

## **The role of producer organizations in development of the Latvian fruit and vegetables sector and the EU**

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**Abstract.** Cooperation works as a tool for stable and sustainable economic development, facilitating human well-being and development of economy. It reflects cohesion of the sector and interest in facilitation of the common development of the sector. At the EU level, an increasing attention is paid to cooperation and its role in promotion of competitiveness of the fruit and vegetables sector. The aim of the research is to evaluate the contribution of producer organizations to the development of the fruit and vegetable sector and achievement of the objectives of the EU's Common Agricultural Policy. Based on the national and international planning documents, available statistical data and the results of conducted questionnaires, a general overview of the activities of fruit and vegetable producer organizations in Latvia and their achieved results in reaching the objectives of the EU's common organization of the market in agricultural products was provided. Several proposals were developed to strengthen the activities of fruit and vegetable producer organizations, to facilitate the competitiveness of the sector, as well as to implement the Common Agricultural Policy of the EU. The results obtained during the research can help the institutions involved in the establishment and implementation of the Common Agricultural Policy of the EU to better develop and improve the policy in the sector.

**Key words:** cooperation, fruit and vegetables sector, EU Common Agricultural Policy, Latvia, producer organizations.

### **INTRODUCTION**

Cooperation from Latin ‘cooperatio’ means joint action or collaboration, the main aim of which is the benefit each of the members gains from participation in cooperation, using the services provided by the cooperation and the opportunities gained by joint efforts (Kucinskis, 2004). Cooperatives are defined as autonomous associations where persons unite voluntarily to meet their common economic, social and cultural needs and aspirations through a democratically governed, jointly-owned company (International Co-operative Alliance, 1995). Cooperation aspires to improve the social, economic and environmental conditions of society (Rothschild, 2009), often focusing on those society members who are in a disadvantaged situation (Baltaca, 2003; Bird, 2015).

As a result of cooperation, productivity, quality and income increase, new jobs are created, it saves time and energy, facilitates education and inculcates the sense of community and drive for the general good (Potter, 1904; Balodis, 1927). Cooperation works as a tool for stable and sustainable economic development, matching services to needs, increasing the value of economic activity in the social aspect, promoting a fairer distribution of income and riches, eliminating discrepancies in the labour market and deepening and consolidating economic democracy (CIRIEC, 2007). Cooperation promotes human well-being and economic development, citizen participation and development of entrepreneurship (Baltaca, 2003). A company operating in isolation cannot achieve high competitiveness - it requires cooperation with surrounding companies, state institutions and other organizations (Kassalis, 2010). Cooperation reflects the sector's cohesion and interest in promoting the overall development and growth of the sector.

The potential for cooperation is still not fully exploited and the role and place of cooperative societies should be enhanced at both national and European level (Kaktins et al., 2005). Today, cooperation is receiving increasing attention at EU level. In the Latvian fruit and vegetables sector, entrepreneurs cooperate and unite in producer organizations (hereinafter - PO). Fruit and vegetable POs are legal entities established to plan production, facilitate concentration of their products supply, improve trade of these products and promote good cultivation and waste management practices (European Parliament and Council, 2013). POs are the main participants on which the competitiveness of the Latvian fruit and vegetable sector, the achievement of the objectives of the EU's Common Agricultural Policy (hereinafter - CAP) and the proper management of the common market organization depend. It is important to strengthen the responsibility of fruit and vegetable POs and provide the necessary financial support to enable them to undertake more important tasks of the day-to-day management and development of the sector under the EU's CAP.

The aim of the research - to evaluate the contribution of producer organizations in the development of the fruit and vegetables sector and achievement of the objectives of the EU's CAP. To reach the aim, the following work tasks were put forward: 1) to provide a general insight into the fruit and vegetable POs in Latvia; 2) to study the role of POs in the Latvian fruit and vegetables sector and the EU; 3) to evaluate the results of the operation of fruit and vegetables POs; 4) to provide justified conclusions and proposals.

The novelty of the research - comprehensive assessment of the activities of fruit and vegetable POs in Latvia and their contribution to the development of the sector and achievement of the objectives of the EU's common organization of the market in agricultural products. The results of the research can help the institutions involved in the establishment and implementation of the EU's CAP to better develop and improve the policy in the sector.

