

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT **B**
STRUCTURAL AND COHESION POLICIES

Agriculture and Rural Development

Culture and Education

Fisheries

Regional Development

Transport and Tourism

TOWARDS NEW RULES FOR THE EU'S FRUIT AND VEGETABLES SECTOR

STUDY





DIRECTORATE-GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT B: STRUCTURAL AND COHESION POLICIES

AGRICULTURE AND RURAL DEVELOPMENT

TOWARDS NEW RULES FOR THE EU'S FRUIT AND VEGETABLES SECTOR

An EU Northern Member States
Perspective

STUDY

This document was requested by the European Parliament's Committee on Agriculture and Rural Development.

AUTHOR

Wageningen University: Jos Bijman

RESPONSIBLE ADMINISTRATOR

Guillaume Ragonnaud
Policy Department B: Structural and Cohesion Policies
European Parliament
B-1047 Brussels
E-mail: poldep-cohesion@europarl.europa.eu

EDITORIAL ASSISTANCE

Catherine Morvan

LINGUISTIC VERSIONS

Original: EN.

ABOUT THE PUBLISHER

To contact the Policy Department or to subscribe to its monthly newsletter please write to:
poldep-cohesion@europarl.europa.eu

Manuscript completed in February 2015.
© European Union, 2015.

This document is available on the Internet at:
<http://www.europarl.europa.eu/studies>

DISCLAIMER

The opinions expressed in this document are the sole responsibility of the author and do not necessarily represent the official position of the European Parliament.

Reproduction and translation for non-commercial purposes are authorized, provided the source is acknowledged and the publisher is given prior notice and sent a copy.



DIRECTORATE-GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT B: STRUCTURAL AND COHESION POLICIES

AGRICULTURE AND RURAL DEVELOPMENT

TOWARDS NEW RULES FOR THE EU'S FRUIT AND VEGETABLES SECTOR

An EU Northern Member States
Perspective

STUDY

Abstract

This study analyses the situation of the fruit and vegetables sector in the EU Northern Member States. It also suggests possible improvements of EU rules. The study was presented to the Committee on Agriculture and Rural Development on 22 January 2015.

CONTENTS

LIST OF ABBREVIATIONS	5
LIST OF TABLES	7
LIST OF FIGURES	7
EXECUTIVE SUMMARY	9
1. INTRODUCTION	11
2. PRODUCTION AND FARM STRUCTURE IN SELECTED NORTHERN MEMBER STATES	13
2.1. Fruit and Vegetable Production in the EU	13
2.2. Production in Selected Northern Member States	14
2.3. Farm Structure in Selected Northern Member States	17
3. AGRICULTURAL COOPERATIVES IN THE EU	23
3.1. Introduction	23
3.2. Major differences in share of products sold through cooperatives	24
3.3. Strong concentration process through mergers	25
3.4. Bargaining cooperatives and handling cooperatives	26
3.5. Transnationalization of Cooperatives	27
3.6. Individual versus Collective Entrepreneurship	29
3.7. Cooperation and Trust	29
3.8. Cooperatives and Supply Chain Integration	31
3.9. Leadership in cooperatives	32
3.10. Enabling legislation	32
4. ORGANISATION RATE	35
4.1. Organisation rate in POs	35
4.2. Organisation Rate: POs versus Cooperatives	38
5. EXPERIENCES WITH THE CURRENT F&V REGIME	39
5.1. Evaluation by the Commission	39
5.2. Legal Uncertainty	40
5.3. Outsourcing	41
5.4. Transnational POs	42
5.5. Environmental Measures	43
5.6. Vertical integration	44
5.7. Innovation, training, technical assistance	44
5.8. Competition	45

6. CONCLUSIONS AND RECOMMENDATIONS	47
REFERENCES	51
ANNEXES	53
ANNEX 1. SPECIFIC CHARACTERISTICS OF THE F&V SECTOR	53
ANNEX 2. SHARE OF F&V IN TOTAL AGRICULTURAL OUTPUT OF EU28	55

LIST OF ABBREVIATIONS

AGRI	Agriculture and Rural Development Committee
APO	Association of Producer Organisations
CAP	Common Agricultural Policy
CMO	Common Market Organisation
EP	European Parliament
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
F&V	Fruit and Vegetables
MS	Member State(s)
PG	Producer Group
PO	Producer Organisation
SFC	Support for Farmers' Cooperatives
VMP	Value of Members' Product

LIST OF TABLES¹

TABLE 1	
Country shares in the total EU production of the five main vegetables and two main fruit products (in tons, 2013)	16
TABLE 2	
Recognised POs and APOs: changes in some key parameters (2004-2010)	36
TABLE 3	
Share of the F&V sector in the total agricultural output of EU28. Average 2011-2013	55

LIST OF FIGURES

FIGURE 1	
Average growth of production value per year (producer prices), 2001-2009	14
FIGURE 2	
Contribution of the production value of Fresh Vegetables of Netherlands, Poland, United Kingdom, Germany, and Belgium. Year 2013.	14
FIGURE 3	
Trend in output vegetable sector in Belgium, Germany, Netherlands, Poland and United Kingdom 2004-2014.	15
FIGURE 4	
Contribution of the production value of Fruits of Netherlands, Poland, United Kingdom, Germany, and Belgium. Year 2014	16
FIGURE 5	
Trend in output fruit sector 2004-2014.	17
FIGURE 6	
Number of Fruit Holdings in Belgium, Netherlands, United Kingdom and Germany. Evolution 2005-2010.	18
FIGURE 7	
Fresh Vegetable sector holding size in Belgium, Germany, Netherlands, United Kingdom and Poland, Evolution 2005 – 2010.	18
FIGURE 8	
Evolution of the number of farms, size of the farms and area under production of tomatoes, The Netherlands, 2000-2013.	19

¹ The author would like to thank Santiago Lusquiños for preparing the graphs and tables.

FIGURE 9	
Distribution of vegetable farms per size class.	20
FIGURE 10	
Number of vegetable farms per size class in Poland	20
FIGURE 11	
Number of Fruit farms per size class	21
FIGURE 12	
Market shares of all agricultural marketing cooperatives per EU member state, 2010	25
FIGURE 13	
Transnational cooperatives in F&V sector - mother countries and host countries	28
FIGURE 14	
Trust in Political Institutions and Membership Intensity in different Member States	31
FIGURE 15	
Organisation rate by MS in the F&V Sector (2010)	35
FIGURE 16	
Comparing organisation rates (VMP/total value F&V) 2004 and 2012.	37
FIGURE 17 Organization rate of F&V production (VMP/total value of F&V production), The Netherlands, 2000-2011	37
FIGURE 18	
Market share of cooperatives and organization rate of PGs, POs and APOs in the F&V sector.	38

EXECUTIVE SUMMARY

The EU actively supports the fruit and vegetable (F&V) sector through the Common Market Organisation (CMO) for F&V. The key objective of this F&V scheme is to strengthen the competitiveness of producers. In order to reach this goal, growers are encouraged to join producer organisations (POs). These receive support for implementing operational programmes, based on a national strategy.

A recent report of the European Commission on the fruit and vegetables regime (COM (2014)112 final) analyses the implementation of the provisions concerning producer organisations, operational funds and operational programmes in the F&V sector since the 2007 reform. The report concludes that a crucial issue for the sector is the persistently low degree or lack of organisation in some MS. The report also stresses that the complexity of the procedures for obtaining recognition as a PO, for having an operational programme approved and, subsequently, for having access to the public financial aids is a possible obstacle to the development of POs.

This study serves to inform the members of the European Parliament, particularly the members of the Committee on Agriculture and Rural Development (COMAGRI), concerning possible improvements of the EU rules regarding the F&V sector. This study was presented and discussed at the EP workshop entitled "Towards new rules for the EU's Fruit and Vegetable Sector" (held on 22 January 2015). Where appropriate, the study takes the perspective of EU Northern Member States.

Based on desk research and consultations among representatives of industry and national authorities, this study presents description, analysis and recommendations. Chapter 2 gives a brief overview of the production and farm structure in selected Northern Member States, notably Poland, Germany, The Netherlands, Belgium and the United Kingdom. This information shows that the number of farms rapidly decreases and the size of the remaining farms rapidly increases, while cultivation area and production value are more or less stable. Thus, the membership of POs is changing towards larger and more professional farms.

Chapter 3 presents the key trends among agricultural cooperatives in the EU. This information shows that there are many factors that explain the level of cooperativeness in individual countries. As POs are cooperatives themselves (or at least organisations based on cooperative principles), explanations for the particular level of farmer organisation also apply to POs. Like (other) cooperatives, POs experience challenges in their strategies, their internal governance, and in the quality of their leaders. For the future of transnational POs, much can be learned from transnational cooperatives. An important point to be learned from the long-term development of cooperatives is the crucial role of trust.

Chapter 4 presents the trend in organisation rate in the F&V sector (e.g. value of product marketed through POs / value of total F&V product) and compares this with the trend in cooperative membership. The conclusion is that the organisation rate in the F&V sector is actually rather high, and certainly no reason for concern.

Chapter 5 presents an extensive discussion of the current implementation of the F&V schemes as experienced by EU Northern Member States. The key issue at stake is legal uncertainty, due to different interpretation of the rules by the policy units of the Commission and the National Authorities discussing with the Commission on the one hand, and the Audit Service of the Commission on the other hand. In addition, there are problems with the rules on outsourcing, environmental measures, and competition. Next to improving legal certainty, a simplification of the scheme would be recommended.

This study concludes, in Chapter 6, that no new rules the EU F&V sector are needed. The organisation rate has gone up substantially over the last decade, and is even higher than one would expect on the basis of comparing POs and (other) agricultural cooperatives. What is desperately needed in the F&V scheme is more legal certainty. This can be obtained by simplification of the schemes as well as by more guidance from the Commission.

