATION SCHOOLS IN LATVIA

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**Abstract.** Today, more than 70% of people live in and around cities. Existing urban and regional food systems are unsustainable and society expects and demands change. In order to help prevent and reduce food waste, reduce the environmental impact of food production and food waste, and promote access to healthy food for all, it is essential to design and develop smart, food-oriented food chains. Therefore, the involvement of local entrepreneurs, municipalities and citizens in the development of the food security ecosystem of cities and regions is important. Involvement in local food supply chains allows businesses to increase the added value of their products and make farmers less vulnerable to market risks by reducing the number of intermediaries through diversification and better price control, guaranteeing less asymmetric relationships with customers. Municipalities promote the consumption of quality products through green public procurement of food and thus reduce the risk of obesity and chronic diseases, but in the long run the costs of health care. In Latvia, according to the data of 2019, only 3% of biologically certified farms sold their products through public procurement, incl. purchase of school catering. The aim of this study is to identify barriers and possible solutions for increasing the share of local organic food purchased by mainstream schools. The study finds that the role of local organic food in green public procurement and its impact on territorial development is linked to environmental, social and economic benefits. The main obstacles to participating in GPP tenders and winning the tender were: 1) the quantity and range of products required (division of goods into lots), as well as the purchase prices of organic products; 2) high bureaucratic burden for "small" producers, complex Electronic Procurement System and tender submission criteria; 3) local organic food is more expensive than imported; 4) limited financial resources; 5) insufficient amount of food produced. There were significant communication gaps between stakeholders regarding GPP, as well as a lack of knowledge about the organic market and how to implement GPP.

**Keywords:** organic food, green public procurement, general education schools.

**JEL code:** Q01, P36, O13

### Introduction

Global food systems are resource-intensive and account for up to 50% of all anthropogenic sources of environmental pollution (Willett et al., 2019). Food systems are associated with global environmental challenges such as biodiversity loss (Benton et al., 2021; Maxwell et al., 2016), water and ecosystem degradation, water pollution from overuse of fertilizers and pesticides, as well as large GHG emissions (Dalin & Outhwaite, 2019; Poore & Nemecek, 2019). The whole food system contributes to global environmental problems, yet the greatest environmental impacts occur during the primary production of agricultural products (Dalin & Outhwaite, 2019; Garnett, 2014).

On 20 May 2020, based on the European Green Deal, the European Commission adopted a comprehensive new EU Biodiversity Strategy for 2030 and the Farm to Fork (F2F) Strategy. Both strategies aim to create a fair, healthy and environmentally friendly food supply chain by 2050.

The EU Biodiversity Strategy for 2030, including the new Farm to Fork Strategy and the Common Agricultural Policy (CAP), sets specific targets for transforming the EU food system. The strategies aim to reduce the use of pesticides and the associated risks by 50%, the use of fertilizers by at least 20% and the sale of antimicrobials used in livestock farming and aquaculture by 50%. The strategy aims to ensure that the area under organic farming occupies 25% of the total agricultural land area. The increase in the organic farming area is planned to be achieved through sales promotion campaigns and green public

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procurement, thus improving consumer confidence and increasing the demand for organic food (European Commission, 2020a; European Commission, 2020b).

The demand for organic products by public institutions can increase the consumption of organic products as well as reduce the environmental pressure caused by unsustainable consumption patterns. GPP can also help to stimulate some demand for more sustainable foods in the final and intermediate markets, which would otherwise be difficult to find on the market (Testa et. al., 2012). The principles of GPP means making sure that the goods or services procured make the least possible environmental impact and a positive social impact. Green public procurement, as one of the national priorities, is governed by several legal acts. For example, Cabinet Regulation No. 353 (20/06/2017) Requirements for Green Public Procurement and the Procedure for the Application prescribes that the procurement of organically produced products needs to be set as a separate mandatory GPP requirement, stipulating that from 1 January 2022 onwards, at least 50% organically certified milk and kefir and 20% organically certified processed cereal products (in terms of weight or value) must be procured under GPP. Cabinet Regulation No. 172 (13/03/2012) Regulations regarding Nutritional Requirements for Learners of Educational Institutions, Clients of Social Care and Social Rehabilitation Institutions and Patients of Medical Institutions stipulate that for the supply of high-quality products, priority shall be given to food products meeting the quality requirements set by the national food quality scheme or the legal acts governing the organic farming scheme. In Latvia, only 3% organically certified farms sold their products through public procurement, incl. school catering procurement (Benga, 2019).