In the development of the research the qualitative and quantitative research methods were used, including the general scientific research methods, mathematical methods and sociological research methods. Processing and analysis of the research results was carried out using Microsoft Excel, Microsoft PowerPoint and IrfanView program.

## MATERIALS AND METHODS

During the development of the research, several national and international planning documents were analysed. To perform the analysis, the data provided by the Ministry of Agriculture on the operational programmes carried out by the fruit and vegetable POs in 2012–2018 were used. To assess achievement of the objectives, the output and impact indicators specified in the European Commission Implementing Regulation No. 2017/892 were used. To obtain additional opinion, the author developed two questionnaires aimed at finding out the opinion of 5 POs and 56 of their members on the development of fruit and vegetables sector in Latvia. The survey of fruit and vegetable POs was conducted from 8 to 23 October 2020 and of PO members - from 8 October to 8 November 2020. 5 fruit and vegetable POs and 55% of PO members provided answers. The questionnaire was elaborated using the tools for making questionnaires available at [www.google.com](http://www.google.com).

## RESULTS AND DISCUSSION

### General Description of Fruit and Vegetable POs

In Latvia, the formation of fruit and vegetable POs began in 2012. Before obtaining the status of a PO, they operated as fruit and vegetable producer groups. Currently, there are 5 recognized fruit and vegetable POs in Latvia: Cooperative Society (CS) ‘Mūsmāju dārzeni’, CS ‘Baltijas dārzeni’, CS of Agricultural Services ‘Baltijas ogu kompānija’, CS of Agricultural Services ‘Zelta ābele’ and CS of Agricultural Services ‘Augļu nams’. Two of them are vegetable POs and three – fruit and berry POs. In 2018, the fruit and vegetable POs united 52 professional fruit, berry and vegetable growers. The main reasons for establishment of POs and participation in them for the members was the opportunity to use common production resources in order to be able to sell their products more successfully, to optimize production costs, as well as to acquire new markets and channels (European Parliament and Council, 2013).

The vegetable POs specialize mainly in cultivation of cabbage and cucumbers (48% of the total value of sold products), while fruit and berry POs mainly specialize in cultivation of cranberries, blueberries and apples (these products constitute 74% of the total value of sold products). In 2018, 576 ha were used for growing fruit, and 1,059 ha - for growing vegetables. The total volume of fresh and processed products sold by PO members in 2018 constituted 27.02 thousand tonnes, 97% of which were produced by the PO members themselves and the rest - by other producers sold through the POs. The total value of fresh and processed products sold in 2018 constituted 20.26 million EUR (Agriculture Ministry, 2020). The products of the fruit and vegetable PO are sold in various chain stores, wholesale and retail, as well as sold to processing companies and processed by themselves. The main destinations for sales are chain stores and supermarkets (in 2018, they were 75% of the total value of sold products) (Agriculture Ministry, 2020).

### The Role of POs in the Fruit and Vegetables Sector of Latvia and EU

The general activity of POs is determined and regulated by the legislation of the EU and Latvia. The strategic directions chosen in the Latvian strategies 2011–2017 and 2017–2023 for the operational programmes of the fruit and vegetable POs are

determined taking into account the objectives of the common organization of the market in agricultural products and the existing situation in the fruit and vegetables sector in Latvia.

Latvian strategies for 2011–2017 and 2017–2023 define several directions of development, and they are:

1) to develop production planning in accordance with the market demand both in terms of quantity and quality, promoting provision or increase of product quality in accordance with consumer desires;

2) to increase the commercial value of products and improve trade by concentrating supply, optimizing production costs, including promoting research, experimental production and mutual cooperation;

3) to facilitate training and best practice exchange activities for POs and their members, as well as to develop crisis prevention and management measures, resulting in optimization of production costs and stabilization of producer prices;

4) to implement environmental measures.

The directions set out in the strategies are broadly defined and they overlap. Moreover, the strategies do not specify measures of the operational programmes and do not set out the indicators and their values to be achieved, according to which the degree of achievement of the strategic directions could be assessed. From the aspect of planning and evaluation, directions of the strategy have to be much more specific, at the same time avoiding to name very similar or contradictory objectives. The strategy should set out tools and actions for implementation of the strategic directions, including the relevant indicators for assessment of specific directions and values to be achieved in the relevant planning period.

