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### SMALL FARMS MANAGED BY YOUNG FARMERS

UNDER NEW "FARM-TO-FORK" STRATEGY

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Edited by

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- a lack of financial assets and unwillingness to engage their own resources,
- the risk of loss,
- inability to cope with formal and legal barriers,
- insufficient knowledge to manage the group effectively,
- inability to standardise the production,
- problems with finance and cash flows,
- · a lack of long-term planning,
- a lack of loyalty among members of agricultural producer groups,
- incomplete engagement of farmers in the activity of the group,
- farmers' lack of discipline,
- a lack of effective communication.

Accordingly cooperatives and other forms of agricultural cooperation can be considered as productive institutional tools to improve farmers' income and to assists the development of rural areas, resulting in diminishing poverty (Bernard and Spielman, 2009; Markelova et al., 2009; Bernard and Taffesse, 2012; Fisher and Qaim, 2012; Nepal, 2014).

## 6.2. Development of agricultural producer groups and the role of CAP support

Pavel Kotyza, Dávid Červený, Karolina Pawlak, Wawrzyniec Czubak, Sándor Nagy, Krisztián Kis, Vilma Atkočiūnienė, Jurgita Zaleckienė, Ilona Kiausienė

An important feature that distinguishes agriculture from other branches of the economy is the so-called 'attachment to the land'. The lack of mobility determines the search for other organisational solutions to make the agricultural enterprise more economically efficient. In general, the analysis of the situation of small farms run by young farmers, presented in chapter 2, allows us to distinguish the main characteristics of those farms:

- a disadvantageous situation in terms of the small scale of resources held, reflected in a relatively small average cultivated area or average herd size, at considerable agrarian fragmentation,
- a disproportionately small value of production,
- limited intensity of use of production factors, small scale and efficiency of production
- limited access to external sources of finance.
- difficult access to up-to-date market information.

A fragmented agrarian structure, resulting in a relatively small scale of production, is reflected in an even smaller value of production. Additionally, rapid changes in the economy after the political and economic transformation after 1989, reinforced in the process of integration with the EU, have had a negative impact on small-acreage farms in particular, causing a decrease in their market power in the sector itself. Vertical or horizontal integration is often a good solution to break down barriers arising from the disadvantaged market position of small entities.

Vertical integration consists in linking the economic actors operating at different stages of production, from the means necessary to start the process, through procurement of raw materials, their processing, producing final products and their distribution. By far the strongest links are observed between agriculture and food processing. The process of integration that takes place between agriculture and the agri-food industry stimulates transformations in the agricultural market by reducing variations in supply (quantity and quality) and price fluctuations (Chorób, 2017, p. 34). The most common method of integration is contract-based integration. In agribusiness, contractual agreements are the primary means for many agri-food industries to purchase raw materials from agricultural producers. Usually, the initiative to create strong integration links comes from buyers of agricultural raw materials, i.e. agri-food processing plants; however, by negotiating in advance the farmer can stabilise the product price. The popularity of contracting is also due to the imperfect market for raw materials and food products. In addition to the production risk, the number of contracting agreements is also dependent on the growth of capital productivity, competition, price fluctuations and labour force (Chorób, 2017, p. 51). The purpose of contracting and its benefits for

both parties to the contract is to secure the right lot, quality and delivery date of the raw material for the processing plant, while producers are assured of deliveries within a strictly defined time limit. In turn, benefits of contracting for farmers include stabilisation of prices for the products sold and a guarantee of a higher price in times of economic downturn, greater reliability and planned rhythm of produce collection, lower stock levels, reduced transaction costs, access to advisory services and technological support, thus increasing product quality and more reliable development. Farmers are able to reduce unit production costs, increase investment levels and scale up their production.

Apart from the farm level, the effects of integration should also be assessed in the sectoral scale. The benefits of vertical integration may determine the improvement of competitiveness for food industries. While vertical integration does not completely eliminate the negative effects of supply fluctuations caused by natural factors, it reduces spontaneous volatility of economic conditions causing supply fluctuations. It has implications not only for producers, but also for consumers. The ability of interconnected actors to make joint investments makes farmers more willing to invest, mainly in the lines of production covered by integration. As a result, the financial sector related to agriculture is developing, in such areas as banking, investment advice, insurance, etc.

Małysz (1996) divided benefits of contract integration from the integrator's point of view into monetary and non-monetary benefits. Monetary benefits are defined as the difference between incremental sales revenue associated with integration and direct costs of integration. Non-monetary benefits include:

- rationalisation of the integrator's raw material supply,
- · increased farmers' qualifications,
- specialisation of production,
- improved quality of the raw material produced and the resulting potential for producing quality branded food products,
- rationalisation of the transport of raw materials,
- rationalisation of the use of production resources,
- rationalisation of sales of finished products,
- improvement of the competitive position on the market.

Integration processes also bring about changes in the agricultural environment and in rural areas. The awareness of integration participants is growing, as it requires them to become involved, to keep learning and to change their way of thinking. The increase in investment and willingness of farmers to use services also contributes to changes in the local community, where services for agriculture and its environment can develop more dynamically. The increase in farm size also often requires external labour. This reduces rural unemployment levels and stimulates entrepreneurship in rural areas.

The agricultural policy has also taken specific measures to encourage farmers to co-operate in the horizontal integration process. The spread of horizontal cooperation between farmers is undoubtedly influenced by increasing market pressures, the outlined processes of agrarian and production concentration, the European integration and globalisation of markets. Due to the low competitiveness of farms and their place in the food chain, actors are joining to form a larger, more efficient and more competitive economic entity. In this way farmers are able to obtain higher prices for their products sold or to reduce costs of inputs needed for agricultural production.

Producer groups are the basic form of horizontal integration in agriculture. According to Chałupka (1998), a producer group is an association established on a voluntary and grassroots basis for the purpose of conducting joint activities, most often the sale of production. This is a group of persons, organisational units without legal personality and legal entities which, as part of their agricultural activity, run an agricultural holding. The process itself should be understood as the coming together of economic entities belonging to the same production or distribution phase.

In the European Communities producer groups were first established in Italy, Belgium and France, subsequently this type of organisation, encouraged by subsidies, has spread in the other Member States as well (Rácz, 2017; after Dorgai et al., 2005; Barta and Sarai, 2005).

A producer organisation in any agricultural sector must meet the following requirements in order to be recognised:

- established at the initiative of producers;
- be built up and controlled by producers of a particular agricultural sector:
- be based in an EU member state;

- carry out at least one of the activities listed by EU law, such as joint processing, distribution, transportation, or packaging;
- adhere to at least one of the specific goals mentioned in agricultural legislation, e.g. optimising production costs, etc.

In addition, producer organisations must fulfil other requirements including meeting a minimum membership requirement and/or covering a minimum volume or value of goods (European Commission, 2019a, 2019b).