If a child's nutrition is deficient or inadequate, it makes a negative impact on the child's mental and physical abilities, as well as the ability to learn and master the subject matter. The children who do not get enough nutrition, are unable to concentrate, participate fully in the learning process, are often ill and not physically active. Such children get tired often and quickly, their ability to learn is reduced and they are more susceptible to infections. Therefore, the quality of nutrition at an educational institution is essential and should be given special attention, ensuring that all educatees receive warm, cooked food from natural ingredients at least once a day (Recommendations for the Management of Procurement..., 2017).

The research aims to identify barriers and potential solutions to increasing the proportion of local organic food procured by general education schools in order to identify shortcomings in the management of procurement and develop proposals for increasing the sales of local organic food through GPP. To achieve the aim, two specific research tasks were set: 1) to conduct a review of theoretical literature on the role of local organic food producers in GPP; 2) to analyse the current barriers and potential solutions to increasing the proportion of organic food in GPP.

The research employed a quantitative method to obtain data from representative surveys containing questions developed by the author. To assess the current barriers and potential solutions in several dimensions, the author conducted a survey of four different groups of respondents: organic food producers, procurement specialists from municipalities, procurement organizers from general education schools and parents whose children were in years 1 to 12. The sample of respondents consisted of 80 organic food producers being participants in the food quality scheme, 19 procurement specialists from municipalities (according to the administrative and territorial reform of 2021), 65 procurement organizers from general education schools and 979 parents whose children were in years 1 to 12. The surveys were conducted using the website [visidati.lv](http://visidati.lv) from 3 November to 20 December 2021. The questionnaires were distributed electronically. The survey of parents was posted on the website [eklase.lv](http://eklase.lv). Invitations to participate in the survey were sent individually to organic food producers, representatives of local governments and persons responsible for the control of catering at general education schools. The survey results obtained from the

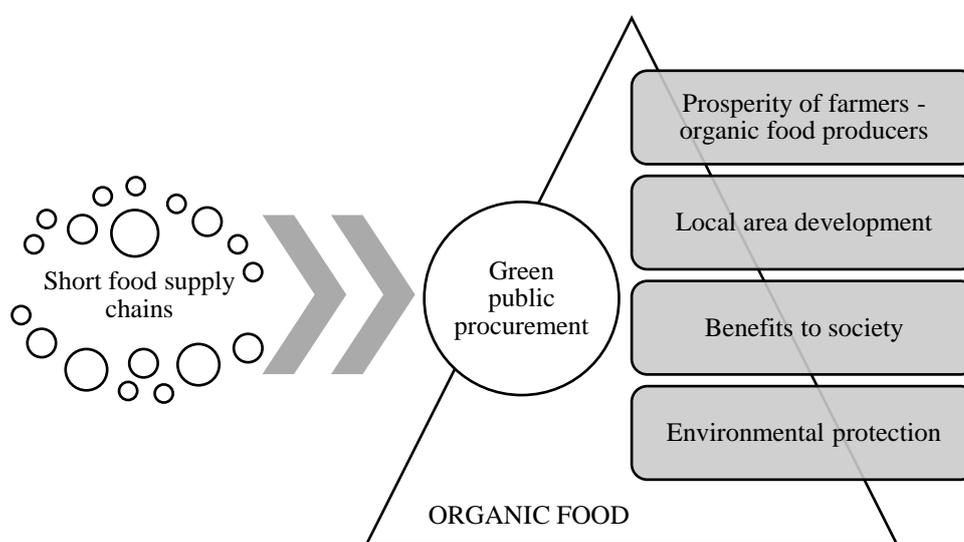
website [visidati.lv](http://visidati.lv) were processed by means of the data processing program SPSS (Statistical Package for the Social Sciences). Microsoft Excel for Windows was used for a graphical analysis of the data.

## Research results and discussion

### 1. Theoretical discussion on the role of local organic food in green public procurement

The enterprises engaged in the organic farming system represent mostly small family farms, which primarily seek to provide their families with healthy and fresh, high-quality food and sell it in the local market. The enterprises are not globally competitive on their own due to their small outputs, and they are important only in the context of regional development.