The strategies cover a period of 7 years and are implemented through operational programmes developed by the POs and approved by the Rural Support Service for 3 or 5 years (Table 1). The different duration of planning documents complicates the assessment process and does not enable to make clear judgments about the achieved results. In the future, it would be desirable to draw up planning documents for a period covering the period of implementation of strategies and operational programmes.

**Table 1.** Duration of Operational Programmes and Strategies for Latvian Fruit and Vegetable POs

PO type	PO name	PO year of establishment	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Vegetable PO	Mūsmāju dārzeni	2012		1.OP			2.OP			3.OP					
	Baltijas dārzeni	2013			1.OP					2.OP					
Fruit PO	Baltijas ogu kompānija	2015					1.OP			2.OP					
	Zelta ābele	2017								1.OP					
	Augļu nams	2017								1.OP					
										Strategy 2011–2017			Strategy 2017–2023		

Note: OP – Operational program. Source: created by the author according to Agriculture Ministry, 2011; 2017; 2020.

The strategies stipulate that the measures and actions included in the operational programme must have collective nature, benefiting the PO and all its members. If an operational programme of the PO provides for investments in a separate holding of the PO members, they must be justified indicating how the chosen investment will contribute to the achievement of the overall objectives of the operational programme of the PO.

According to the strategies, POs will be able to improve the overall situation of the Latvian fruit and vegetables sector through operational programmes, eliminating the negative impact of the weaknesses and threats identified within the SWOT analysis of the strategies on the development of the sector and promote the sector's competitiveness (Table 2).

There are several factors hindering development of the fruit and vegetable sector in Latvia - fragmented farm structure and insufficient financial resources, lack of marketing measures and innovations leading to low end product value and decrease in income, as well as lack of professional education and insufficient cooperation in science, resulting in lack of qualified specialists and research in the sector, etc.

It should be noted that the list of weaknesses of the SWOT analysis of the strategies includes problems that correspond to threats instead of weaknesses in the SWOT analysis (for example, insufficient coverage of Internet and mobile network in the country, etc.). Lack of understanding in the field of development of SWOT analysis can lead to defining incorrectly chosen needs, thus failing to promote development of the fruit and vegetables sector in Latvia. Within the planning process, the SWOT analysis of the sector should be further specified. The table shows the number of fruit and vegetable POs that participated in the operational programme measures in 2012–2018 and the relevant issue in the sector.

In accordance with the EU legislation, operational programmes for fruit and vegetable POs must implement at least two of the objectives referred to in the point (c) of Article 152 (1) or paragraphs (1) and (3) of the Article 33 of Regulation No. 1308/2013 (European Parliament and Council, 2013). In turn, the Latvian legislation (Regulation of the Cabinet of Ministers No. 621) does not stipulate which measures are subject to implementation of the objectives referred to in the Regulation. To facilitate guidance for achieving the objectives, the national legislation (Regulation of the Cabinet of Ministers No. 621) should be specified in line with the EU Regulation. In order to promote competitiveness of the Latvian fruit and vegetables sector and to reduce the weaknesses identified in the SWOT analysis of the strategy, it is also possible to set mandatory measures/actions to be implemented by the PO within the framework of the operational programmes. The proposals should be implemented without breach of the requirements set out in Regulation 1308/2013. Planning documents of the EU also stipulate that POs have to include two or more environmental actions in their operational programmes, or that at least 10% of the operational programme expenditure must be applied to environmental actions (European Parliament and Council, 2013). The other activities are freely chosen by the POs according to the needs of the members.

Although the maximum amount of eligible costs for each measure is set in accordance with the international regulatory framework, the idea of increasing the maximum eligible costs for activities related to research and experimental production, training and exchange of best practices, crisis prevention and management, environmental protection and PO administration should be encouraged at EU level. The actions of the measures promote emergence of innovations, transfer and implementation of knowledge in production, reduce business risks, as well as ensure environmental sustainability, mitigate climate change and ensure successful operation of POs. An increase in the maximum eligible costs may enhance the interest of POs in the relevant measures of the operational programme, which are important for the development of the sector.