According to the EU's top-down style intervention logic, financial and non-financial support promote the development of potential benefits, building improved skill sets and generating more added value for producer organisations (producer groups). The list below summarises these potential benefits (European Commission, 2019a, 2019b, 2022; Rácz, 2017; Szabó and Baranyai, eds. 2017):

- they can reduce their transaction costs,
- easier fundraising, the ability to make larger investments in order to raise productivity,
- strengthening the collective bargaining power of farmers,
- ability to develop more intensive and direct business relationships with processors and traders,
- concentrating supply, in the joint procurement of input materials,
- strengthening their market positions, higher purchase prices obtained with larger product volumes,
- improved marketing, the possibility of brand building,
- producer organisations can provide technical and logistical assistance to their members,
- the development of technological innovations that can be directly applied in the production process, including ICT solutions that support the efficient flow of information,
- introduction and further development of quality management,
- creating and transferring knowledge and innovation,
- risk management at organisational and operational levels,
- organisational culture can develop, trust grows, and social capital can be strengthened,

- the emergence of identity and the growth of awareness,
- synergistic effects can also be generated that go beyond the agricultural sector. In many cases their operation also brings relevant benefits to the non-integrated farms and organisations in their environment,
- they can promote structural transformation of the rural economy and can foster sustainable growth,
- they can also increase their own and the region's competitiveness.

Below we make an attempt to shed more light at the state of horizontal integration in agriculture in the countries covered by the VISYFARM project. We used the literature on the subject and secondary data from the ministries of agriculture and paying agencies in individual countries in order to describe the number and structure of agricultural producer groups, as well as the amount of financial support granted to them. The substantive and time range of the analyses presented was dependent on the availability of data in countries under investigation.

#### Czech Republic

The Czech Republic started supporting marketing organisations in 1999 when the Ministry of Agriculture of the Czech Republic offered the first financial support scheme. Before the country's accession to the EU, aid was mainly granted at the national level without the EU contribution; after the Czech Republic joined the EU, the potential for assistance with the EU contribution came into force. The following are the aids for the creation of new marketing organisations that responded to the lack of vertical and horizontal integration within the agricultural sector:

- Agricultural and Forestry Support and Guarantee Fund (PGRLF) Marketing Organisation Programme (1999-2007);
- Support Programme No. 10 Support for establishing and operating producer marketing organisations (1999-2003);
- Establishment of Producer Groups (measure offered in 2004-2006 under the Rural Development Programme);
- Producer Groups (measure under RDP 2007-2013, call pending);
- Producer Groups and Producer Organisations in the Fruit and Vegetable Sector (Common Market Organisation).

The first three aids (i.e. Marketing Organisations, Support Programme No. 10 and Establishment of Producer Groups) were offered, and some actual results could be observed. The fourth support measure, Producer Groups (PGs), was ultimately not announced because of other national priorities. The fifth support scheme offered under the CMO aims to support more advanced forms of cooperation, the so-called Producer Organisations (POs).

Support under the PGRLF was provided to marketing organisations. The general aim of the programme was to support the creation, establishment and development of marketing organisations. Under the scheme it was possible to obtain aid for investments, for the purchase of tangible and intangible assets (i.e. machinery, equipment, technology, construction investments) acquired for joint processing and marketing of agricultural production. The aid included a bank loan guarantee (0-60 %) and subsidies covering part of the loans' interest. Until 2007, the support provided by the PGRLF funds was not significantly used by marketing organisations. During the period of support (i.e. since 1999), only six projects were supported by 35.4 million CZK (PGRLF, 2015).

Compared to the PGRLF programme, Support Programme No. 10 (SP No. 10) has been used more frequently. The purpose of this programme was to support the activities of marketing organisations and entities bringing together marketing organisations of producers focused on marketing selected unprocessed agricultural commodities with the aim of joint marketing, the concentration of supply and the creation of effective marketing structures. Thirty-four organisations were supported under this programme, and the Ministry paid a total of CZK 112 million (EUR 3.45 million) in the form of subsidies.

After the country's accession to the EU in 2004 the Rural Development Programme and the measure Establishment of Producer Groups also started to apply in the Czech Republic. This measure, like the previous programmes, aimed to create conditions for establishing groups of primary agricultural producers to increase their competitiveness on the EU common market. These organisations could be set up for a wide range of crops. The aid was paid in

the form of a direct, non-repayable subsidy within five calendar years of the measure's inclusion date. The amount of the subsidy was calculated based on the annual value of production of the commodity marketed. Unless otherwise specified, organisations with a turnover of up to EUR 1 million could apply for between 5% and 2% of the total turnover of goods marketed, which meant an aid amount of up to EUR 190 000/ for the first five years. Organisations above EUR 1 million had a reduced turnover percentage with a maximum drawdown of EUR 390 000 for the first five years. However, given a large number of registered and recognised organisations, the Ministry reduced the full amount of annual support to 11,220 EUR per year.

As seen from Table 6.1, a total of 208 groups were recognised, most of them in the form of limited liability companies. However, as seen in Table 6.2, most groups consisted of max. five members, as allowed by the European rules. Most of the groupings were formed to market oilseed and cereal commodities. However, as with other items, most of the marketed production came from closely related or property-related entities, which were created to drain subsidies. At the same time, a large number of relatively small operators (Table 6.3) failed to integrate further into umbrella organisations that could further coordinate and integrate market supply. In reality, the subsidies resulted in many small and market-irrelevant groupings competing mainly with one another. As was subsequently found, most entities closed down or changed their business activities after receiving the pledged amount, and the programme success rate is very low (Kotyza, 2017).

Table 6.1. Amount of subsidy and transactions by legal form of producer groups in the Czech Republic in 2005-2010 (EUR)

Form	Number of applicants	Reimbursed	Average	Marketed	%a
Cooperative	91	9,329,848	102,526	883,723,194	1.06
Ltd.	115	9,203,928	80,034	877,503,123	1.05
Joint stock company	2	316,592	158,296	24 005 218	1.32
Total	208	18,850,368	90,627	1,785,321,535	1.06

Note: a - share of the subsidy in marketed value

Source: the author's calculations based on SZIF ČR (2014) data.

Table 6.2. Average number of agricultural producer groups' members in the Czech Republic in 2005-2010

Commodity		Avera	ge numb	er of mer	nbers		Total 20	006
Commodity	2005	2006	2007	2008	2009	2010	Members	PGs
Potatoes	2.3	2.9	3.3	3.1	3.3	3.3	32	11
Slaughter poultry	3.5	3.0	2.7	2.6	2.6	2.7	124	42
Slaughter pigs	5.0	3.4	3.4	3.3	3.3	2.6	315	92
Slaughter sheep and goats	2.0	4.7	3.8	3.2	3.2	4.0	33	7
Slaughter ostriches		10.0					10	1
Slaughter cattle	5.2	3.5	3.6	3.4	3.3	2.8	252	73
Flowers and ornamental trees		2.0	2.0	2.0	2.0	2.0	2	1
Medicinal, aromatic and spice plants	3.5	3.8	4.4	3.9	3.9	3.3	34	9
Flax, hemp for fibre	2.0	2.0	2.0	2.0			4	2
Cereals	6.2	3.6	3.6	3.6	3.6	2.9	408	112
Oilseeds	6.5	4.1	4.0	3.9	4.0	3.3	471	116
Nursery crops		3.0	3.0	3.0	3.0		3	1
Total	5.3	3.6	3.6	3.5	3.5	2.9		

Source: the author's calculations based on SZIF ČR (2014) data.