The role of organic food in green public procurement and the impact on territorial development could be viewed through four dimensions: prosperity of food producers, local area development, benefits to society and environmental protection (Figure 1).



Source: author's construction

Fig. 1. Role of local organic food in green public procurement

Involvement in local food supply chains allows enterprises to increase the value added of their products and make farms less vulnerable to market risks by decreasing the number of intermediaries through diversification and better price control, thereby guaranteeing less asymmetric relationships with customers. (Hardesty and Leff, 2010; Richard et al., 2014; Knickel and Renting, 2000). Municipalities promote the consumption of quality food through green public procurement and thus reduce the risk of obesity and chronic diseases and the cost of health care in the long term (Cecchini et. al., 2010). From the economic perspective at local level, organic farms contribute to employment and, consequently, increase personal income tax (PIT) revenues paid to local governments, as well as to financial security, the development of family farms, the redevelopment of rural areas and local food production (Brown and Miller, 2008). Overall, this contributes to the development of infrastructure in municipalities and the business environment in rural areas.

Public prosperity is strongly linked to social capital, which is developed through the creation of new social networks at the local level, involving both farmers and the local population. Local food supply chains are associated with quality food (fresh, local taste) available at affordable prices to consumers (Flaccavento, 2011).

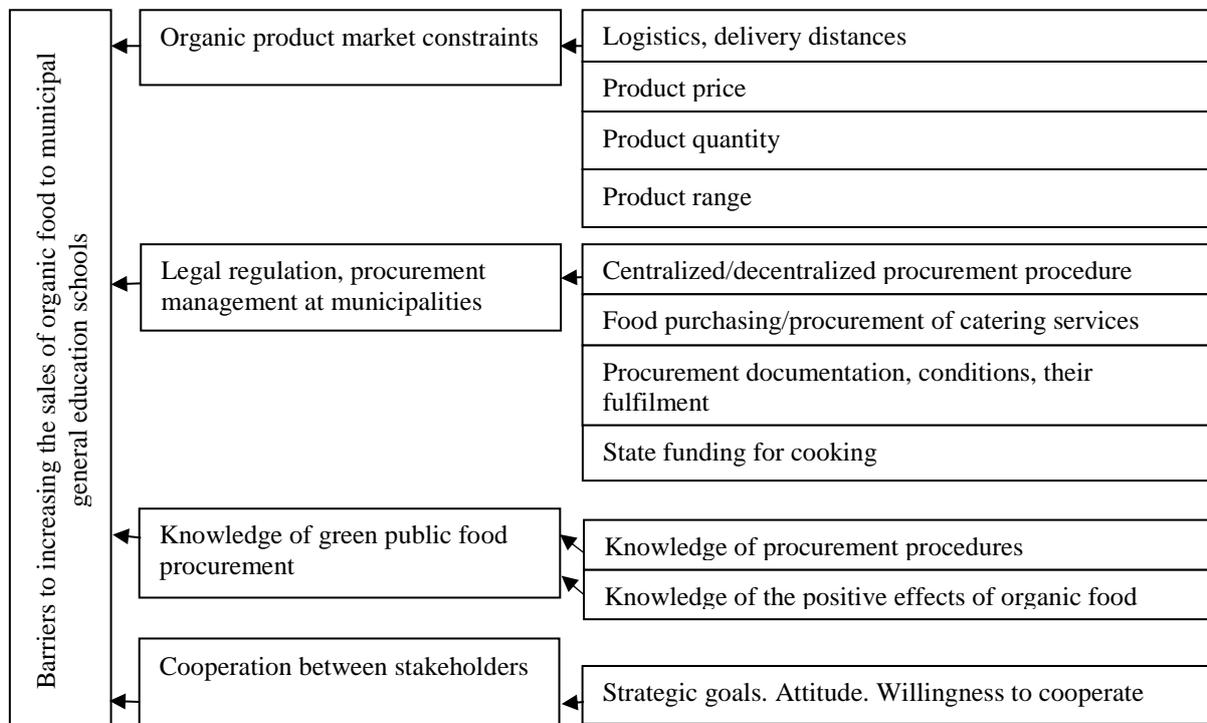
Organic farming is sustainable by nature. It contributes to maintaining water quality, as no pesticide and fertilizer residues enter the water because of economic activity. Organic farms are characterized by

multi-industrial production and as closed a production cycle as possible. This in turn contributes to the conservation and maintenance of biodiversity in rural areas. Developing local food supply chains and increasing food sales through green public procurement would reduce energy consumption and transport distances and contribute to the environment, as well as developing direct sales from farms would reduce packaging and food waste (Berger, B., 2013).