**Table 2.** PO Operational Programme Measures to Promote the Competitiveness and Development of the Latvian Fruit and Vegetables Sector

Operational program measure	Maximum amount of eligible costs (%)		Measures implemented by Fruit and Vegetable PO							The problem to be solved in the Fruit and Vegetable Sector ( <i>SWOT weaknesses</i> )
	Current	Preferred	2012	2013	2014	2015	2016	2017	2018	
Planning of production	70	70	1-V	2-V	2-V	2-V 1-F	2-V 1-F	2-V 3-F	2-V 3-F	1. Fragmented farm structure. 2. Low value of the final product. Reduction in income. 3. Increase in production costs.
Improving or maintaining product quality	70	70	1-V	2-V	2-V	2-V 1-F	2-V 1-F	2-V 3-F	2-V 3-F	4. Reduction of areas under cover. 5. Insufficiently efficient operation of cooperatives. 6. Insufficient availability of finance. 7. Lack of means for protection of registered plants.
Improving marketing	70	70	1-V	2-V	2-V	2-V 1-F	1-V 1-F	2-V 2-F	1-V 1-F	8. Lack of professional education in the field of horticulture. Lack of research. Lack of qualified researchers in vegetable-growing and mechanization.
Research and experimental production	30	>30								9. Lack of specialists in plant protection and agrochemistry. Lack of scientists working with modern biotechnological methods in selection, plant genome research, work with pathogens, etc.
Training actions and exchange of best practices	30	>30	1-V	2-V	1-V	1-V	1-V	1-V		10. Insufficient professional knowledge of company managers and employees (lack of innovation).
Crisis prevention and management measures	30	>30								11. Lack of marketing. 12. Uneven consumption of the local products due to seasonality of production.
Environmental actions	30	>30		2-V	2-V	1-V	2-V	2-V 2-F	1-V 1-F	13. Inefficient management of resources and production residues. 14. Exposure of perennial plantations to agro-climatic risks.
Administration costs	2	>2		2-V	2-V	2-V	2-V 1-F	2-V 3-F	1-V 3-F	15. Insufficient coverage of Internet and mobile network in the country, causing difficulties to introduce precision technologies.

Note: V – number of vegetable POs, F – number of fruit POs.

Source: created by the author according to Ministers Cabinet, 2017; Agriculture Ministry, 2011; 2017; 2020).

Through operational programmes, it is planned to promote not only the development of POs and improvement of the competitiveness of the Latvian fruit and vegetables sector, but also the provision of proper management of the common

organization of agricultural markets (Table 3). The support for measures under operational programmes may contribute to the achievement of the overall and specific objectives of the common organization of the market.

**Table 3.** Compliance of Measures of Operational Programme of Latvian Fruit and Vegetable POs with Objectives of the EU Common Organization of Market in Agricultural Products

Common organisation of the markets in agricultural products objectives		Operational program measure								
Overall objectives	Specific objectives	Planning of production	Improving or maintaining product quality	Improving marketing	Research and experimental production	Training actions and exchange of best practices	Crisis prevention and management measures	Environmental actions	Administration costs	
Improving competitiveness	Promoting concentration of supply Promoting the placing on the market of products produced by the members	X	X	X	X	X	X			X
Improving attractiveness of PO membership	Ensuring that production is adjusted to demand in terms of quality and quantity Boosting products' commercial value Promoting knowledge and improving human potential	X	X	X	X	X	X			X
Maintaining and protecting the environment	Contributing to soil protection Contributing to maintaining and improving water quality Contributing to sustainable use of water resources Contributing to habitat and biodiversity protection and landscape conservation Contributing to climate change mitigation Reducing the volume of waste generated									X