Table 6.3. Realised sales in agricultural producer groups in the Czech Republic in 2005-2010 by commodities (EUR)

Commodity	EUR (200	%a	
Commodity	Sales	CZ Production	70°
Slaughter pigs	564 823 695	2 472 950 000	22,84
Cereals	548 729 096	5 188 840 000	10,58
Oilseeds	279 072 211	2 080 710 000	13,41
Slaughter poultry	232 263 967	1 378 120 000	16,85
Slaughter cattle	106 256 757	1 158 960 000	9,17
Potatoes	22 924 514	618 730 000	3,71
Medicinal, aromatic and spice plants	17 730 017	299 750 000	5,91
Flowers and ornamental trees	12 814 037	711 900 000	1,80
Nursery crops of fruit trees	578 198	711 900 000	0,08
Slaughter sheep and goats	39 043	7 330 000	0,53
Total	1 785 231 535	13 676 180 000	13,05

Note: a – share of sales in total production of the commodity

Source: the author's calculations based on SZIF ČR (2014) and Eurostat (2014) data.

In view of the failure of the subsidy measure the subsequent programming measure did not launch any call for new applications. The only financial support for the Czech Republic after 2007 was support for marketing organisations in the fruit and vegetable sector, which belongs to the

Common Market Organisation (COM) of the CAP. This form of cooperation is mainly aimed at entities with at least five members. In 2022, there were 19 recognised producer organisations for the fruit and vegetable sector. Between 2017 and 2021, the National Paying Agency (SZIF) contributed EUR 17.9 million to support approved operational programmes of registered producer organisations (Table 6.4). These are structured financial plans drawn up by the producer organisation and approved by the paying agency. These operational programmes are designed to meet the following objectives (see below) and financially cover a given amount of the eligible costs.

- production planning,
- improving the quality of products, both fresh and processed,
- increasing the commercial value of the products,
- promotion of products,
- environmental measures,
- crisis prevention and management.

Table 6.4. Public aid to producer organisations in the fruit and vegetable sector in the Czech Republic in 2017-2021 (EUR)

Support to producer organisations	2017	2018	2019	2020	2021	Total
in the sector of fruits and vegetables (EUR)	2,907,653	2,200,803	3,887,411	4,618,648	4,367,526	17,982,040

Source: SZIF ČR (2022).

At the same time, there are other sectors within the CMO, for which producer organisations can be set up. These bodies are not financially supported by the EU or national funds, but have an advantage in competition law legislation. In the Czech Republic, producer groups are approved for the milk sector (minimum of ten members). This form of cooperation allows producers to negotiate contract terms (including prices) for up to 33% of national production. Since 2016, it has been possible to simultaneously recognise producer organisations in other sectors of the agricultural output, where the recognised legal entities are focused on concentrating supply and marketing. As of 1 June 2022, 19 Dairy POs have been operating to concentrate supply in the Czech Republic. Other commodities recognised include poppy, beef and veal, pork and eggs.

#### Slovakia

Slovakia, like the Czech Republic, was greatly influenced by the development of the agricultural sector during the socialist period. Slovakia's efforts to join the European Union resulted (as in the Czech Republic) in support for marketing organisations, which was provided after 1999 under national subsidy programmes. The most important instruments before the country's accession to the EU were the aids in the published decrees of the Slovak Ministry of Agriculture. However, in parallel, the EU and Slovakia opened Measure 3 in the SAPARD programme. Although it did not become a significant support instrument regarding the number of approved subsidies, at Slovakia's accession to the EU Measure 3 was the direct predecessor of the Rural Development Plan (RDP SR) adopted in 2004.

National Slovak subsidies were first mentioned in the 1999 decree, i.e., they were actively paid from 2000 to 2003. Since 2004, they have been replaced by the Slovak Rural Development Programme, which allowed the national governments of the new member states to include support for newly established marketing organisations among the instruments of the plan (Kotyza, 2017). The main objective of these pre-accession subsidies was to support the establishment of new producer organisations. The exact list of commodities, for which an organisation could be established, was not specified at the outset. However, priority was given to plant commodities (e.g. fruit, vegetables, potatoes and grapes). It was only in 2003 that the list of supported commodities was extended and specified to correspond to those included in the support under the Rural Development Plan.

The subsidies announced for the 2000-2002 by the Ministry of Agriculture of the Slovak Republic had an identical structure of payment amounts; they could only vary in the details of the conditions of each year. A significant change occurred in 2003 when the conditions were changed and the amount of aid was reduced. In general, the subsidy was granted to cover part of the costs of the activities of agricultural producer organisations and was awarded to applicants in the first three years:

- Payment of 40% of the proven operating costs in the first year of the organisation's operation;
- Payment of 3% calculated on sales in the second year, up to a maximum of 3 million SKK (70,268 EUR);

 Payment of 2% of the revenue generated in the third year of the organisation's operation, up to a maximum of 2 million SKK (46,845 EUR).

In 2003 the rules were changed and in the first and second years the amount of the subsidy was limited to a maximum of 400 thousand SKK (9,369 EUR) calculated based on organisation sales. In the third year, the organisation could receive a maximum of 300 thousand SKK (7,026 EUR). To receive aid it was necessary to meet certain conditions, which varied slightly from year to year. Below is a combination of the basic requirements applicable in each year.

- Demonstration of the capital link between the marketing organisation and primary producers. It was necessary to prove that the producers had a shareholding of at least 34% (2000-2002) or 50% (2003) in the marketing organisation;
- To develop a business plan with stated funding sources for the project, committing in the application that the entity will operate for at least five years;
- The members of the resulting organisation were obliged to sell 100% of their marketable production through the organisation (for 2000-2002); or 80% (for 2003);
- Contracts had to be concluded between the members and the organisation on how and how much to pay for the production delivered:
- The organisation consisted of at least five members; for fisheries marketing organisations, this was three members (2003).

The pre-accession programme supported seventeen marketing organisations, most of which were marketing cooperatives. Only four organisations were registered in another legal form. As can be seen from Table 6.5, the total amount of subsidies paid between 2000 and 2003 exceeded 550,000 EUR. However, this is not a large amount in view of the number of applications. The available data shows that only four organisations drew an above-average amount, while ten did not receive even 20,000 EUR. This can be explained by the fact that only five organisations out of seventeen drew down the subsidy within the maximum possible period (i.e., three years). In contrast, nine companies received the payment in only one year.