Other recommendations following from this study are the simplification of the environmental measures, and a stronger focus on support for marketing measures (including new product development). In addition, operational programmes should provide more support for human capital building, for technical skills needed to continuously improve sustainability and to enhance innovativeness, but also for managerial skills as members themselves are involved in the governance of the PO. Also the support of experienced POs for new POs, domestically or internationally, could be part of the human capital programme. Finally, POs could play a role in promoting joint innovation, whether oriented at cultivation or at marketing.

1. INTRODUCTION

The EU actively supports the fruit and vegetable (F&V) sector through the Common Market Organisation (CMO) for F&V. This policy has four main goals: (1) a more competitive and market-oriented sector; (2) fewer crisis-related fluctuations in producers' income; (3) greater consumption of fruit and vegetables in the EU; and (4) increased use of eco-friendly cultivation and production techniques.

In order to strengthen their competitiveness, growers are encouraged to join producer organisations (POs). These POs receive financial support for implementing operational programmes, carried out within the priorities set by Member States' national strategies. In certain EU regions, for a transitional period, producer groups (PGs) formed on the initiative of growers can get financial aid to help them attain recognition as POs.

Operational programmes must have at least two or more of the following objectives: (a) ensuring that production is planned and adjusted to demand, particularly in terms of quality and quantity; (b) concentration of supply and the placing on the market of the products produced by its members; (c) optimising production costs and stabilising producer prices; (d) planning of production; (e) improvement of product quality; (f) boosting the commercial value of products; (g) promotion of the products, whether in a fresh or processed form; (h) environmental measures and methods of production respecting the environment, including organic farming; and (i) crisis prevention and management.

To reduce income fluctuation from crises, operational programmes may include crisis prevention/management measures, such as product withdrawal, green harvesting/non-harvesting; promotion/communication tools; training; harvest insurance; help to secure bank loans and cover administrative costs of setting up mutual funds (farmer-owned stabilisation funds).

Greater consumption of F&V is supported through a school fruit scheme in order to promote fruit and vegetable consumption by children. Support is also given to free distribution of fruit and vegetables to schools, hospitals and charities. Other activities promoting consumption under PO's operational programmes can also receive support.

For reaching the goals of eco-friendly cultivation and production, the F&V scheme requires POs to dedicate at least 10 percent of spending of the operational programmes on environmental actions that go beyond mandatory environmental standards. Alternatively, programmes must include at least two such actions.

The F&V regime has been reformed several times over the last decades. The last major revision was in 2007, when POs were further strengthened, incentives for close collaboration among POs in associations of POs (APOs) and transnational POs were introduced, more emphasis was placed on environmental measures, and a wider range of tools became available to enable POs to prevent and manage market crises.

The 2013 reform did not introduce major changes into the EU regime for the F&V sector. Two changes were introduced: (a) associations of POs (APOs) may now set up an operational fund, with the financial contributions from the associated POs and the EU financial assistance; and (b) the set of crisis prevention and management was extended. A

further significant amendment was the shift of the EU aid to producer groups from the first to the second pillar and making it available for all MS.

The recent “Report on the fruit and vegetables regime” (COM (2014)112) of the European Commission and the related Staff Working Document SWD (2014)54 analyse the implementation of the provisions concerning POs, operational funds and operational programmes in the F&V sector since the 2007 reform. The report concludes that a crucial issue for the sector is the persistently low degree or lack of organisation in some MS. The report also stresses that the complexity of the procedures for obtaining recognition as a PO, for having an operational programme approved and, subsequently, for having access to the public financial aids are possible obstacles to the development of POs.

The Commission concludes in its 2014 report that in order to address several shortcomings, the current F&V regime needs to be reviewed to ensure that support for POs is better focused so that it can achieve the overall objectives of the 2007 reform and CAP 2020 in all Member States.

The focus of this study is on the organisation rate in the F&V sector. In other words, what share of all F&V producers is member of a PO and what share of total F&V production is marketed through a PO. In order to understand organisation rate, this study places the development of POs in a wider perspective of the development of agricultural cooperatives in the EU. Although POs are not necessarily registered under the legal form of a cooperative, they are established on the basis of such cooperative principles as farmer-ownership and democratic control. This report argues that the development of POs in the F&V sector in individual MS can be, at least partly, explained by the general development of agricultural cooperatives in those MS.

This Briefing Note is based on desk research and a number of interviews with representatives of the F&V sector in Northern Member States. A large number of documents have been reviewed, such as EU reports, national strategy descriptions, evaluation reports of national strategies, and publications and presentations from organisations and persons representing F&V producers and POs.

This study is structured as follows. Section 2 presents a brief overview of the main trends in the structure of F&V production in a number of selected Northern EU Member States. Our analysis is focussed on the largest producers of F&V: Poland, Germany, The Netherlands, Belgium and the UK. Section 3 presents an overview of the recent developments among agricultural cooperatives in the EU. Section 4 presents figures on the organisation rate, and how this rate has changed over the last decade. Section 5 presents the experiences with the implementation of the current F&V scheme in the Northern Member States, and section 6 presents conclusions and recommendations.

2. PRODUCTION AND FARM STRUCTURE IN SELECTED NORTHERN MEMBER STATES

KEY FINDINGS

- Among Northern Member States, the main producers of F&V are Poland, Germany, The Netherlands, Belgium and the United Kingdom. The main products are carrots, onions, cucumber, apples and pears.
- The number of farms is rapidly decreasing in all these countries. Between 2005 and 2010 the number of vegetable farms decreased by 15% in The Netherlands, 18% in Belgium, 24% in Germany and 34% in the UK.
- As the total area used for F&V production has not changed significantly in the same period, the average size of the farm is rapidly increasing.
- F&V farms continue to exist in many different size classes, although Germany and Poland have many small fruit farms.

2.1. Fruit and Vegetable Production in the EU

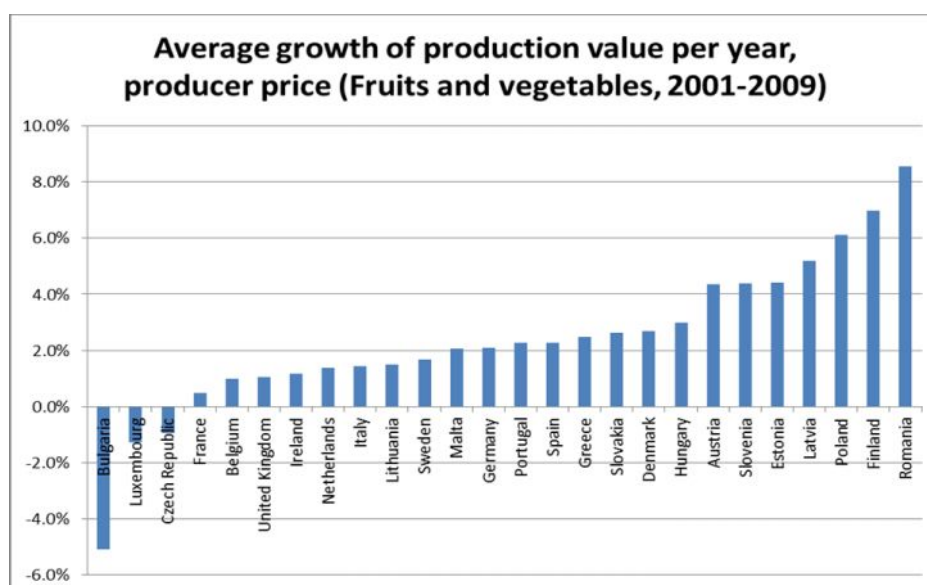
The Fruit and Vegetable (F&V) sector is a key sector in EU agriculture, weighting around 17% of EU agricultural production (divided in 10% for vegetables and 7% for fruits). Production of F&V takes place in all Member States, but large differences exist in the relative importance of F&V in total agriculture (for details per MS see Appendix 2).

The EU F&V sector consists of a large number of different products. The most important vegetables, in terms of volume harvested products (2010 figures), are tomatoes (16.1 million tons), carrots (5.1 million tons), and onions (5.4 million tons). In the category fruits, the main products are apples (10.4 million tons), oranges (6.3 million tons) and pears (2.5 million tons).

The F&V sector is particularly important in the Mediterranean countries, due to their favourable climatic and topographic conditions. The weight of the sector in the total agricultural production of the individual Member States is notably large in Greece (38%), Cyprus (36%), Malta (35%), Portugal (31%), Spain (30%), Italy (29%), and Romania (27%). In addition, there are a number of Northern Member States in which the F&V sector has a significant share of total agriculture. These countries are Belgium (20%), Poland (19%), The Netherlands (17%), Finland (17%) and Slovenia (15%).

Zooming in on F&V production per MS, most important countries are (in order of the absolute value F&V production): Italy, Spain, France, Romania, Poland, the Netherlands, Greece, and Germany. Spain and Italy continue to be the largest producers of F&V, accounting for almost 40% of vegetables production, and more than 50% of total EU fruit production (including citrus). Among the Member States from Eastern Europe, Poland and Romania are large producers, particularly of vegetables. The latter countries have greatly increased their production of F&V over the last decade, with growth figures substantially above the EU average (Figure 1).