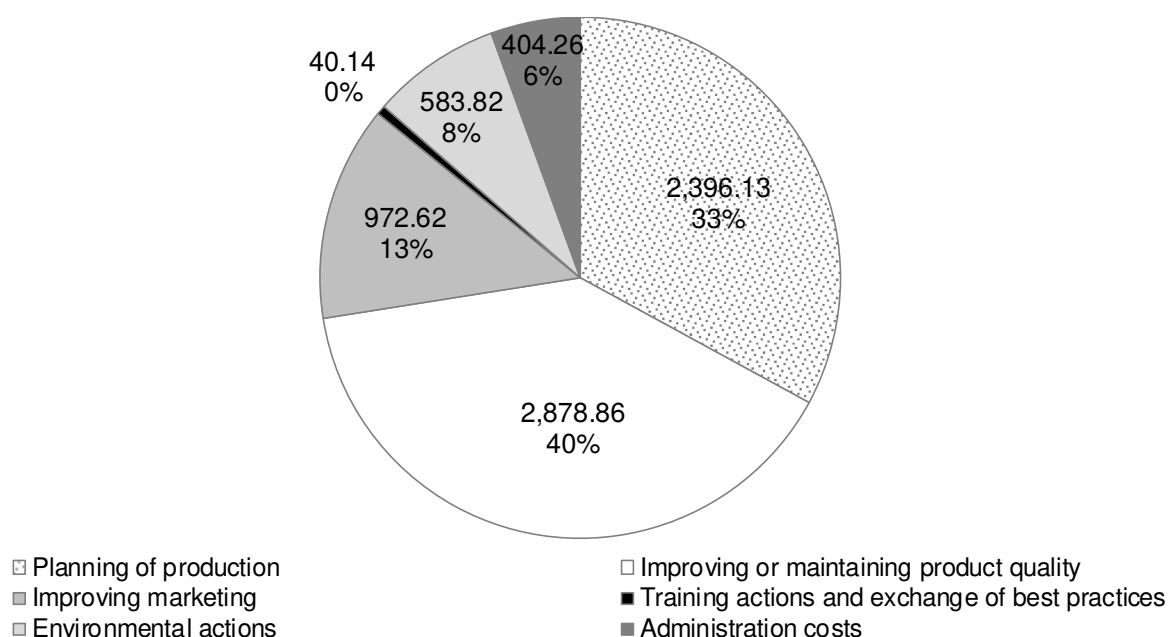
Source: created by the author according to European Commission, 2017.

The strategies also refer to the need in achieving the objectives of the common market organization. Only the overall and specific objectives of the common market organization included in the strategies do not all comply with Regulation 2017/892, therefore the objectives of the common market organization indicated in the strategy should be clarified in accordance with the international regulation.

Not only in Latvia, but also in the EU, POs play an important role in the development of the fruit and vegetables sector and in successful achievement of the objectives of the common organization of the market in agricultural products. Sound and long-term rational planning documents can contribute to achievement of common objectives both locally and internationally.

## Results of Activity of Fruit and Vegetable POs

In operational programmes from 2012 to 2018, fruit and vegetable POs in total implemented 6 of 8 available measures with the total costs of 7.28 million EUR (Fig. 1). POs focused more on improving and maintaining the quality of member products (40% of costs) and production planning (33% of costs). Less attention was paid to measures related to facilitation of trade, commercial value and sales of the products, training and best practices, as well as environmental protection and preservation, etc. In none of the reporting years did the POs chose to implement measures related to research and experimental production, as well as crisis prevention and management, which the POs themselves explain as a result of insufficient human resources (80% of respondents) and lack of economic justification (20% of respondents) for the choice of the respective measures (Biuksane, 2020).



**Figure 1.** Cost Structure of Measures of the Operational Programmes of Fruit and Vegetable POs in 2012–2018 (thousand EUR, %).