Table 6.5. The amount of subsidies within revenues of the Ministry of Agriculture of the Slovak Republic according to legal norms in 2000-2003 (EUR)

Form	Number of applicants	Reimbursed
Cooperative	13	399,306
Ltd.	3	150,583
Joint stock company	1	3,794
Total	17	553,683

Source: the author's calculations based on RADELA - subsidies, agriculture.

The Rural Development Programme (RDP) was not only a continuation of the national support under the decrees of the Ministry of Agriculture of the Slovak Republic, but also a direct continuation of the support granted under the SAPARD programme. The SAPARD support measure (Measure 3) was initially intended to allocate almost 702,674 EUR. However, the commitments increased to 1,234,131 EUR from the applications received and approved. In total, five projects were accepted and financed. As the projects were approved for five years, most of them were transferred after 2003 to measures under the Slovakian Rural Development Programme.

Thus, after the accession of the Slovak Republic to the EU the RDP was adopted and included a subsidy title based on Regulation (EC) No. 1257/1999, Article 33d, for support to producer groups. The conditions adopted in Slovakia were defined in the methodological document of the Slovak Paying Agency, which introduced EU requirements into Slovak practice, limited the amount of aid, while at the same time extending the conditions for applicants for funding.

The requirements that were not incorporated in Regulation 1257/1999 include:

- the minimum number of members for recognition was five;
- members had to sell at least 70% of the production of the commodity(-ies), for which the organisation was recognised through a recognised body;
- the number of members and expected sales volume were scored, and larger organisations were more likely to be recognised;

- the annual realised sales did not include the resale of commodities to producers;
- the list of commodities, for which the grouping could be registered included a total of fourteen product groups.

Table 6.6. Amount of subsidy and transactions by legal form of producer groups in the Slovak Republic in 2005-2013 (EUR)

Form	Number of applicants	Reimbursed	Average	Marketed	%a
Cooperative	90	23,600,673	262,230	1,232,230,520	1.9
Ltd.	6	1,179,831	196,639	23,454,683	0.05
Joint stock company	1	390,000	390,000	25,442,545	1.5
Total	97	25,170,504	259,490	1,281,127,748	1.96

Note: a - share of the subsidy in marketed value

Source: the author's calculations based on data received from the Agriculture Paying Agency of Slovak Republic (2014).

Based on the Agriculture Paying Agency of the Slovak Republic, 97 producer groups were supported. Of these, 90 were set up as cooperatives, while only six groups were set up as limited companies. Only one group was set up as a joint stock company. All 97 groups received support totalling more than 25.1 million EUR. The average subsidy received by each group under this measure was 259,000 EUR. As seen from the data in Table 6.6, the average assistance granted to cooperatives exceeded that given to limited companies by 66,000 EUR. Since the amount of the subsidy was calculated based on annual sales, it is therefore clear that the cooperatives must have traded more, on average, or it was commodities with a higher value.

This statement is also confirmed in the last column of the table (Table 6.6). The figure shows the subsidy amount compared to the total realised sales of the cluster. The lower the percentage, the higher the value of the group supplies to the market. For values of around 1.5-1.7 %, it can be concluded that the cooperatives supplied goods worth around 4.5-5 million EUR per year to the market. All the supported groups achieved almost 1.3 billion EUR in sales on the market for recognised agricultural commodities during the subsidy period (2005-2013). Most of the sales (96.1%) were made by cooperatives.

Table 6.7. Average number of agricultural producer groups' members in the Slovak Republic in 2004-2013

Commoditu	Average number of members			
Commodity	2004-2006	2007-2013		
Poultry and eggs	6.5	5.5		
Нор	13.0	_		
Slaughter pigs	6.0	5.0		
Milk	10.1	7.8		
Cereals	6.6	5.9		
Oilseeds and leguminous crops	12.0	8.1		
Sheep (meat, milk, wool)	11.0	_		
Tobacco	73.0	_		
Potatoes	7.0	_		
Slaughter cattle	-	7.0		
Total	10.0	_		

Source: the author's calculations based on data received from Agriculture Paying Agency of Slovak Republic (2014).

In the period 2005-2013 producer groups were established for 10 commodity groups (Table 6.7). Slovchmel, the only group recognised for hop market under this subsidy, boasts one of the most significant trade shares of all the supported groups. The share of realised production in total Slovak production exceeded 89% (Table 6.8). Tobacco was also undoubtedly one of the commodities significantly represented. The producer group of tobacco growers was to realise 117% of Slovak production. Given the nature of the subsidy, which generally does not allow foreign producers to be included in the traded production, it can be assumed that either the tobacco was further modified before sale or the value of Slovak tobacco production reported by Eurostat (2015) is not entirely accurate. On the other hand, it can be concluded from this figure that the producer group of tobacco growers most likely supplied a majority of the tobacco produced in Slovakia to the market during the period under review. However, this fact is irrelevant for the evaluation of the programme, as this cooperative has already ceased its operations.

Based on the Kotyza (2017) it can be mentioned that the supportive programmes within the RDP were not very successful. Supported organisations did not show any commercial margin, they sold products at the price they had received from their members, and at the same time they generated significant costs for services, which were not covered by their own margin, but mainly by subsidies paid. Their added value was therefore

negative. Other results of Kotyza (2017) show that a large proportion of the enterprises supported were set up solely to draw down funds, which has resulted in the low effectiveness of the programme.

Table 6.8. Realised sales in agricultural producer groups in the Slovak Republic in 2005-2013 by commodities (EUR)

Commodity	EUR (200	%a	
Commodity	Sales	SK Production	/0 <b>a</b>
Milk	451,600,103	3,101,460,000	14.6
Cereals	443,502, 973	5,350,810,000	8.3
Oilseed and leguminous crops	127,580,425	2,162,200,000	5.9
Poultry and eggs	114,374,828	2,336,870,000	4.9
Slaughter pigs	78,227,660	1,917,640,000	4.1
Potatoes	47,656,057	195,560,000	24.4
Нор	7,795,449	8,730,000	89.3
Sheep (meat, milk, wool)	3,739,545	52,140,000	7.2
Tobacco	1,443,637	1,230,000	117.4
Slaughter cattle	5,207,071	844,370,000	0.6
Total	1,281,127,748	15,971,010,000	8.0

Note: a – share of sales in total production of the commodity

Source: the author's calculations based on data received from Agriculture Paying Agency of Slovak Republic (2014).

The failure of the PG RDP subsidy measure led to a situation when the subsequent programming measure did not launch any call for new applications. However, the EU recognises the important role of producer organisations and therefore gives them the right to apply for recognition in the EU country where they operate, not under the framework of the RDP, but within the framework of the COM. Producer organisations (POs) can take various legal forms, including e.g. an agricultural cooperative (European Union, 2022).

This type of sectoral support has been part of European legislation for more than 20 years. In Slovakia this type of sectoral aid has not been very successful. In 2019 only 5 producer organisations were recognised in the fruit and vegetable sector (Euractiv.sk, 2022). The amount of provided support is given in Table 6.9.