From the social perspective, organic farming contributes to increasing employment opportunities in rural areas and reducing social exclusion, as well as increasing the social prestige of the local community and promoting the development of autonomy and skills Chiffolleau et al., 2013).

## 2. Survey results on existing barriers and possible solutions to increase the share of organic food in green public procurement

The introduction of organic food education into school curricula depends on various constraints on the organic food market, legislative requirements, knowledge and understanding of organic food and green public procurement, and the ability of stakeholders to work together. Barriers to increasing the sales of organic food to municipal general education schools are presented in Figure 2.



Source: author's construction

Fig. 2. Barriers to increasing the sales of organic food to municipal general education schools

Organic food producers consider that there are a number of significant market barriers to participation in GPP tendering. First, it is not possible to submit a competitive price tender, and a wide range of products are needed (19%). Second, the demand for organic food is too high (17%). Third, producers have difficulty in ensuring regular deliveries of products and lack knowledge of procurement procedures (16%).

It is positive that 51.3% of the surveyed farmers were ready to cooperate with each other in order to submit tenders and supply a certain quantity and range of biologically certified products procured by municipalities. One-fifth (20%) of the respondents would be willing to cooperate if the procurement process were coordinated by an independent person, while slightly more than one-fifth (23.8%) of the respondents

were not ready to cooperate because they questioned the honest attitude of other producers towards compliance with the terms and conditions of contracts.

The current procedures for procuring food or catering services by local governments were also a problem, according to the organic food producers. Catering procurement by general education schools was managed by local governments, mostly in a centralized way (57.9%). This means that one procurement contract was made for all municipal institutions or the procurement contract was divided into components, e.g. for a secondary school and two primary schools. Centralized procurement contracts increased the quantity and range of products, as well as complicated the logistics.

Most of the surveyed schools (64.6%) procured food products, while (35.4%) procured catering services. The main arguments why general education schools procured food or catering services are summarized in Table 1.

Table 1

**Breakdown of the answers to a question about the advantages of procurement of food and catering services given by the representatives of general education schools (% of the total answers given)**

Food procurement	%*	Procurement of catering services	%*
opportunity to monitor the quality of food	17.6	good cooperation with and the previous experience of the service provider	34.6
opportunity to reduce the cost of food	17	lower costs	30.8
opportunity to support local food producers	15.7	other (rules set by the municipality)	17.3
better control and supervision of the catering process	15.7	complicated product procurement process	11.5
tastier food	14.4	food producers are little interested in supplying products	3.8
municipalities have enough capacity of personnel	9.8	low capacity of personnel, it is not possible to train the personnel to acquire the required qualifications	1.9
opportunity to support organic food producers	7.2	x	x
other (school delivers a special curriculum)	2.6	x	x

\* **percentage breakdown of the respondents' answers ranked in order of significance**

In the opinion of the respondents, as shown in Table 1, the choice of procuring catering services is based on the principle of successful cooperation and the possibility of reducing prices, yet food procurement provides an opportunity to monitor the quality of products procured, support local food producers and reduce food costs.

In order for local producers to be able to participate in municipal public food procurement tendering, it is important to divide goods into lots, as the expected contract price also depends on it. In accordance with the Public Procurement Law, a "lot" is a part of the range and/or quantity of goods (e.g. juices, canned fruits and berries, frozen foods, meat and meat products) that require meeting specific (similar) storage (e.g. a temperature range) or delivery (e.g. the kind of road transport – trucks with/without freezer compartments) requirements and can be supplied by a certain kind of businesses (e.g. vegetable producers, dairy farmers, meat producers etc.) while ensuring competition between themselves (Public Procurement Law, 2016). According to the research data obtained from procurement documentation, the general education schools that procured food most often divided the range of all necessary foods into no more than 4 lots (43.1%) that corresponded to the categories of food supplied by

a certain group of producers or suppliers (40.9%). This practice actually excluded any possibility for an organic food producer to participate in procurement tendering. The procurement documentation required one winner of the tender in each of the product categories, which prevented an organic food producer from supplying, for example, buckwheat because the producer could not supply also other kinds of food. In this way, educational institutions created a favourable environment for wholesalers rather than local food producers (Aleksejeva & Pelse, 2019).