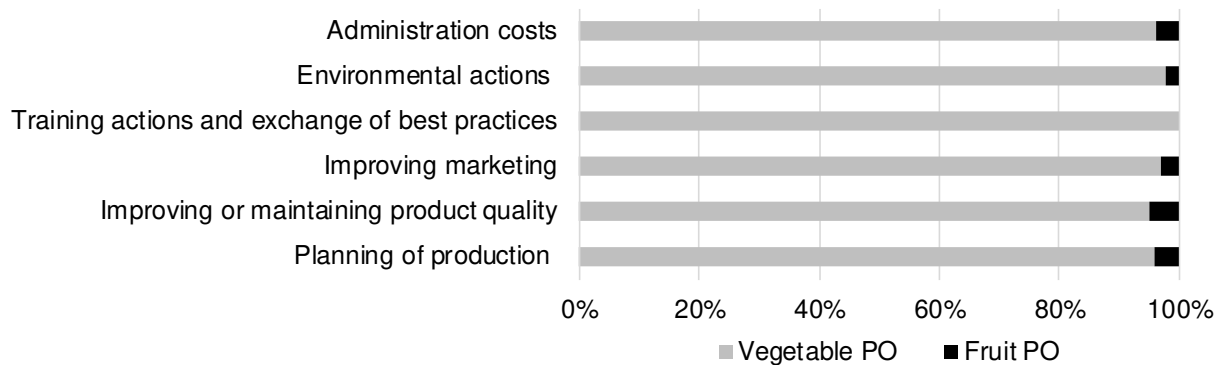
Source: created by the author according to Agriculture Ministry, 2020.

In the framework of the measures mostly various fixed assets were purchased (on average 72% of the total support), thus enabling the PO members to renew and modernize their existing material and technical base and infrastructure. Most of the support (96%) was received by vegetable POs, in addition, in all measures, but much less support (4%) was received by fruit POs (Fig. 2), which could be explained by different times of obtaining the PO status and procedure for calculating the available support.

Pursuant to the international regulation, the available support to the fruit and vegetable POs is calculated at 4.1% of the value of production sold by the PO (European Parliament and Council, 2013). Under such condition it is much more difficult for the small POs than for the big POs to obtain the required support and develop. In order to create a more equal opportunities for development, the support available to the small and



newly created fruit and vegetable POs should be increased setting more favourable conditions for calculating the amount of support.



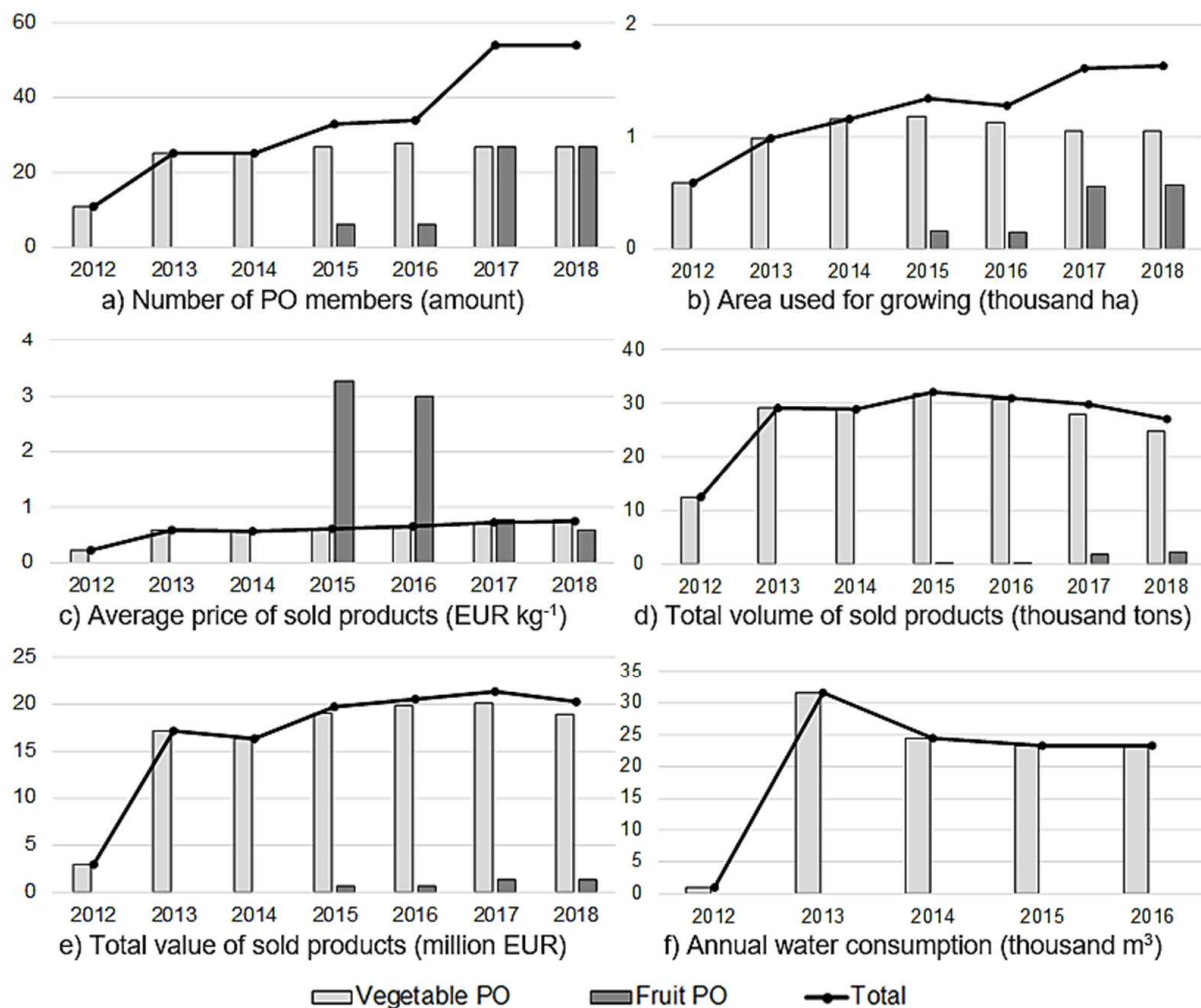
**Figure 2.** Cost Structure of Measures of the Operational Programmes of Fruit and Vegetable POs in 2012–2018 (thousand EUR, %).