The applicant for support shall be a recognised fruit and vegetable producer organisation, an association of producer organisations which have an approved operational programme. However, the final beneficiary shall be the primary producer of fruit and/or vegetables, a member of a fruit and vegetable producer organisation.

Table 6.9. Public aid to producer organisations in the fruit and vegetable sector in the Slovak Republic in 2020-2023 (EUR)

Year	Total paid	Paid from EU sources	Paid from the state budget
2020	2,838,328.86	2,778,199.87	60,128.99
2021	2,894,084.15	2,892,566.65	1,517.50
2022	2,285,113.69	2,283,558.22	1,555.47
Jan-Jun/2023	1,903,878.01	1,90,878.01	-
Total	9,921,404.71	9,858,202.75	63,201.96

Source: the author's calculations based on data received from Agriculture Paying Agency of Slovak Republic (2023).

An operational programme is a business plan of a fruit and vegetable producer organisation and an association of fruit and vegetable producer organisations, which sets out the measures and specific commitments, including the purchase of agricultural machinery and equipment, to be carried out over a period of three to five years by and for its members by the fruit and vegetable producer organisation/association of fruit producer organisations to achieve the development of this sector and to meet the objectives laid down in the EU Regulations. Support for POs shall partially cover expenditure in an operational programme measure at a rate of 50% or 60%.

Based on the Slovakia CAP Strategic Plan 2023-2027 (MPSR, 2022), Slovakia decided to issue a call for recognition of marketing organisations (July 2022) and calls for approval of the operational programme of producer groups, producer organisations, associations of producer organisations (December 2022). In total, 5 sectors are involved: (i) fruits and vegetables, (ii) potatoes, (iii) dairy, (iv) pork meet, (v) sheep and goat meet.

In the fruit and vegetables sector, 7 (2023-24) and 8 (2025-2027) producer organisations will be supported annually with an average amount of 500 000 EUR per year. In total, the aid amounts to 27,5 million EUR. The average annual amount for producers of fruit and vegetables shall be 100 000 EUR, so that the support does not exceed 4.1-5% of sales. The other sectors (potatoes, dairy, pigment, and sheep meat and goat meat), the Slovak Republic will support vertical cooperation between primary producers and processors with

70 projects for a total amount of 25 million EUR. The expected amount of support is 350-400 thousand EUR per one organisation (MPSR, 2022).

#### Poland9

The establishment of groups of agricultural producers in Poland was preceded by the idea to form groups of individual farmers, which was initiated by Resolution No. 209/74 of the Council of Ministers in 1974. According to the Resolution, a group of farmers needed to consists of at least three members, who (Prus and Wawrzyniak, 2010):

- owned separate farms or farming estates,
- were inhabitants of the same or neighbouring villages,
- made an agreement on the establishment of a group and registered it at a commune council,
- worked together as a team,
- started joint activity in agricultural production, following agreements with state-owned companies.

The establishment of groups of individual farmers was supposed to promote the concentration of land and means of production. Apart from that, membership in a group guaranteed aid in the form of low interest credits, deductions from the land tax and lease fees, facilitations and discounts on veterinary services, facilitations in purchasing farming equipment, building materials and seeds, and facilitations in the sales of products and services (Prus and Wawrzyniak, 2010).

Groups of individual farmers can be regarded as the first attempts of farmers' team management in Poland. It preceded the process of formation of groups of agricultural producers, as defined by the Act on Groups of Agricultural Producers and Their Associations and on Amendments of Other Acts of 15 September 2000 (Official Journal of Laws of 2000, No. 88, item 983 with later amendments). According to this law, the aim of groups of agricultural producers is to adjust agricultural production to market conditions, improve management efficiency, plan production focusing on quality and quantity, concentrate supply, organise sales of agricultural products and protect the natural environment. The functioning of each

<sup>&</sup>lt;sup>9</sup> This section uses the updated fragments of the paper by Pawlak et al. (2019).

group is based on a founding act, which defines the rules of admitting new members to the group and the rules of selling shares. According to the statutory regulations, during the first five years following the establishment a group of agricultural producers may receive financial aid from public funds to start and support their administrative activity. The amount of funds is specified in the budget act.

After Poland's accession to the EU new legal regulations concerning groups of agricultural producers began to be effective. The Council Regulation (EC) No. 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (OJ L 277, 21.10.2005 with later amendments) stresses the need to provide means of support to farmers' participation in food quality systems and to support groups of agricultural producers in informative and promotional activities. Details concerning the execution of this regulation can be found in the Commission's Regulation (EC) No. 1974/2006 of 15 December 2006 (OJ L 368, 23.12.2006). These two legal acts were used to prepare the Rural Development Programme 2007-2013. According to the Programme, after the first year of operation a group of agricultural producers could receive financial aid to start administrative activity and investments in the next 5 years. The amount of support was calculated according to the value of annual net income from the sales of products or groups of products, for which the group was established, which were made on the farms belonging to the group members and sold to clients who were not members of the group. The goal of improvement in agricultural producers' competitiveness by formation of groups and associations of producers in the agricultural sector was also supported in the financial perspective of 2014-2020. The budget of the Rural Development Programme 2007-2013 included 146 million EUR to support groups of agricultural producers, whereas the amount to be spent in the 2014-2020 period was 256 million EUR. An agricultural producer group or organisation was able to benefit from the aid only once during their period of activity. The amount of financial assistance was 10%, 9%, 8%, 7% and 6% of the value of the beneficiary's documented annual net revenues, respectively. The maximum aid limit was EUR 100,000 in each year of the five-year aid period (ARMA, 2022).

The process of formation of agricultural producer groups strongly accelerated when Poland joined the EU. In 2005 120 agricultural producer

groups were active, whereas in 2013 the number of agricultural producer groups reached 1255 and it was more than 10 times higher than in 2005 (Table 6.10). On the one hand, the high dynamics of the processes of horizontal integration resulted from the fact that from 2005 to 2008 the National Cooperative Council implemented national projects promoting the formation of agricultural producer groups. On the other hand, it was caused by improved conditions of the EU support provided to agricultural producers forming groups. The amendment to the Act on Groups of Agricultural Producers and Their Associations of 18 June 2004 (Official Journal of 2004, No. 162, item 1694) enabled organisational units without legal personality and legal persons to become members of such groups. As a result, agricultural production cooperatives and limited liability companies started forming groups. Higher rates of financial subsidies for groups and less strict rules of their use were significant elements stimulating the formation of groups. Apart from that, the amendment to the Act on Groups of Agricultural Producers and Their Associations of 15 December 2006 (Official Journal of 2006, No. 251, item 1847) gave agricultural producers forming associations the privilege of exemption from income tax and property tax.