Figure 1. Average annual growth of F&V production value (producer prices; 2001-2009)

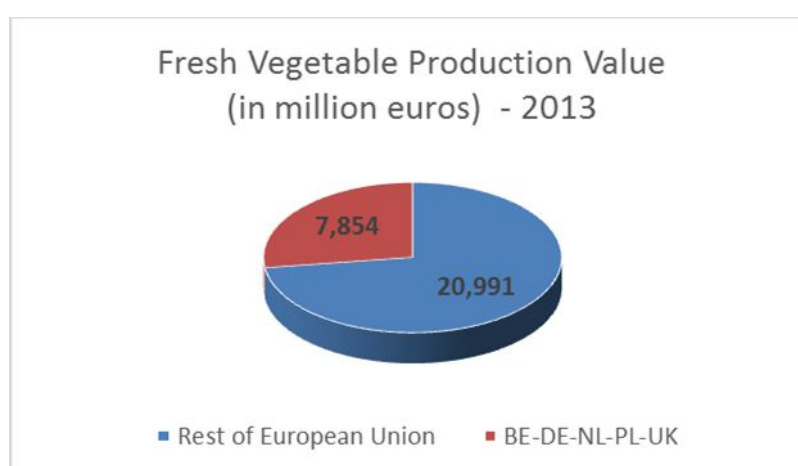


Source: Bijman, 2012.

2.2. Production in Selected Northern Member States

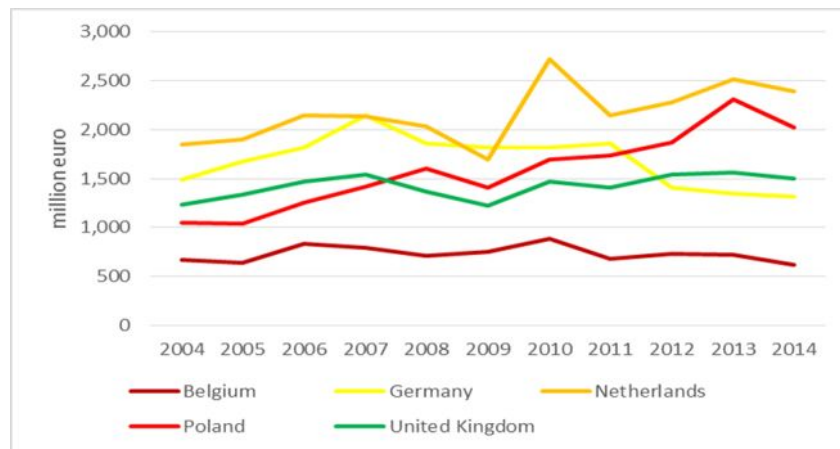
Poland, Germany, The Netherlands, Belgium and the United Kingdom (UK) are the largest producing countries of F&V in the Northern part of the EU. These selected Member States together account for 27.2% of the total fresh vegetables production value of the EU in 2013 (Figure 2). The countries that contribute the most to this value are Poland and the Netherlands (both with EUR 1.8 billion out a total of EUR 27 billion for the EU as a whole).

Figure 2. Contribution of the production value of fresh vegetables of Poland, United Kingdom, Germany, The Netherlands and Belgium (2013)



Source: Economic Accounts of Agriculture, (aact_eaa01). Eurostat.

Figure 3. Trend in output vegetable sector in Belgium, Germany, Netherlands, Poland and United Kingdom (2004-2014)



Source: Economic Accounts of Agriculture, (aact_eaa01). Eurostat.

The main vegetables produced (in weight) by the UK, The Netherlands, Poland, Germany and Belgium are i) tomatoes, ii) cucumber, iii) red peppers, iv) carrots and v) onions. The main fruits are apples and pears. Table 1 shows the relative importance of each of these five countries in the total EU production of the five vegetable and two fruit crops. Belgium and The Netherlands account for 25% of EU production of pears. NL is the largest producer of onions in the EU. Poland is the largest single producer of apples and carrots.

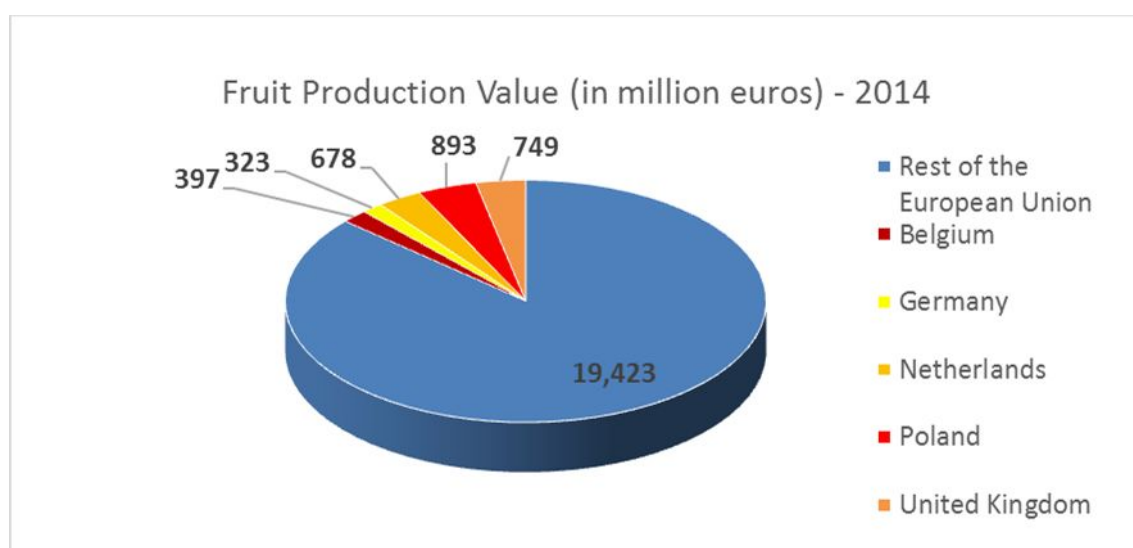
Table 1. Country shares in the total EU production of the five main vegetables and two main fruit products (in tons, 2013)

	Vegetables					Fruits	
	Carrots	Onions	Tomatoes	Cucumber	Red Pepper	Apple	Pear
Country	%	%	%	%	%	%	%
Belgium	6,2	1,4	1,7	0,8	1,0	1,9	12,0
Germany	11,3	8,6	0,5	2,7	0,3	6,7	1,6
Netherlands	10,8	22,9	5,7	18,9	13,6	2,6	12,9
Poland	14,2	9,4	5,1	8,6	4,4	25,6	2,9
UK	13,5	6,2	No data	No data	No data	3,3	1,3
Sub-total	56,0	48,4	13,0	28,3	19,3	40,2	30,7
Rest of EU	44,0	51,6	87,0	71,7	80,7	59,8	69,3
Total	100%	100%	100%	100%	100%	100%	100%

Source: Own elaboration on the basis of Eurostat data (t_apro).

In the fruit sector, the contribution to the total EU production value of the UK, The Netherlands, Poland, Germany and Belgium accounts for 13,5% (Figure 4). The two main fruits produced in those countries are apple and pear.

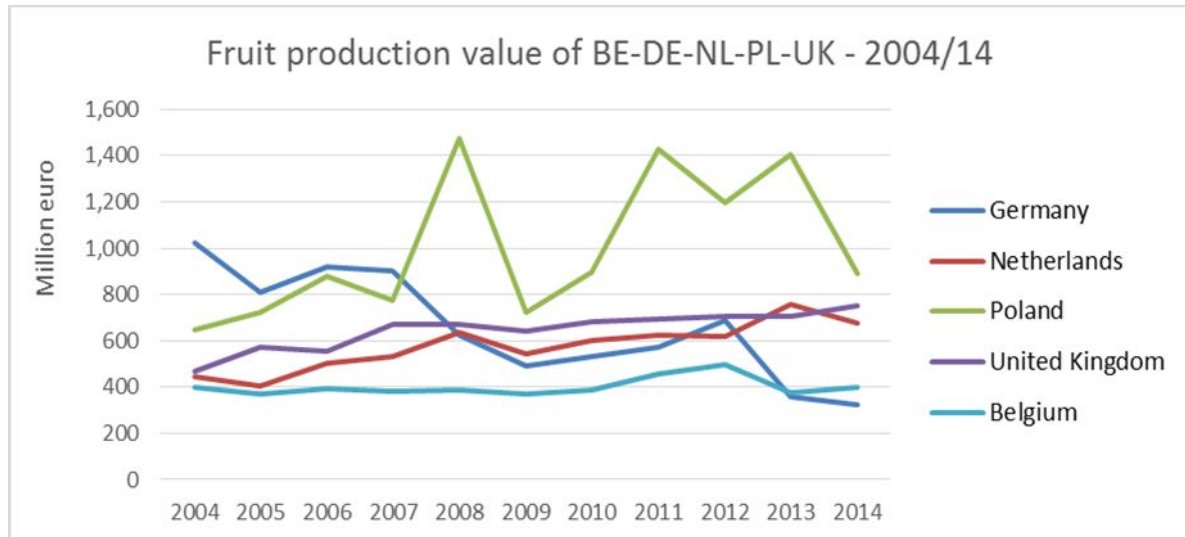
Figure 4. Contribution of the production value of Fruits of Netherlands, Poland, United Kingdom, Germany, and Belgium (2014)



Source: Economic Accounts of Agriculture, (aact_eaa01). Eurostat.

Output of fruit in the five selected countries shows some interesting trends (Figure 5). The volatility is largest in Poland; the production is more or less stable in Belgium, while it is increasing in Poland, The Netherlands and the UK. Only in Germany, fruit production has fallen substantially over the last 10 years, from EUR 1026 million in 2004 to EUR 323 million in 2014.