Source: created by the author according to Agriculture Ministry, 2020.

Results of economic activity of fruit and vegetable POs and their members in 2012–2018 (Fig. 3), and thus the achievement of the objectives of the EU’s common organization of the market in agricultural products, were largely influenced by the investments made by POs in material and technical base and infrastructure, changes in sales markets and unfavourable weather conditions.

The fruit and vegetable POs directed 6.69 million EUR for improvement of competitiveness and increase in attractiveness of the status of a PO member. The support was mainly directed to the purchase and modernization of material and technical base and infrastructure of POs with the aim to facilitate increase in knowledge and human potential, placing the production on the market and concentration of supply, ensure that the products meet demand in terms of quality and quantity, and increase the commercial value of products. As a result of the support, the fruit and vegetable POs managed to improve their attractiveness and attract new members - since 2012, the number of members in the PO has increased 5 times along with the total area available for production (Fig. 3, a, b). The activities performed by the POs also contributed to the improvement of members’ knowledge and skills - as a result of the provided support of 40.14 thousand EUR, in 2013, 20 employees completed training related to information important for economic activity, and from 2014–2017, - mainly 1–3 vegetable RO employees each year. In turn, 10–13 farms used consultation measures in 2013–2017, which accounted for an average of 2% of the number of vegetable PO members in the relevant period. Fruit POs did not apply for support to improve the knowledge and skills of their members, which is likely related to the recent acquisition of PO status. Although investments in means of production and infrastructure increased production costs of the entrepreneurs, PO members managed to stabilize producer prices in the markets (Fig. 3, c) and increase the commercial value of their products (Fig. 3, e), despite the weather conditions in recent years that prevented POs from significant increase in production volumes (Fig. 3, d), including the volume of the sold products that meet the requirements of the special ‘quality scheme’. Support for the activities of the fruit and vegetable PO operational programmes has contributed to the achievement of the objectives set by the

EU's common organization of the market in agricultural products - improvement of the competitiveness and attractiveness of the status of PO members.



**Figure 3.** Results of Fruit and Vegetable PO Performance in 2012–2018 (amount, ha, EUR kg<sup>-1</sup>, tons, EUR, m<sup>3</sup>).

Source: created by the author according to Agriculture Ministry, 2020.

The fruit and vegetable POs directed 583.82 thousand EUR for conservation and protection of the environment through the operational programme measure ‘Environmental Protection Measures’. As a result of the support, POs purchased pollinating insects, various equipment and devices to improve the technological process aimed at ensuring organic production and diversity, as well as to improve the use of water resources. The support resulted in promotion of biodiversity and more sustainable use of water resources on the farms of the PO members (Fig. 3, f). The POs did not apply for the support aimed at protecting the soil, maintaining and improving water quality, mitigating climate change and reducing the generated waste. The support of the operational programme measure of the fruit and vegetable PO has contributed to the achievement of the objectives set by the EU’s common organization of the market in agricultural products - environmental preservation and protection, but not in all aspects related to the environment.