After the year of 2013 the number of agricultural producer groups in Poland decreased and in 2022 it amounted to 740 (Table 6.10). The largest numbers of such groups were established in Wielkopolskie Voivodeship (288), Łódzkie Voivodeship (97), Dolnośląskie Voivodeship (72), Opolskie Voivodeship (68) and Mazowieckie Voivodeship (58), whereas the smallest number of those groups could be found in Świętokrzyskie Voivodeship (2) and Śląskie Voivodeship (7). Thus, the process of formation of agricultural producer groups is successful in central, western and north-western Poland, where larger and specialised farms are prevalent, but it is less advanced in south-eastern regions of Poland.

The rate, at which farmers formed organisations in individual branches was also diversified (Table 6.11). As of 19 April 2022 most groups of agricultural producers were registered among pig producers (311) and cereal and oilseed producers (183). There were fewer groups associating milk producers (84), beef cattle producers (63), and poultry producers (30). Processes of horizontal integration were much less advanced among potato and sugar beet producers.

Table 6.10. Number of agricultural producer groups<sup>a</sup> in Poland in 2005, 2013, and 2022 by voivodeships

Voivodeships	2005	2013	2022
Dolnośląskie	8	122	72
Kujawsko-pomorskie	19	119	43
Lubelskie	10	27	10
Lubuskie	3	68	15
Łódzkie	2	33	97
Małopolskie	12	18	9
Mazowieckie	9	66	58
Opolskie	9	82	68
Podkarpackie	9	38	16
Podlaskie	5	40	9
Pomorskie	4	64	20
Śląskie	-	23	7
Świętokrzyskie	3	18	2
Warmińsko-mazurskie	4	83	15
Wielkopolskie	20	386	288
Zachodniopomorskie	3	68	11
Total	120	1 255	740

 $a-excluding\ groups\ and\ organisations\ of\ producers\ of\ fruit\ and\ vegetables\ organised\ according\ to\ the\ separate\ provisions\ of\ the\ Common\ Organisation\ of\ Agricultural\ Markets$ 

Source: Pawlak et al. (2019), ARMA (2022), the authors' elaboration.

Table 6.11. Number of agricultural producer groups in Poland by branches<sup>a</sup> (as of 19 April 2022)

Branches	Number of agricultural producer groups	Structure (%)
Cereals and oilseeds	183	24.7
Pigs	311	42.0
Poultry	30	4.1
Milk	84	11.4
Beef cattle	63	8,5
Potatoes	21	2.8
Sugar beet	19	2.6
Other products	29	3.9
Total	740	100.0

a – excluding groups and organisations of producers of fruit and vegetables organised according to the separate provisions of the Common Organisation of Agricultural Markets

Source: ARMA (2022), the authors' calculations.

As mentioned above, a key factor affecting the development of agricultural producer groups in Poland was financial support from the Rural Development

Programme. Table 6.12 presents financial support for agricultural producer groups within the 2007-2013 and 2014-2020 programme periods. According to the data of the Agency for Restructuring and Modernisation of Agriculture (ARMA), under the RDP 2007-2013 the amount of payments made to 756 beneficiaries was around 271.3 million PLN. In the next programme period the amount of support was more than as twice as high at a smaller number of beneficiaries. This figures shows the importance of financial support in promoting the horizontal integration in the agricultural sector.

In both multiannual financial frameworks, the largest amounts of payments made were recorded in Wielkopolskie Voivodeship, Dolnośląskie Voivodeship, Opolskie Voivodeship and Mazowieckie Voivodeship. Moreover, in 2014-2020 agricultural producer groups from Łódzkie Voivodeship were granted significant support from the EU funds. The share of the five above-listed voivodeships in the total amount of support for agricultural producer groups in 2014-2020 amounted to 87%. It results from Table 6.12 that farmers from the voivodeships with a higher level of agricultural development are more interested in establishing groups of agricultural producers than producers from voivodeships characterised by greater fragmentation of farms.

Polish agriculture has a considerable productive potential. When it is appropriately allocated and supported with price advantages, it can be effectively used to strengthen competitive advantages on the local, regional and global market. However, increasing production efficiency and volume of production is a key issue to improve competitiveness of the Polish agricultural sector. It should be accompanied by transformations in agrarian and productive structures, i.e. the territorial concentration of farms and greater specialisation of production. Organising farmers into producer groups is one of the methods to accelerate those transformations and to increase farm competitiveness and in consequence, to enhance competitiveness of the entire agricultural sector.

The process of establishment of agricultural producer groups accelerated considerably when Poland joined the EU, especially thanks to the possibility to receive support from public funds. A majority of such groups operated in central, western and north-western regions, where larger and specialised farms are prevalent and where farmers understand the need of joint activity and see the benefits of cooperation. So far Polish producers of cereals, oilseeds, pigs and milk have been relatively best organised. The financial support enables group members to generate cost and price advantages and

to increase production profitability. However, it is important to note that thanks to joint investments and modernisation of the production potential the establishment of an agricultural producer group enables farmers to gain efficiency, technological and qualitative advantages, which will ensure a more stable competitive position.

Table 6.12. Number of beneficiaries and financial support for agricultural producer groups in Poland within the 2007-2013 and 2014-2020 RDPs (as of 31 August 2023)

	RDP 20	007-2013	RDP 2014-2020		
Voivodeships	Number of beneficiaries	Amount of payments made (PLN)	Number of beneficiaries	Amount of payments made (PLN)	
Dolnośląskie	69	23,262,015.28	51	26,867,035.61	
Kujawsko-pomorskie	56	14,786,583.38	39	24,001,043.16	
Lubelskie	17	6,658,017.93	7	6,113,760.27	
Lubuskie	22	7,490,518.56	11	7,450,276.73	
Łódzkie	22	12,604,453.04	105	132,444,278.05	
Małopolskie	8	3,079,143.12	0	0.00	
Mazowieckie	52	27,882,774.87	37	45,615,894.41	
Opolskie	59	22,538,649.28	62	63,914,206.23	
Podkarpackie	31	6,944,499.35	5	3,321,660.59	
Podlaskie	21	9,525,143.97	1	1,339,909.09	
Pomorskie	38	16,829,832.39	17	17,811,904.69	
Śląskie	12	7,057,939.66	3	5,033,659.04	
Świętokrzyskie	6	1,933,807.07	0	0.00	
Warmińsko-mazurskie	46	18,763,440.63	10	8,802,561.74	
Wielkopolskie	277	86,192,994.43	310	234,594,549.80	
Zachodniopomorskie	20	5,705,085.11	2	1,049,365.02	
Total	756	271,254,898.07	656	578,380,104.43	

Source: ARMA (2023), the authors' elaboration.

Organising farmers into groups of producers is a prerequisite for meeting the requirements of increasingly competitive agricultural markets. This also gains in importance when implementing the European Green Deal aiming at minimising the negative environmental impact of the agricultural sector. The pattern of food production is described in the "farm-to-fork" strategy, which is a scenario for a fair, healthy and environmentally friendly food system. The Green Deal agricultural policy aims to achieve its goals with equity among agricultural producers. Among other things, this is how the farm-to-fork strategy seeks to boost the economic condition of small farms so

that they are not able to compete in volume. In theory, this is a valid concept, but in practice it would force farmers to drastically change their on-farm production direction. One solution is to be able to establish partnerships with other farmers. However, the formation of farm producer groups still faces obstacles. The symbiotic model, as a co-operation between a large company-integrator and satellite individual farms, creates a new category of co-operation. The existence of a strong integrator facilitates the integration process, which this entity will provide.