Figure 5. Trend in output fruit sector (production value; 2004-2014)

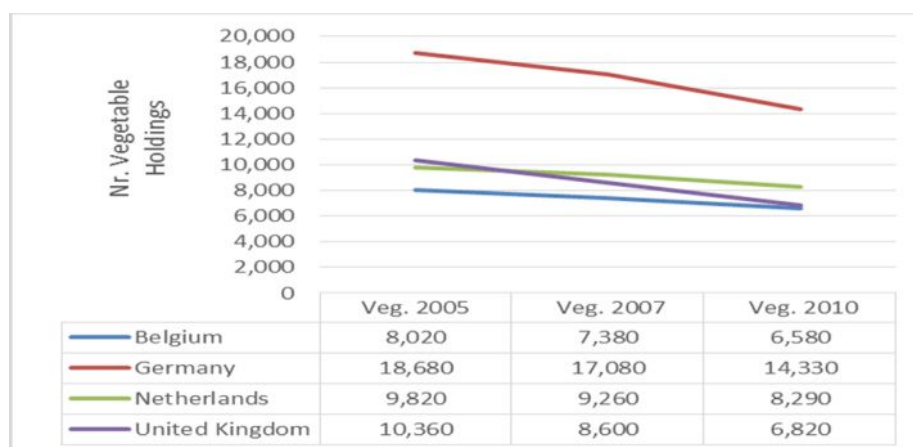


Source: Economic Accounts of Agriculture (aact_eaa01). Eurostat.

2.3. Farm Structure in Selected Northern Member States

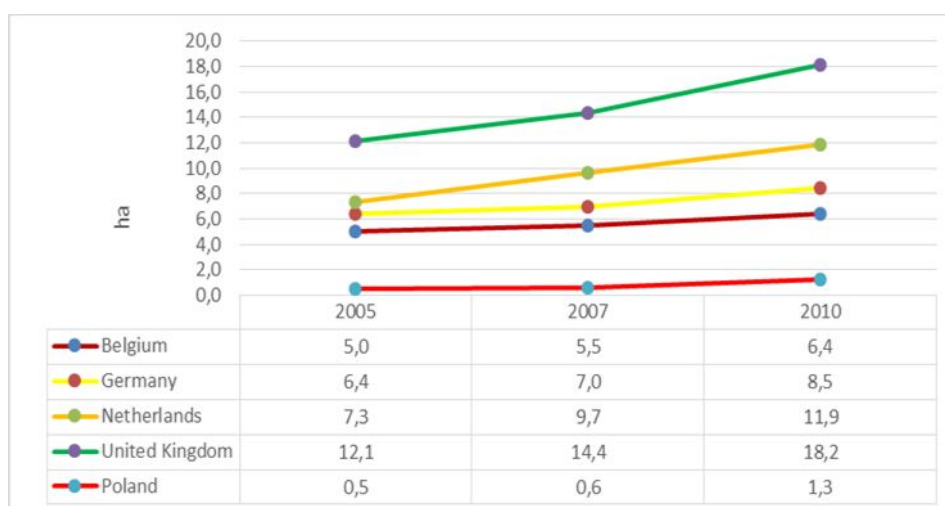
Figures 6 and 7 show the rapid change in the farm structures in F&V in the five Northern EU member states. While the number of farms is continuously decreasing, the average size of the farms is increasing, most rapidly in The Netherlands and the UK. The decrease in the number of farms between 2005 and 2010 was 15% in The Netherlands, 18% in Belgium, 24% in Germany and 34% in the UK.

Figure 6. Evolution of number of vegetables holdings in Belgium, Germany, The Netherlands, and United Kingdom (2005-2010)



Source: Farm Structure survey (ef_oluft), Eurostat.

Figure 7. Evolution of holding size in fresh vegetable sector in Belgium, Germany, the Netherlands, United Kingdom and Poland (2005 – 2010)



Source: Farm Structure survey (ef_oluft), Eurostat.

As an example of very rapid structural changes in vegetables production, Figure 7 shows the evolution in number of farms, size of farms and area of production for greenhouse tomato production in The Netherlands. While the number of tomato growers decreased from more than 600 in the year 2000 to 350 in 2013, the total area of tomato production increased by almost 50% and thus the average size of the farm increased from 2 hectare to 5.5 hectare.

Figure 8. Evolution of the number of farms and size of the farms (in ha), tomatoes, The Netherlands (2000-2013)

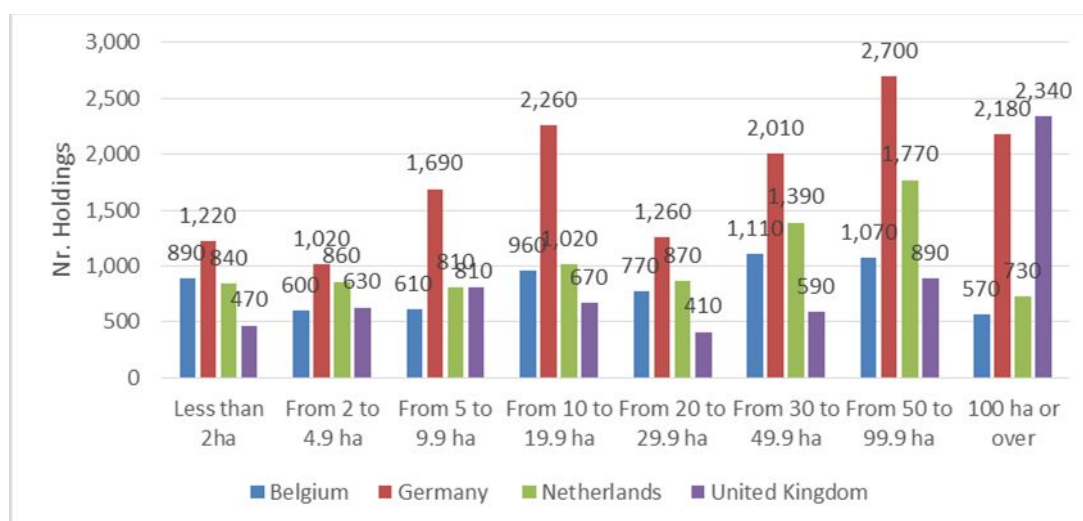


Source: CBS/Landbouwtelling.

While there is a clear trend towards increasing average farm size, the distribution over different farm size classes differs among the five countries. This can be explained by the type of product, the history of farm structures and the agro-ecological conditions (e.g. flat or hilly landscapes). Figure 9 shows the number of vegetable farms in specific size classes. In Belgium, the farms are relatively evenly distributed over the different size classes, although most of farms can be found in the size class from 30 to 50 hectares. Germany has two size classes that stand out: from 10 to 20 and from 50 to 100 hectares. In The Netherlands, the size class with the largest number of farms is 50 to 100 hectares, but all other classes have, like in Belgium, a substantial number of farms. In contrast, in the United Kingdom, the size class with the largest number of farms is by far the class 100 or over hectare.

An important distinction between Belgium and The Netherlands on the one hand and Germany and the UK on the other hand are the number of greenhouse farms in the first two countries. These farms are much smaller, in area, than the open field vegetable farms. This explains the relative even distribution of farms over different size classes in Belgium and The Netherlands. Farms in the UK have traditionally been much larger than farms on the Continent. The figures for Germany show regional differences, with large and very large farms in the North and the East, and much smaller farms in the South.

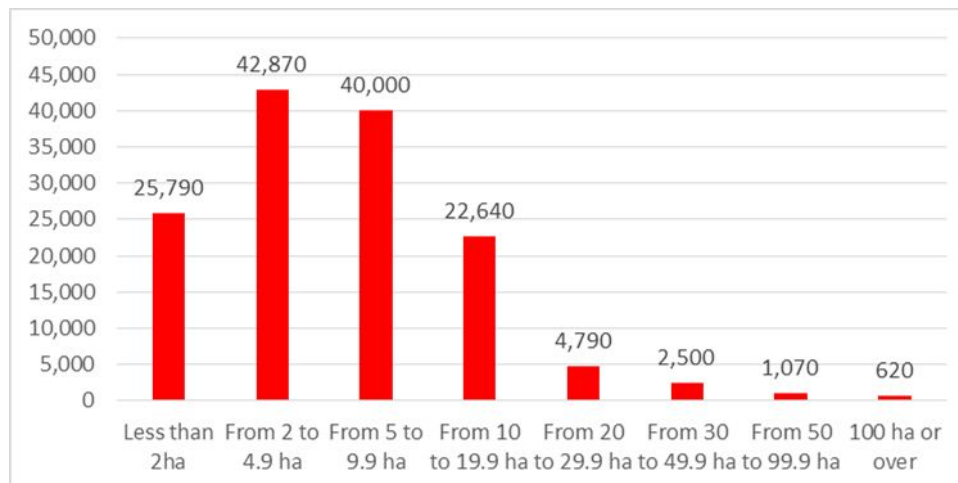
Figure 9. Distribution of vegetable farms per size class (2010)



Source: Farm Structure survey (ef_oluaareg), Eurostat.

The situation in Poland is quite different, as the number of farms is much higher but the average size is much smaller compared to the other four countries. For this reason we present a separate figure for Poland (Figure 10).