The measures chosen by the fruit and vegetable POs in the operational programmes are similar from year to year, suggesting the existing continuing problems and needs. The support provided through the measures does not sufficiently contribute to the reduction of all the weaknesses identified in the SWOT analysis of the Latvian fruit and vegetables sector - increase in production costs, lack of marketing, lack of professional training in the field of horticulture, lack of specialists in plant protection and agrochemistry, insufficient professional knowledge of company managers and employees, inefficient resources and production residue management, etc. The activities carried out by the POs were useful and appropriate to the needs and opportunities of the PO members.

Support for the activities of PO operational programmes has contributed to the improvement of the operation of PO members and better achievement of the objectives of the EU's common organization of the market in agricultural products. On the other hand, the impact of the support on the development of the Latvian fruit and vegetables sector is not so unambiguous - the support has not sufficiently contributed to the reduction of the weaknesses indicated in the SWOT analysis of the sector.

## **CONCLUSIONS**

In Latvia, there are 5 recognized fruit and vegetable POs, 2 of which are vegetable POs and 3 are fruit and berry POs. The key reasons for establishment of POs and participation in them for the members was the opportunity to use common production resources in order to be able to sell their products more successfully, to optimize production costs, as well as to acquire new markets and channels. POs operate in line with the EU's CAP. POs are the main participants the competitiveness of the Latvian fruit and vegetables sector, the achievement of the objectives of the CAP and the proper management of the common market organization depend on. The operational programmes of POs can also be a mean contributing to the development of Latvian fruit and vegetables sector.

In order to improve the economic activities of the members, the fruit and vegetable POs invested 7.28 million EUR through operational programmes. Investments were made to improve the quality of products of the PO members, production planning, enhance trade, commercial value and sales of products, to ensure training and best practices, as well as to introduce environmental measures. The support for the activities of the operational programmes implemented by POs has contributed to the improvement of the operation of PO members and better achievement of the objectives of the EU's common organization of the market in agricultural products, but insufficiently the development of Latvian fruit and vegetables sector.

To strengthen the operation of the fruit and vegetable POs, to facilitate the competitiveness of the sector, as well as to implement the CAP, the planning documents governing the activities of fruit and vegetable POs should be improved and formation of a common understanding of the role of POs and their meaning in the context of development of the sector is desired. At the national level, the existing Regulation of the Cabinet of Ministers should be improved and clarified, indicating by which measures of operational programmes of PO the objectives of the EU common organization of the

market in agricultural products should be achieved, thus facilitating better orientation in achievement of objectives. The national strategy should set out the tools and actions for implementation of defined directions, at the same time specifying the particular directions and providing for the appropriate indicators and achievable values for their evaluation in a certain planning period. The SWOT analysis of the Latvian fruit and vegetables sector should also be improved in order to identify the needs and opportunities of the sector as precisely as possible, at the same time providing for development of the sector through the operational programmes of PO. To promote the development of the sector, mandatory measures and actions to be implemented in the framework of the operational programmes of PO could be determined, too. It is not less important to develop planning documents in compliance with the period covering the implementation period of the strategy and the operational programmes of PO. In turn, at the EU level, the idea of increasing the maximum eligible costs for measures of the operational programmes of PO related to research, experimental production, training, crisis prevention and management, environmental protection and PO administration should be encouraged, thus stimulating increased interest of POs in integration of knowledge and innovation in the development of the sector and contributing to better achievement of the objectives of the EU common organization of the market in agricultural products. In addition, more favourable conditions for calculation of the support should also be determined for small and newly created fruit and vegetable POs in order to ensure more equal opportunities for development. Improving the planning documents of the Latvian fruit and vegetables sector and conditions for calculating the support determined by the EU may strengthen the operation of POs, promote competitiveness of the sector and promote better achievement of the objectives of the EU's CAP.

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