#### Lithuania

Lithuania has a large number of small farms (Table 6.13). In small farms it is more difficult to develop business. In order for these farms to survive in a competitive market and be economically viable, one solution is partnership with other producers. Agriculture and rural development documents emphasise that cooperation between farms would allow them to operate more efficiently and generate higher incomes (Kooperacijos nauda..., 2022). Cooperation in groups of producers helps to solve economic and social problems that arise for farms, helps to increase competitiveness of the agricultural and food production sector on an international scale.

While there is a trend towards larger farms, the share of small farms remains significant. At the beginning of 2021, small farms of up to 10 ha accounted for around 70% of farms. A similar share of small farms has been maintained for more than ten years. The number of young farmers has also remained largely unchanged, with a similar share of around 17% ( $\bar{\text{U}}$ kininkų  $\bar{\text{u}}$ kių..., 2021).

The Lithuanian Rural Development Programme 2014-2020 stated that problems of farms, especially small and medium-sized farms, could be addressed by setting up producer groups. Thus, small and medium-sized farms would not only operate much more efficiently and generate higher production incomes, but would also have greater investment opportunities if they were to form a producer group. The formation of producer groups can increase the productivity and efficiency of agricultural production and stimulate small and medium-sized farming activities. It is recognised that producer group activities encourage the production of better quality and competitive products, help to increase operating income, creating more jobs in rural areas and facilitating access to EU Structural Funds support.

Table 6.13. Number of small farms and young farmers in Lithuania according to counties as of 1 January 2021

Counties	Number	Average size	age size Farms up to 10 ha			Farmers up to 40 years old		
Counties	of farms	of holding. ha	Number	Share (%)	Number	Share (%)		
Alytaus	6833	10.86	4 975	72.8	1 050	15.4		
Kauno	11671	14.97	8 574	73.5	1 927	16.5		
Klaipėdos	8332	12.29	5 897	70.8	1 142	13.7		
Marijampolės	7900	16.52	5 319	67.3	1 233	15.6		
Panevėžio	7950	23.41	4 511	56.7	1 340	16.9		
Šiaulių	7673	28.75	3 983	51.9	1 299	16.9		
Tauragės	8402	14.4	5 377	64	1 085	12.9		
Telšių	6194	17.28	3 648	58.9	965	15.5		
Utenos	10029	14.15	6 633	66.1	1 493	14.9		
Vilniaus	11334	8.32	9 352	82.5	2 385	21.1		
Total	86318	15.67	58 269	67.5	13 919	16.1		

Source: (Kooperacijos nauda.., 2022).

Lithuanian fruit and vegetable producers seeking to compete not only on the Lithuanian market, but also on the EU market can benefit from financial support from the European Community by applying for support under the measure "Recognition of fruit and vegetable producer groups". This measure was applied under the Rural Development Programme 2007-2013. A fruit and vegetable producer group was recognised if it had at least 5 members and met the other criteria of the rules.

The EU's third priority for Rural Development, to promote food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture, supports the establishment and operation of producers. Producer groups help farmers and other producers to become more active, to innovate, to adapt more successfully to new technologies and a new and changing environment, to share their experience more extensively and to have better access to practical, scientific and technical knowledge. According to the implementing rules, a producer group must have at least 10 members/participants (Gamintojų grupių..., 2021).

According to our information sources, in 2021 there were 4 groups of producers in Lithuania (Table 6.14). One of the limiting factors is the lack of real, successful examples of the activities of the producer group. Since a large proportion of farmers are older farmers, they are less active, have difficulty initiating and implementing changes, and have more conservative attitudes

towards cooperation. This is also related to historical experience. Any joint initiatives are often associated and juxtaposed with the Soviet period, i.e. the collective farm experience. Lack of trust in others and lack of leadership are also some of the factors limiting the establishment of producer groups. It is feared that if you get involved in the activities of a cooperative or group of producers, you may lose the opportunity to make your own decisions, you will have to follow common rules and you will lose the opportunity to manage the farm's activities, risks, and finances yourself.

Table 6.14. Agricultural producer groups in Lithuania in 2021

Agricultural producer group	Number of members	Share of young farmers		
1_milk_"Pieno partneriai"	8 farmers' farms and 3 agricultural cooperative companies: ŽŪKB "Pamario pienas", ŽŪK "Pienininkai", ŽŪKB "Pieno gėlė"	Farms are registered in the name of the older generation, but younge		
2_vegetable_"Agrolit"	UAB "Kietaviškių gausa", UAB "Kėdainių gėlės", farmer A. Juška, farmer A. Žemaitis, farmer V. Vyšniauskas.	family members are likely to be directly involved in the farm.		
3_organic crop and livestock production_Bio LEUA	BIO LEUA unites 40 farms,	It was not possible to contact and find who those members are,		
4_crop production_ŽŪK "Plant"	lack of information on the number of members	but it is likely that there will be several young people.		

Source: the author's elaboration.

#### Hungary

The establishment of producer groups in Hungary actually started even before joining the EU in accordance with the Community regulations and support system (Rácz, 2017; after Barta and Sarai, 2005; Barta et al., 2010; Dorgai et al., 2005).

The emergence of benefits generated by cooperation naturally depends on many factors. The diversity of producer groups and their backgrounds greatly influences the effectiveness and success of their operations. Below, we present research results specifically focused on Hungarian agricultural producer groups. Based on a research conducted among Hungarian producer groups, we can say that the success of organisations operating as producer groups does not depend so much on the quality of the formalised structure, but rather on the organisational level risk management techniques and the degree of trust between cooperating members (Szabó and Barta, 2014). This is also confirmed by the research of Biró et al. (2014). At the same time,

they added that the role of Hungarian producer groups is decisive in the dissemination of innovation, including technological dimensions that can be directly applied in the production process and ICT solutions to support efficient flow of information.

In addition to organisational features, the composition of members is also influenced by macro-level factors, including the concentration of the given sector or the organisation of product markets. A higher number of members is typical mainly in the grape and wine sector, in the area of arable crop production, and in the sheep sector. At the same time the groups established in the cattle, pig and poultry sectors have had an average of only 20-40 members over the last years. Of course, the structure of the membership of producer organisations/producer groups is also influenced by the support mechanism (Rácz, 2017).

However, in addition to the successes there are also shortcomings and many challenges. A vast majority of newly established organisations only offer partial integration; their activities are restricted to the joint purchase of inputs and raw materials, as well as the joint selling of goods made by the members (Rácz, 2017; after Dorgai et al., 2005; Szabó and Barta, 2014; Tolvaj-Gergő, 2014). Typically, organisations with a strong capital standing can devote significant resources to investments that increase production efficiency, innovation-based knowledge transfer and full-scale integration. They limit the number of members due to risk management considerations and pre-select their members (Biró et al., 2015).