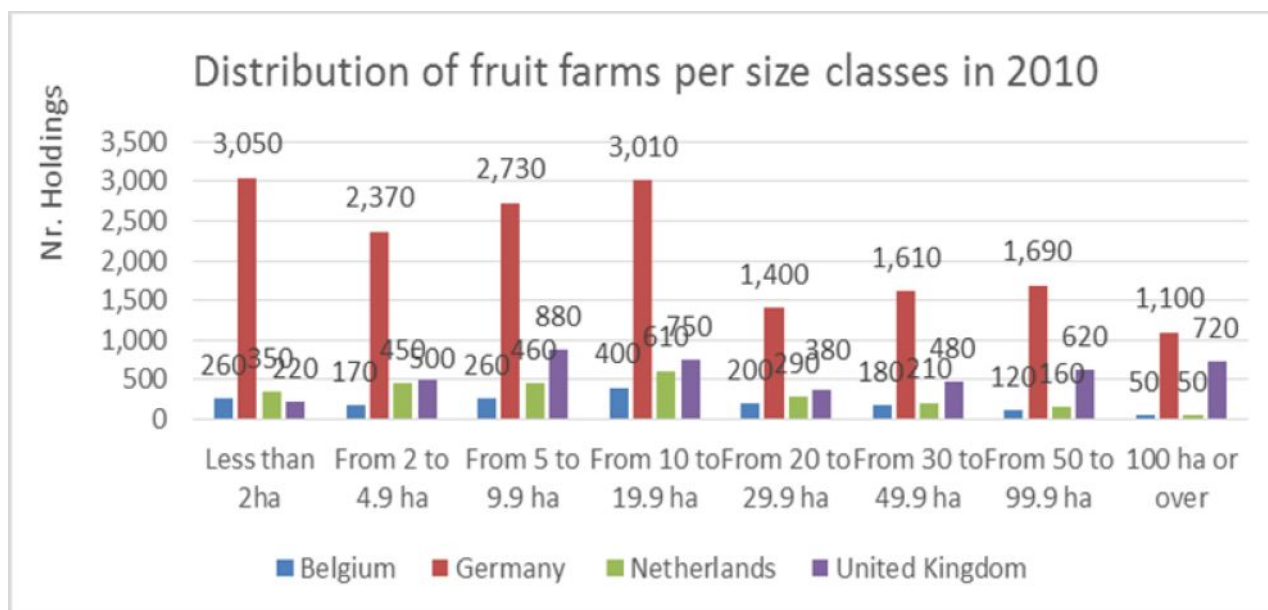
Figure 10. Number of vegetable farms per size class in Poland (2010)



Source: Farm Structure survey (ef_oluaareg), Eurostat.

Figure 11 shows the number of fruit farms, distributed over different size classes. Germany not only has the largest number of fruit farms, also most of these farms fall in the small size classes. Particularly the large number of farms smaller than 2 hectare is notable. Most of these farms are not specialized farms, as they combine different farming activities, or farmers combine farming activities with off-farm sources of income. The latter may explain why the decrease in number of vegetables farms is larger than the decrease in number of fruit farms.

Figure 11. Distribution of fruit farms over size classes (2010)



Source: Farm Structure survey (ef_oluaareg), Eurostat.

The size of holdings may be related to membership of POs. Farms in the smallest size groups are often part-time farms or diversified farms. As these farms are less dependent on the particular fruit or vegetables crop for their total income, the rate of organisation into POs is lower. For these small farms, the certainty that the PO will always find a market for the farmers' products is less important. Small farms or farms with small area of F&V are more likely to sell through local traders.

This also implies that when farms become larger and more specialized, they are more likely to be member of a PO. An additional argument for farms to become member a PO is their vulnerability. Specialized farms are more vulnerable to market crises than non-specialized farms. This also induces PO membership. Finally, when farms become large enough to sign individual contracts with traders, retailers or processors, they may step out of the PO as they do not need the group any more for strengthening their market position. Also when individual farms are much larger than the average farm in the PO, the large farm may step out of the PO as its interests are no longer in line with those of the majority of the PO members. This latter process has taken place in The Netherlands, where a number of very large greenhouse farms left the PO.

3. AGRICULTURAL COOPERATIVES IN THE EU

KEY FINDINGS

- The relative importance and the historical development of agricultural marketing cooperatives differ greatly across sectors and Member States.
- There is a continuous process of merging small cooperatives into larger ones, in order to increase bargaining power and benefit from economies of scale.
- Cooperatives can be divided into two types: those that only bargain and those that also handle and process the product.
- Cooperatives seek to combine vertical integration in supply chains with horizontal coordination among farmers.
- Over time, cooperatives are faced with the dilemma how to combine individual with collective entrepreneurship.
- Few cooperatives have members in two or more MS; cultural and economic obstacles limit further transnationalization.
- Cooperatives operate better in high-trust societies.
- The quality of the leadership (board and managers) is crucial for the performance of the cooperative.
- In large cooperatives, there is shift of control from members to managers.
- The role of legislation and policies in promoting cooperatives is limited; flexibility of legislation is the most important enabling factor.

3.1. Introduction

POs are an expression of economic cooperation among producers. The classical form of farmer economic collaboration is the cooperative. A cooperative is a special legal entity, characterized by member-ownership and democratic control. Although all cooperatives have these basic characteristics, cooperative legislation differs across Member States (Van der Sangen, 2012). Some MS do not have a specific cooperative legislation. For instance, in the UK and Denmark cooperatives are legal entities under generic business organisation law. Countries with a federal structure often have regional legislation on cooperatives.

Differences in legislation may lead to differences in structure, objectives and performance. Such differences relate to fiscal treatment, minimum number of members, internal governance rules, the type of accountancy reporting, the compulsory embeddedness in the region, and the extent of flexibility to regulate internal governance and procedures in organisation-specific bylaws.

Also the extent of state support for cooperatives differs substantially across MS, with some countries having extensive public expertise centres and cooperative education centres,

while other countries have no public support at all. In some countries, cooperatives are obliged to be member of a regional expertise centre or audit centre, which is funded by all cooperatives in that region together.

In the recent Support for Farmers' Cooperatives project (Bijman et al., 2012a) it was concluded that the market shares of cooperatives have increased for most MS over the period 2000 – 2010. Several explanations can be given for this growth in market shares of cooperatives. First, non-cooperative companies have left the sector because of low margins. This can be taken as a signal of the competitive strength of cooperatives, which, through the yardstick effect, push non-cooperatives to pay higher prices for farm products. Clear evidence of this yardstick effect was found for the European dairy industry (Hanisch et al., 2013). For other sectors a lack data prevented a similar analysis. Second, cooperatives have become more efficient due to increasing their scale of operations through mergers. Mergers among cooperatives usually do not require substantial additional investments by the merger partners, thereby preventing financial capital from leaving the sector.

Several factors influence the position and development of marketing cooperatives (Bijman et al., 2012a). Here we will discuss the main trends among cooperatives in EU agriculture. These trends may also provide better understanding of the organisation rate in the F&V sector of the different MS.

- Major differences between countries and sectors.
- Strong concentration processes.
- Cooperatives versus bargaining associations.
- Transnationalization of cooperatives.
- Individual versus collective entrepreneurship.
- Cooperatives and trust.
- Cooperatives and supply chain management.
- The quality of the leadership (board and management).
- The role of enabling legislation.

3.2. Major differences in share of products sold through cooperatives

The share of cooperatives in the total sales of farm products differs substantially across EU countries (Figure 12). On average the cooperative market share is higher in Northern Member States (particularly Finland, Netherlands, Denmark, Sweden and Ireland) compared to Southern Member States (particularly Greece, Italy, and Portugal). Then there is a group of countries with middle-range market shares (France, Germany, Belgium, Spain), and a group of new Member States with low market shares, particularly countries in Central and Eastern Europe.

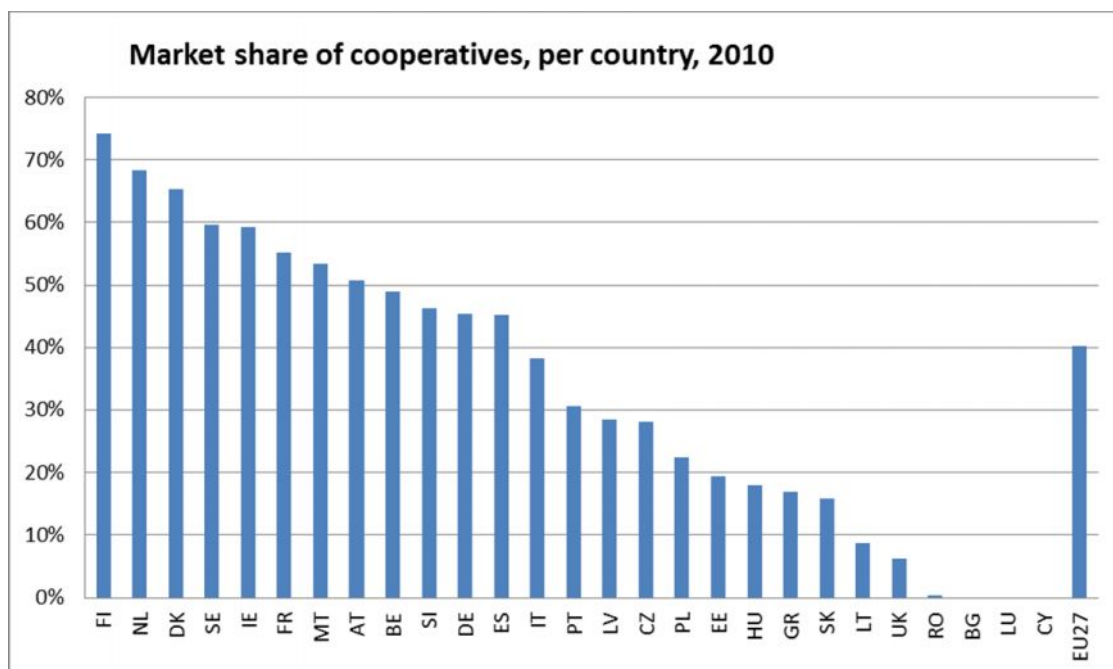
As dairy is the most cooperatively organised sector in Europe, countries with a large dairy sector are more likely to have a large market share for cooperatives. This can be seen in Northern Member States like Ireland, Denmark, Finland, Germany, and The Netherlands. Also history counts: most of these countries have a long history of cooperatives, going back to the mid-nineteenth century when in several countries cooperative legislation was

enacted and technological developments made joint processing more attractive compared to processing on the individual farm (Fernández, 2013). Still, even in major dairy producing countries, the market share of cooperatives differs. It is high in for instance Denmark and Austria, and much lower in Germany and France.