General education schools most often procured food (36.4%) in accordance with Section 8 of the Public Procurement Law (PPL) (on an open competitive basis) for a contract price of EUR 42000 to 139000. The general education schools rarely (18.2%) indicated that they made the so-called "small procurement" in accordance with Article 9 of the PPL (contract prices ranged from EUR 10000 to 41999). However, it is positive that a relatively large number of general education schools (31.8%) made simplified price inquiries to procure food (contract prices up to EUR 9999). In the opinion of the author, it is this kind of procurement that needs to be introduced for procuring organic food. Simplified price inquiries facilitate the development of short food supply chains, close cooperation and full control over the compliance of goods procured with quality requirements.

Educational institutions are given the freedom to choose to procure food for the duration of the contract. Most often schools conclude contracts for one school year (55.4%), whereas catering contracts are mostly concluded for a period of 5 years. In the opinion of the author, an optimal period of food supply contracts should be 3 years, as it would be possible for an organic food producer to plan the supply and production of food in the foreseeable future. According to the research data, only 9.2% general education schools had made contracts for a period of 3 years.

In Latvia, the legal framework does not stipulate that green public procurement is local procurement of organic food products. However, through setting criteria for the most economically advantageous tender, it is possible to give preference to organic food produced in Latvia. According to the survey data, the lowest price principle is the key criterion for local governments to select the most economically advantageous tender (41.3%). The quantity of food meeting the requirements for organic farming and exceeding the minimum quantity specified in the technical specification (at least 50% organic certified milk and kefir and 20% organic certified cereal products) was indicated as the main criterion by 21.5% municipalities. The key criterion was assigned a 50% weight in the total criteria weight.

According to the representatives of the respective field, kitchen employees (28.5%), a procurement specialist (22%) and a lawyer (11.4%) most often participated in preparing procurement documentation. In most cases, the local government employees assessed the knowledge about the procurement of food and catering services (63.1%) as sufficient. Municipalities offer training on GPP of catering services to procurement specialists (36.8%) every year. The Ministry of Environmental Protection and Regional Development regularly holds seminars on current problems with GPP. The representatives of the relevant field would most often like to undergo practical training on the following:

- 1) development of varied and complete menus (including practical training) (21.7%);
- 2) green public procurement and the criteria therefor (16.9%);
- 3) development of seasonal menus for different age groups (16.3%);
- 4) economic feasibility of a trade-off between quality and price (15.7%);
- 5) application and interpretation of legal acts governing the procurement of food and catering services (15.1%).

The research has found that it is obligatory to involve an economist and a nutritionist in the procurement commission, as evidenced by data pointing to the need to undergo additional training on the problems the representatives of the respective field dealt with.

The problems stressed by the educational institutions regarding their cooperation with organic food producers are presented in Figure 2.