Another challenge to be solved is to increase the proportion of product processing and extend their value chain. Based on 2015 data, producer groups process an average of 15 percent of their own primary agricultural products. The employment data of the Hungarian producer groups is also below average. However, by increasing the competitiveness of the farms integrated as members, producer groups contribute to maintaining and expanding the employment of producers. Based on expert estimates, more than 20,000 people are employed in farms integrated by recognised producer groups, including atypical forms of employment: family and seasonal workers.

Tables 6.15 shows changes in the number of producer groups and their distribution by product group in relation with the indicated years. In 2006, there were 229 recognised producer groups in Hungary, while in 2015 this number decreased to 184. In the last two years examined (2020, 2023),

their number could not recover even compared to the lower value of 2015. In all the four years, the predominance of the animal husbandry sector can be observed. In 2006, the following product groups had the largest number of organisations: cereal, poultry & eggs, and other field crops. By 2015, 2020 and 2023, the same three areas remained the top three, but their order and size also changed. The other field crops category strengthened spectacularly and took over the leading position: 32 producer groups were operating in 2006, while in 2023, it was 75). The latter category in our study includes producers of potatoes, oil crops, organic products and those in the fruit and vegetable sector.

Table 6.15. The number and distribution of recognised agricultural producer organisations in Hungary by products and product groups in 2006 and 2015

Draduat / product group	2006		2015		2020		2023	
Product / product group	Number	%	Number	%	Number	%	Number	%
Poultry and eggs	35	15.3	30	16.3	17	10.3	15	8.5
Cattle	0	0	1	0.5	6	3.6	7	4.0
Sheep	12	5.2	9	4.9	6	3.6	6	3.4
Beekeeping	8	3.5	7	3.8	4	2.4	4	2.3
Rabbit	5	2.2	2	1.1	2	1.2	2	1.1
Pig	25	10.9	19	10.3	11	6.7	12	6.8
Milk	8	3.5	10	5.4	11	6.7	10	5.7
Fish	2	0.9	0	0	0	0.0	0	0.0
Animal husbandry in total	95	41.5	78	42.4	57	34.5	56	31.8
Cereals	73	31.9	45	24.5	26	15.8	29	16.5
Other field crops	32	14	42	22.8	66	40.0	75	42.6
Rice	0	0	1	0.5	0	0.0	0	0.0
Soy	3	1.3	1	0.5	1	0.6	1	0.6
Flower and ornamental plants	0	0	1	0.5	0	0.0	0	0.0
Tobacco plants	3	1.3	1	0.5	1	0.6	1	0.6
Forest tree	0	0	1	0.5	1	0.6	1	0.6
Sugar beet	9	3.9	5	2.7	6	3.6	6	3.4
Grapes and wine	14	6.1	9	4.9	7	4.2	7	4.0
Plant cultivation in total	134	58.5	106	57.6	108	65.5	120	68.2
Total	229	100.0	184	100.0	165	100.0	176	100.0

Source: Rácz (2017), State Secretariat for Agriculture (2020), Ministry of Agriculture (2023).

Table 6.16 contains data on the development of the geographical distribution of these organisations. The largest number of producer groups in 2020 were in the counties of Baranya and Hajdú-Bihar, with 19 entities each.

The dominance of the two counties remained in 2023, with 25 organisations in Baranya and 22 in Hajdú-Bihar.

Table 6.16. The number and distribution of recognised agricultural producer organisations in Hungary by their geographical location in 2020 and 2023

County (MUTS2 region)	20	20	2023		
County (NUTS3 region)	Number	%	Number	%	
Bács-Kiskun	12	7.3	13	7.4	
Baranya	19	11.5	25	14.2	
Békés	7	4.2	6	3.4	
Borsod-Abaúj-Zemplén	10	6.1	10	5.7	
Budapest, Pest (central region)	3	1.8	3	1.7	
Csongrád-Csanád	8	4.8	8	4.5	
Fejér	9	5.5	8	4.5	
Győr-Moson-Sopron	7	4.2	7	4.0	
Hajdú-Bihar	19	11.5	22	12.5	
Heves	4	2.4	5	2.8	
Jász-Nagykun-Szolnok	6	3.6	7	4.0	
Komárom-Esztergom	4	2.4	4	2.3	
Nógrád	2	1.2	1	0.6	
Somogy	16	9.7	17	9.7	
Szabolcs-Szatmár-Bereg	9	5.5	9	5.1	
Tolna	15	9.1	16	9.1	
Vas	3	1.8	3	1.7	
Veszprém	4	2.4	4	2.3	
Zala	8	4.8	8	4.5	
Total	165	100.0	176	100.0	

Source: Rácz (2017), State Secretariat for Agriculture (2020), Ministry of Agriculture (2023).

The financial support of producer groups is also a priority in the current financial framework period (2021-2027). The amount of 13.4 billion HUF (around 35 million EUR) is available from the resources of the Common Agricultural Policy for this purpose. It is a novelty that, based on EU legislation, only new organisations or new activities of existing organisations can be supported. The amount of support is 6% of the annual production value sold, up to a maximum of 100,000 EUR per organisation, when a new activity is being implemented. The general objective of the ministry is to increase the extremely low cooperation skills of Hungarian farmers, to strengthen their market bargaining positions through cooperation, and to encourage members of the agrarian and local communities to act together (Polai, 2022).

The support of producer groups is obviously important and necessary, since in many cases they can activate and integrate special resources, and generate such advantages or even long-term sectoral impacts that would not or could not emerge at all with sufficient efficiency in other situations. It should not be ignored, however, that dependence on sources becomes counterproductive in the long run. According to this, producer groups must strive to tailor their capabilities and special resources to their own characteristics and operating environment. In the future it is expected that the traditional problems and challenges aimed at the minimisation of production costs and unit prices (static competitive advantages) will remain (e.g. inflation, labour costs, volatility of energy prices, etc.). However, new trends also appear and the producer groups must adapt to them as well. The importance of soft factors is also becoming more and more important. Strengthening trust, developing social capital and culture becomes particularly decisive in the digital transformation that also affects agriculture. Producer groups can be innovative and exemplary in this area as well.

# 6.3. Driving forces and effects of horizontal integration in the supply chain: farmers' experiences

Krisztián Kis, Sándor Nagy

Cooperation is an undeniably important part of social and economic life. This is no different in the agricultural sector, where cooperation through the associating and networking of producers (e.g. co-operatives, producer organisations, producer groups) plays a prominent role in organising and coordinating producers' activities, enabling them to realise economic, social and cultural benefits that they would not be able to achieve on their own.

As Náray-Szabó (2006) pointed out, history has shown that one of the laws of development is that groups, which members cooperate with one another have an advantage, and that human communities that are better organised can develop and survive in the long run. In this context, those individuals, organisations and societies that are able to adapt and respond