Propositions about POs

- Because POs in F&V are either legal cooperatives or business structures with the core characteristics of cooperatives (i.e., member ownership and democratic control), major trends among cooperatives may also apply to POs.
- Just like the market share of cooperatives differs across Member States, the role and position of POs is likely to differ.
- Countries without a cooperative tradition are less likely to set up POs.

Figure 12. Market shares of all agricultural marketing cooperatives per MS (2010)



Source: Bijman et al., 2012.

3.3. Strong concentration process through mergers

Cooperatives have a long tradition of merging into larger units. Most cooperatives started long ago as community organisations at the level of the village. Over time, they have merged with cooperatives from other villages into regional cooperatives. A next step in this process has been the merger into a cooperative working on a national scale. Technological development, such as in communication, processing and transport, have made these mergers possible and also necessary in the competition with other companies.

Another example of this concentration process is the shift of commercial activities from local primary cooperatives to regional federated cooperatives. Federated cooperatives can be found in every member state and almost every sector of agriculture. They provide

important services to their member cooperatives. The main advantages for local cooperatives are the economies of scale that can be gained.

Over time a more explicit division of labour will develop between federated cooperative and member cooperatives. A final stage of this development could be the termination of the local cooperatives, when all activities have been centralized in the federated cooperative, or when all local cooperatives are merged and this new large cooperative acquires all activities and assets of the federated cooperative. Such structural change is not only a matter of growth to exploit economies of scale, but also a matter of change in the distribution of inter-organisational power. Soegaard's (1994) suggests that there is a strong tendency for the balance of power in federative organisations to tilt in favour of the initially strongest member(s) of the organisation. These strongest members will eventually use their power to force a restructuring towards a unitary organisation. In several of the Northern Member States, like Denmark and The Netherlands, federated cooperatives have almost disappeared in agriculture.

Propositions about POs

- POs will grow over time, either organically, or by merging into larger units, in order to benefit from economies of scale and scope.
- POs will set up federated structures, such as Associations of Producer Organisations (APOs).
- APOs are more likely to be set up in countries with a good experience with federated cooperatives.

3.4. Bargaining cooperatives and handling cooperatives

A basic function of any marketing cooperative is negotiating with customers, over prices and delivery conditions. However, within the family of cooperatives, two type should be distinguished: bargaining cooperatives (or bargaining associations) and handling and processing cooperatives. While this distinction is not clear-cut in practice, it is good to acknowledge that some cooperatives only negotiate with a buyer, while other cooperatives do all kinds of handling activities with the members' product. While the handling cooperative is much more like a firm, with assets and investments, the bargaining cooperative is often an association with limited activities and assets on its own.

Although the core purpose of a bargaining cooperative is to obtain better prices and delivery conditions for its members, these organisations also facilitate efficient coordination of transactions between farmers and processors, by providing (or organising the provision) of services to its members like technical assistance, input supply, quality control, information exchange and arranging harvest and transport support (Bogetoft and Olesen, 2004). Over time, the core functions of the bargaining cooperative may be extended from only bargaining towards bargaining and value chain coordination.

Traditionally, most of the bargaining cooperatives can be found in the F&V (particularly products for the processing industry) and the dairy sector, although they also exist in sugar and other crops that go into large-scale processing (Hueth and Marcoul, 2007).

Propositions for POs

- POs have to make a strategic choice whether they want to be bargaining cooperatives, focussing on the bargaining and sales process, or handling cooperatives with multiple economic activities and large asset holding. The latter involves substantial (member) investments in the PO.

3.5. Transnationalization of Cooperatives

Agricultural cooperatives in Europe are increasingly expanding beyond their home countries. A number of these cooperatives have become transnational cooperatives, which means that they have members in more than one country. However, transnationalization of agricultural cooperatives in Europe is limited to a small number of countries and just a few sectors. Most of the transnational cooperatives can be found in Belgium, The Netherlands, Germany, Ireland and Denmark, while dairy and F&V are the most important sectors. Bijman et al. (2012b) found 46 cases of agricultural cooperatives with members in more than one member state (situation 2010). Out of these 46, almost 1/3 (15 to be specific) were in the F&V industry.

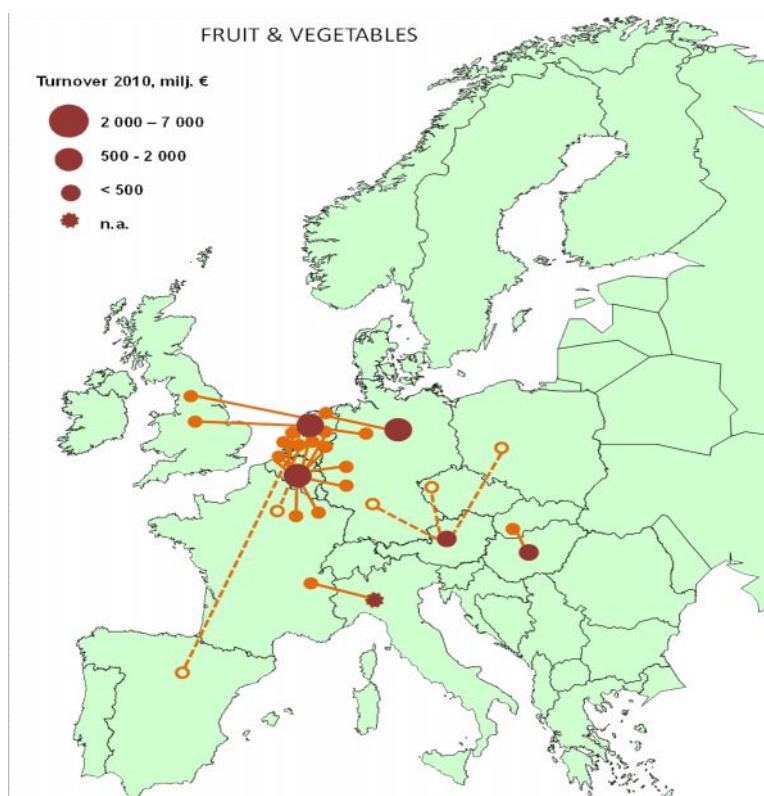
Several trajectories have been followed by cooperatives that have become transnational. (1) Some have invited suppliers from just on the other side of the border to become members; efficiency is the main argument here. (2) Other cooperatives have merged with foreign counterparts. This implies an explicit strategy of growth through internationalization. (3) A third group has acquired assets from foreign cooperatives (without a formal merger) and have then invited the members of the foreign cooperative to become members in the acquiring cooperative. Having close supplier relationships is the dominant argument here, and dairy is the typical sector.

In F&V, we find two models of transnationalization. In the first model farmers from two or more countries set up a new transnational cooperative. Examples of these can be particularly found in Belgium, where growers that produce for the processing industry collaborate in international bargaining cooperatives, such as B.N.D. Internationale Telersvereniging that has members in Netherlands, Belgium and Germany, and Vegras, that has members in Belgium, the Netherlands and France (Bijman and Gijssels, 2012). Under the second model national cooperatives set up an international federated cooperative (thus, the members of the transnational cooperative are local cooperatives, not farmers). An example of such transnational cooperative is the transnational APO European Fruit Cooperation (EFC), with member cooperatives from Belgium, The Netherlands and Germany (Bijman and Saris, 2012).

In 2010, transnational cooperatives in the F&V sector existed only in The Netherlands, Belgium, Germany, Hungary, Italy and Austria (Figure 13). Their position is strong in The Netherlands and Belgium. The five largest F&V cooperatives (all POs) in Belgium and three largest in the Netherlands (all POs) are all transnational cooperatives.

There is a high market integration between the F&V sectors of The Netherlands and Belgium. Distances are short, cultural difference are limited, and language is the same. Dutch growers are member of Belgian cooperative auctions because they favour the auction clock price determination method, which has been abolished in the Netherlands. The Dutch cooperatives have members in other countries either to be able to sell locally produced F&V to local retailers, or to make sure they have sufficient supply year-round.

Figure 13. Transnational cooperatives in F&V sector - mother countries and host countries



Source: Bijman et al., 2012b.

Note: the solid line refer to the countries where there are member suppliers, the dotted line refers to countries where there are farmer suppliers but not members; the size of the "balls" represent the total turnover (in this sector) of the transnational in its mother country.

Transnationalization of cooperatives continues to meet many obstacles. Not only differences in language, legal systems and culture of collaboration may restrain cooperatives from obtaining foreign members, also current members seem reluctant to let their cooperative turn into a transnational cooperative. Having foreign members increases the heterogeneity of the membership, thus increases decision-making costs and leads to a potential dilution of both decision rights and income rights. Reluctant members find managers on their hand, as managers prefer to manage the foreign subsidiary as a profit centre instead of having to deal with foreign members. Thus, we expect that the international growth of agricultural cooperatives will be mainly in the form of international cooperatives and not transnational cooperatives.

Propositions for POs

- The growth of transnational PO will be limited. Transnational POs face the same problems as other transnational cooperatives.
- Transnational POs face an additional constraint, as national authorities may be reluctant to take upon them all tasks and risks related to recognition, administration and audit (see Chapter 5)

3.6. Individual versus Collective Entrepreneurship

Growers of F&V are entrepreneurs; their farm is their business. Growers have individual ambitions for the development of their farms. For some farmers, this development implies close collaboration with other, mostly similar, farmers. Others, however, rather do everything individually. Some growers like to do business within a cooperative, others like to transact with private buyers (or intermediaries).