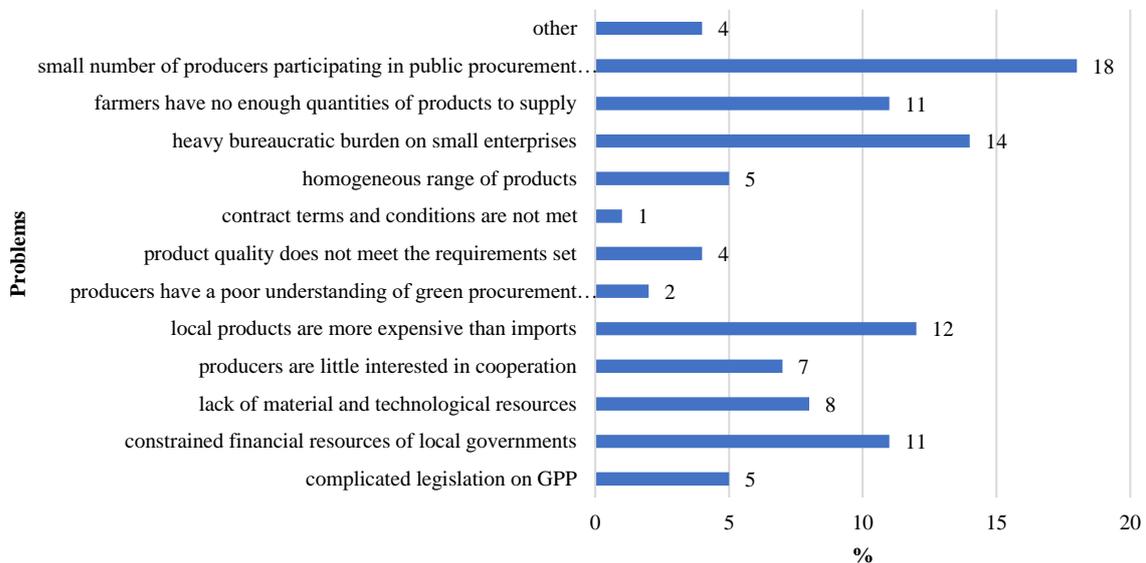


Fig. 2. **Breakdown of the answers to a question about problems with the procurement of organic food given by the representatives of general education schools, % of the total answers given**

As shown in Figure 2, the respondents had no clear consensus on the current problems with the procurement of organic food. The most significant problem, according to 17.5% respondents, was a small number of organic food producers participating in procurement tendering, while for 14.0% it was a high bureaucratic burden for "small" enterprises, the complex Electronic Procurement System and the criteria for submitting a tender; 11.7% indicated that local organic food was more expensive than imported one; therefore, the imports were preferred. Municipalities were forced to procure imported food because they had limited financial resources. It was the available funding that was mentioned as the most important instrument for increasing the sales of local organic food to general education schools (Table 2).

Table 2

**Solutions to increasing the procurement of organic food by the system of general education schools**

Rank	Criterion	Economic instruments	Regulatory instruments	Communication instruments
1	increase in the amount of state budget funding per educatee per day	1		
2	simplification of the procurement procedure, setting a requirement to procure organic food in the amount of "X" % of the total procurement value, depending on the regional supply of organic food		1	
	financial support for organic food producers to participate in GPP tendering	1		
3	intensive informing and education of organic food producers by local governments, the MEPRD, LLKC about the opportunity to participate in procurement tendering, as well as support for preparation of procurement documentation			1
4	establishment of cooperatives (food storage warehouses) for storing and repacking all kinds of organic products	1		
5	establishment of a joint food storage (logistics) centre for the needs of neighbouring municipalities and their institutions for procuring, transporting and repacking food	1		
	amendments to the Public Procurement Law that allow the municipality to conclude contracts of up to EUR 72000 (instead of the current EUR 42000) with local organic food producers/processors		1	
6	development of a local food development strategy by the local government is a mandatory requirement			1
7	creation of a database of potential food suppliers and the cartographic information, i.e. a list of local organic food producers, their constant range of food products and available quantities, as well as storage possibilities for the products			1
<b>Total</b>		4	2	3

**Source: author's own compilation based the survey results**

As shown in Table 2, the potential solutions are ranked according to their significance (rated by the respondents) and classified into 3 groups: economic, regulatory and communication. As a result, it could be concluded that from the perspective of procurement organizers, the most significant improvements could be achieved by means of economic instruments. First, the available funding was mentioned as the most important tool for increasing the sales of local organic food to general education schools. In most municipalities, the funding for catering has not changed since 2014, and it is still EUR 1.42, including VAT, per schoolchild per day. In the opinion of the respondents, the state budget funding per schoolchild per day should be increased from EUR 1.42 to at least EUR 2.00-2.50. According to the survey, 38.1% parents were willing to pay extra for quality meals for their children. However, 46.3% parents were not sure about

the readiness to pay extra, while 15.5% were not ready to pay extra for their children's school meals that contained organic products. It is negative that only 7.8% parents indicated that the municipality or school needed to hold informative campaigns about the inclusion of organic food in school menus. This indicates that overall, the parents had no information about what their children ate at school.