Within the F&V sector, a large number of traders are still active. Even in The Netherlands, with its large-scale farms, small number of POs and large share (>80%) that supermarkets have in consumer purchases of F&V, more than 400 traders are active on the domestic F&V market.

Collaborating in collective organisations like cooperatives and POs requires the delegation of decision rights from the individual farmer to the board and management of the collective organisation. This requires trust of the farmer in his/her fellow-members as well as in the managers of the cooperative (see section 3.7). It also has implications for the development of the individual farm. Not all farmers are willing to delegate these decision rights, even when there seem to be clear advantages.

Moreover, the working of the competitive yardstick makes it difficult for farmers to see the benefit of membership, particularly in situations where cooperatives have large market shares. The competitive yardstick effect means that the benefits of the cooperatives spill-over to farmers that are not member of cooperatives. These positive spill-overs have always been a reason for state support for cooperatives.

Implications for POs

- Not all farmers are interested in marketing their products collectively.
- In the F&V sector, multiple channels exist for selling products.
- The larger and more specialized the farm, the more critical the farmer is towards the PO.
- Also non-member farmers benefit from the presence of POs, through the competitive yardstick effect.

3.7. Cooperation and Trust

Collaboration of independent farmers in a joint organisation like a PO is all about trust. From the literature on social capital, we know that trust is both a condition for (Uslaner, 2008) and a consequence of (Chloupkova et al., 2003; Coleman, 1988; Fukuyama, 2000; Putnam, 1993, 2000) cooperation and involvement in networks.

Three different but related types of trust should be distinguished here. One is the trust of an individual member in the other members. As collaboration requires investment in the collaborative venture, in time, effort and money, each member needs to trust that the other member will not take advantage of that investment. In other words, each member needs to trust that the other members will not free ride.

The second type of trust is of the members in the skills and knowledge of the leadership. If the PO is meant to develop and execute a marketing programme, the leadership needs to have marketing skills and knowledge. If the PO is to negotiate with (large) retailers about a

contract, the leadership (or management) needs to have the skills and expertise to get the best out of this negotiation process.

The third type of trust is often called institution trust. Trust in (political) institutions such as parliament and civil service, is said to be not only of major importance for the stability of societies and for the functioning of democracy, but also for people's willingness to cooperate in achieving collective goals and finance public goods (Meikle-Yaw, 2006). A high level of trust in political institutions also facilitates social and economic exchange and reduces transaction costs in markets. Trust is said to reduce the need for control and supervision, which saves money for government as well as for firms and other actors in the private sector (Listhaugh and Ringdal, 2007). For our purposes, trust in institutions relates to the working of the institutions that affect the efficacy of the POs. Such institutions include policies that set rules for the behaviour of the POs (such as the CMO for F&V rules, or competition rules), and the monitoring and auditing agencies that check and sanction abuse of rules and regulations.

For collaboration in POs to be successful, all three types of trust need to exist. If one type is missing, collaboration may not start or, in the case some collaboration already existed, may deteriorate. Low trust in institutions may actually reduce trust in co-members and low trust in leadership, because working together in an uncertain environment entails higher risk, as one will never know how the other will respond to changes in the environment.

The situation in the New Member States, particularly those that have been under communist rule for several decades, has been one of low trust, particularly low trust in institutions. This can explain the low level of organisation of farmers into cooperatives and other types of economic collective action organisations in post-socialist countries (Lissowska, 2012; Gijssels and Bussels, 2014; Hagedorn, 2014). General trust (i.e. trust in other people) is lower in New Member States compared to other Member States.

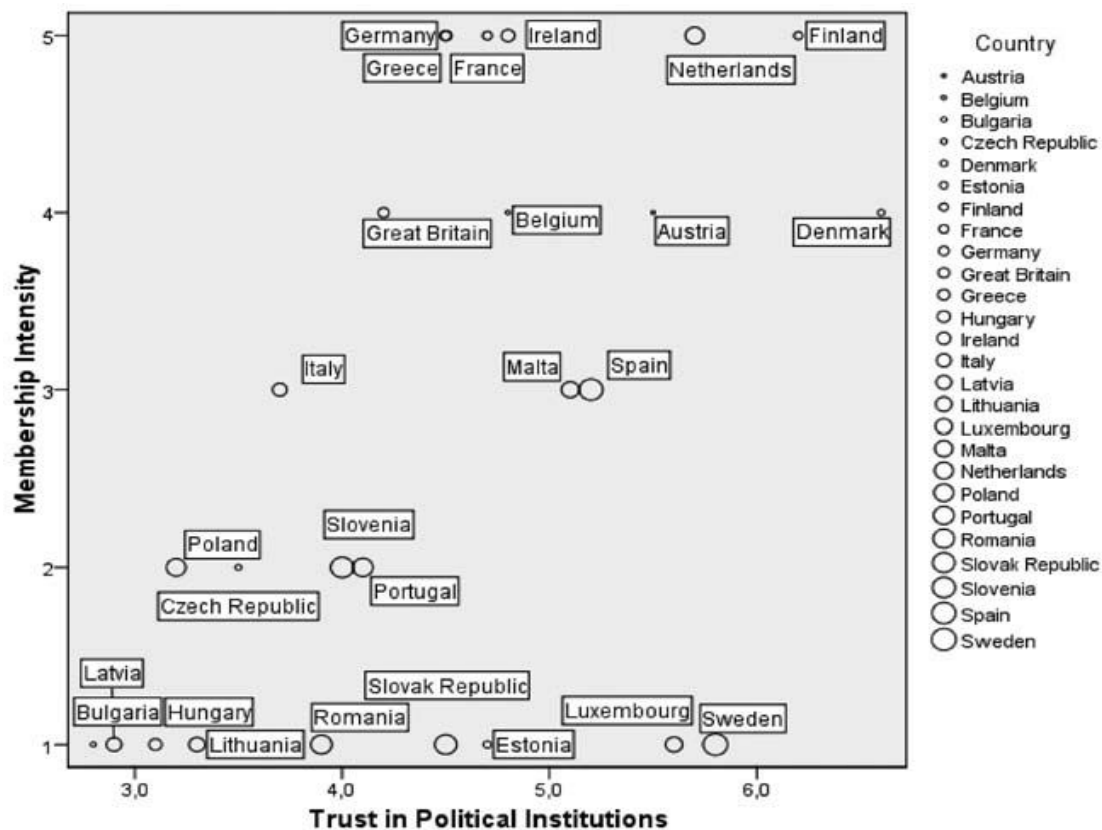
Also trust in institutions differs substantially across regions in Europe. Trust in institutions – or trust in political institutions as it is operationalized here – is clearly different in new member states compared to other member states, as illustrated by Figure 14. Data on trust in political institutions (national average) has been gathered from the Second European Quality of Life Survey (European Foundation, 2009). Member intensity is a constructed score, on a scale of one to five, of how “cooperative” a particular country is.²

Propositions for POs

- Large differences in trust (particularly trust in institutions) can explain the low level of willingness of growers to organize themselves in cooperatives and POs.
- The large differences in culture and trust, across Member States, influences the effectiveness of the CMO F&V in organising growers into POs.

² See Gijssels and Bussels (2012) for more detail on this member intensity score.

Figure 14. Trust in Political Institutions and Membership Intensity in different Member States



Source: Gijssels and Bussels, 2014.

3.8. Cooperatives and Supply Chain Integration

The development of cooperatives and POs in the European F&V industry can be characterized by two interlinked themes. One theme is the development towards more coordinated supply chain partnerships (often named 'vertical integration'). While the major retailers determine the supply chain requirements (such as quality standards, delivery schemes, and type of packaging and labelling), wholesalers in their role of preferred suppliers are increasingly becoming the chain coordinators. In some countries these wholesalers are cooperatives, but often they are non-cooperative companies. Growers, alone or as a group, have no choice but to engage in these vertical coordination supply chain partnerships.

The other theme is the need for growers to strengthen horizontal collaboration, not only to increase their bargaining power, but also to gain operational efficiencies. The EU policy on POs is supporting this collaboration. There continues to be rather large differences among the EU Member States in the extent to which farmers have embraced the EU support scheme. In countries with a strong tradition of cooperatives in the F&V industry both existing and new cooperatives have become approved POs. Overall, the EU policy seem to have encouraged growers to enhance their collaboration and for collaborative groups to strengthen their market and customer orientation, as well as their overall sustainability.

Propositions for POs

- Vertical integration in the supply chain requires an active role of POs.
- Vertical integration implies delegating a share of decision rights to the chain captain.

3.9. Leadership in cooperatives

As to the leadership and internal governance of cooperatives, two issues are at stake. First, among large cooperatives in Europe internal governance is changing towards more complex organisational structures and a dominance of professional managers (Bijman et al., 2014). As to the organisation structure, we see (1) an increasing use of subsidiaries and separate business units; and (2) the legal separation between the cooperative as an association of members and the cooperative as a firm. In other words, the cooperatives is more often a holding organisation for one or more companies.

As to the larger dominance of managers, we see that large cooperatives make a stricter separation between management decisions (by professional managers) and management control (by the Board of Directors and Board of Supervisors, representing the members). This shift of control strengthens the position of the manager, which increases the risk of agency problems, and therefore requires a professionalization of control.

This brings us to the second issue: the quality of the leadership. Cooperatives operating in a competitive market environment need managers and supervisors of the same quality as their competitors. Currently, there are still many cooperative leaders that do not necessarily have the capabilities to run or to control large commercial companies.

One of the results of the Support for Farmers' Cooperatives project was that the quality of the leadership of cooperatives is very diverse across EU Member States and that in some MS low quality hinders further development of the cooperatives (Bijman et al., 2012a). It was recommended that governments at national and EU level develop policies and measures to support capacity building among cooperative leaders and provide technical and organisational support to let the cooperative perform better, especially for small and start-up cooperatives.