Granting financial support to organic food producers was mentioned as an important factor in increasing the proportion of organic food in the total quantity of food consumed by general education schools (13%), as the most economically advantageous tender was the key criterion in 41.5% cases. The author believes that knowing that organic food is more expensive than conventional one, it is necessary to introduce support mechanisms to compensate for the price gap in order for organic food producers to be willing to participate in GPP tendering. The representatives of general education schools (8.9%) and organic food producers (16%) also emphasized the need to establish cooperatives (food storage warehouses) or joint food storage (logistics) centres for neighbouring municipalities and their institutions for procuring, transporting and repacking food. For this purpose, the draft Strategic Plan of Latvia for the Common Agricultural Policy for 2023-2027 envisages support for short food supply chains, incl. for green public procurement, with a total budget of EUR 14.4 mln., which could make a significant contribution to the development of the infrastructure needed for investment by producers and municipalities and to coordinated activities between local and regional agricultural producers, processors and catering service providers for local action groups (LAGs) (Strategic Plan of Latvia ..., 2021).

Another important way for increasing the sales of local organic food is the enhancement of communication tools. In the opinion of the author, a local food strategy, including particular lines of action regarding the consumption of organic food by the school system, should be designed in each municipality. According to the research data, no such a strategy has been designed in any of the municipalities surveyed. In the opinion of procurement specialists, the creation of a database of potential food suppliers and the cartographic information, i.e. a list of local organic food producers, their constant range of food products and available quantities, as well as storage possibilities for the products is important. This would make it easier and more convenient to identify local producers and their offers. Intensively informing and educating organic food producers about the opportunity to participate in procurement, as well as support for the preparation of procurement documentation is also important. Overall, it could be concluded that any tools of communication between stakeholders can improve the opportunity for organic food producers to participate in GPP.

The third way involves regulatory instruments. Procurement organizers believe that in order to increase the proportion of organic food in GPP, amendments to the Public Procurement Law are needed, which would allow a municipality to conclude contracts of up to EUR 72000 instead of the current EUR 42000. Among the potential solutions, the simplification of the procurement procedure was also important, which involves setting a requirement to procure a certain quantity of organic food as a % of the total procurement value, depending on the regional supply of organic food (13%). Given that the geographical distribution of primary organic food producers is heterogeneous in the regions of Latvia, the author believes that organic food procurement by municipalities should be based on market analysis, making it mandatory to procure a certain quantity and range of organic products, depending on the distribution of farms by economic activity in the region.

### **Conclusions, proposals, recommendations**

- 1) The role of local organic food in green public procurement and its impact on territorial development is associated with environmental, social and economic benefits.

- 2) According to the organic food producers, the main barriers to participating in GPP tendering and winning tenders were the quantity and range of products required (division of goods into lots), as well as the purchase prices of organic products. To remove the mentioned barriers, 57.9% municipalities need to change the procurement approach applied – from centralized to decentralized. This would contribute to cooperation between general education schools and organic food producers, as well as improve control over the catering process and foster the development of short food supply chains.
- 3) The educational institutions together with the local organic food producers emphasized the following main problems: 1) few producers participating in procurement tendering; 2) a high bureaucratic burden for "small" producers, the complex Electronic Procurement System and the criteria for submitting a tender; 3) local organic food is more expensive than imported one; 4) limited financial resources; 5) insufficient quantities of food produced.
- 4) The problems identified by the educational institutions could be addressed through a variety of economic, regulatory and communication instruments. First, municipalities need to educate businesspersons about GPP procedures and cooperation opportunities, as well as the positive social impact. Second, the state budget funding per schoolchild per day should be increased from EUR 1.42 to at least EUR 2.00-2.50. Third, the procurement procedure needs to be simplified, setting a requirement to procure a certain quantity of organic food as a % of the total procurement value, depending on the regional supply of organic food. Fourth, it is necessary to introduce support mechanisms to compensate for the price gap between organic and conventional food in order for organic food producers to be willing to participate in GPP tendering.
- 5) There were significant communication gaps between the stakeholders concerning GPP, as well they lacked knowledge about the market for organic commodities and how to implement GPP. In most cases, the organic food producers were not aware of the opportunity to participate in GPP tendering. The parents did not have information about what their children eat, as only 7.8% of them had received an invitation to participate in an informative event held by the municipality or school on providing quality meals for schoolchildren, incl. increasing the proportion of organic food in the total amount of food consumed by the school system. The educational institutions were most often not informed about the procurement of catering services by the municipality. To solve the problems, the municipality needs to work on improving communication instruments.

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