Propositions for POs

- POs, like other cooperatives, can be hybrid organisational and legal structures.
- POs need to have a certain scale to be able to hire professional management
- Traditional cooperatives/POs with farmer-managers face the risk of insufficient management quality.
- Support for management and organisational strengthening of POs is needed.

3.10. Enabling legislation

Legislation on cooperatives differs across Member States, with some countries having no or very simple cooperative laws, while other countries with very elaborate regulatory and support measures. A number of countries, more likely to be in the Southern part of the EU, have multiple policies, at national and regional level, to support cooperatives. However, the Support for Farmers' Cooperatives project (Bijman et al., 2012a) could not establish a clear relationship between the extensiveness of the cooperative legislation and the economic

strength of cooperatives, per country. Also in other OECD countries it is hard to find an unambiguous link between legislation and cooperative performance (Iliopoulos, 2013).

Many support measures could potentially benefit cooperatives. Cooperatives particularly benefit from a flexible cooperative law, single taxation, and clearly defined competition rules. The SFC project recommended that governments at the national and EU levels develop policies and measures to support capacity building and technical (organisational) assistance, especially in for small and start-up cooperatives. This is particularly true for the New Member States, where self-organisation is hampered by a lack of social and human capital.

Propositions for POs

- POs will benefit from clear and simple recognition rules.
- POs will benefit from support for capacity building and technical (organisational) assistance.

4. ORGANISATION RATE

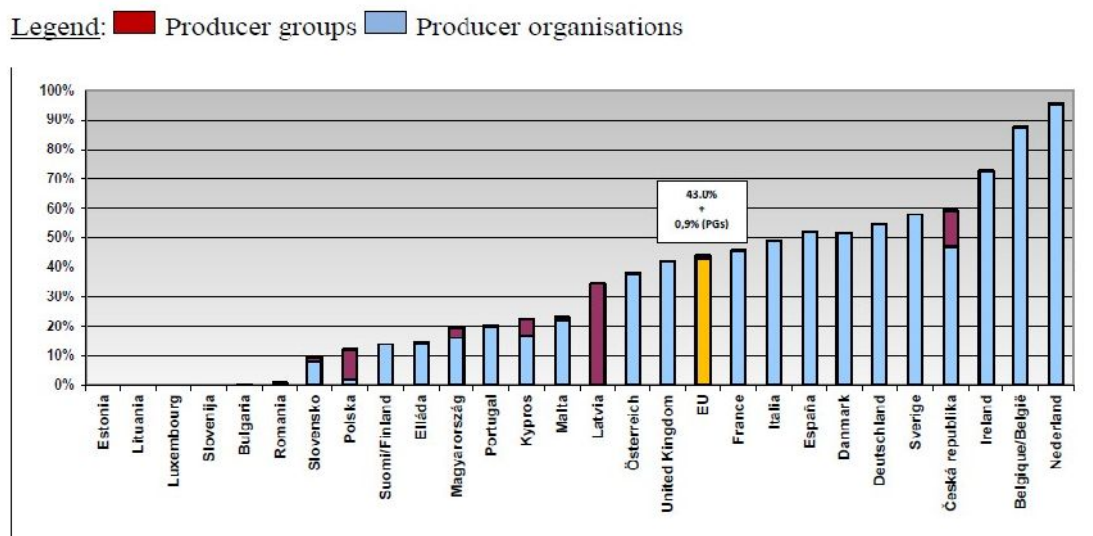
KEY FINDINGS

- The organisation rate (VMP/total value of F&V) in the F&V sector has greatly improved over the period 2004 – 2012.
- Growth can be seen in all regions of the EU.
- The number of APOs has substantially increased, particularly after 2007.
- Comparing F&V organisation rate with market share of all cooperatives shows that for the EU as whole the F&V sector score is slightly higher. For the following countries the organisation rate in F&V is substantially higher: Netherlands, Belgium, Ireland, Germany, Spain, Italy and Czech Republic.

4.1. Organisation rate in POs

One of the main concern of the European Commission is the rate of organisation of farmers and product in POs (including APOs and PGs), particularly in some Member States (European Commission, 2014). In 2010, there were 1599 recognised Producer Organisations (POs) in 23 MS. In 2008-2010, the share of the total value of EU F&V production marketed by POs/Associations of POs (APOs) grew and in 2010, the organisation rate was about 43 % (44% if producer groups are also included), with wide variations observed depending on MS (Figure 15).

Figure 15. Organisation rate by MS in the F&V Sector (2010)



Source: European Commission, 2014.

Organisation rate can be measured using two different indicators. First, the number of farmers that are member of POs as a percentage of total farmers. Second, the value of product marketed through POs (usually indicated by Value Marketed Product – VMP) as a percentage of total production value of F&V.

Table 2 shows that the share of total F&V producers who are member of POs has gone up substantially in the period 2004 – 2010: from 10.4% to 16.5% (row D). This is an increase of 60%. Similarly for the share of total value of F&V production marketed by POs (row G); this has increased from 31% to 43%, an increase of almost 40%. More recent data shows that the share of total value of F&V production marketed by POs has increased to 47% in 2012.³ We can conclude that both the organisation rate (VMP/total value F&V) and the attractiveness of POs have gone up over the last decade.

The Commission also mentioned that APOs have become more attractive, particularly after the 2007 reform. In 2008-2010 there has been a faster rise in the number of APOs, but also a substantial increase in the number and share of POs that are member of APOs (459 and 28.7% respectively, in 2010) (European Commission, 2014).

If we compare the organisation rate in 2004 with that in 2012 (Figure 16), we see a substantial increase for most of the EU Member States. The growth has been particularly strong in Austria, Czech Republic, Italy, Spain, Germany, Portugal, Poland and Hungary. Thus, besides in the countries with already a high organisation rate like Belgium, Ireland and The Netherlands, the growth in organisation rate seem to be throughout the EU.

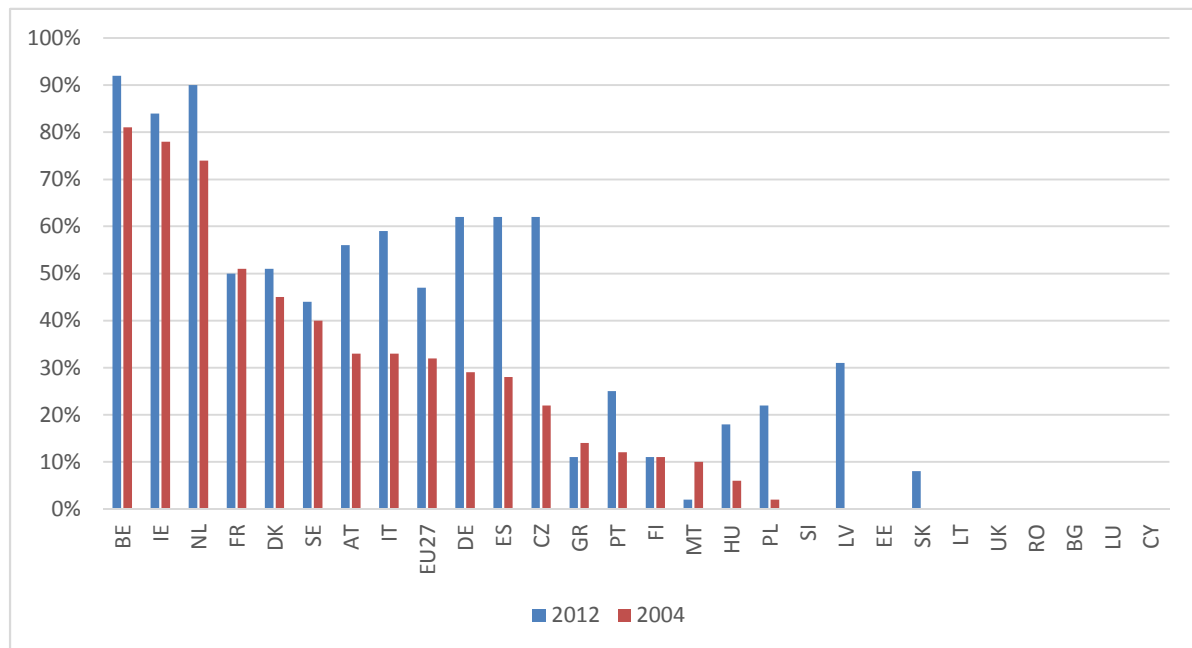
Table 2. Recognised POs and APOs: changes in key parameters (2004-2010)

	2004	2005	2006	2007	2008	2009	2010
Total number of Pos	1,569	1,393	1,432	1,427	1,549	1,638	1,599
Fruit and Vegetables holdings who are members of Pos	397,733	438,456	430,714	454,052	457,833	442,605	411,400
Total number of agricultural holdings with area under Fruit and Vegetable productions	3,841,645	3,591,290	3,470,690	3,350,090	3,063,930	2,777,770	2,491,610
Share of total F&V producers who are members of POs (% of total holdings of F&V)	10.4%	12.2%	12.4%	13.6%	14.9%	15.9%	16.5%
Value of the Fruit and Vegetables products marketed by Pos (million euros)	13,886	14,641	15,486	18,087	19,484	19,503	21,261
Total value of F&V production (million euros)	44,711	45,601	47,013	48,557	50,216	45,625	49,389
Share of the Value of the F&V products marketed by POs (% of total value of F&V production)	31.1%	32.1%	32.9%	37.2%	38.8%	42.7%	43.0%

Source: European Commission, 2014.

³ Based on the slides of the presentation given by Mr. R. van der Stappen, European Commission, DG Agri, at the ICOS2014 conference in Dublin, Ireland, November 2014.

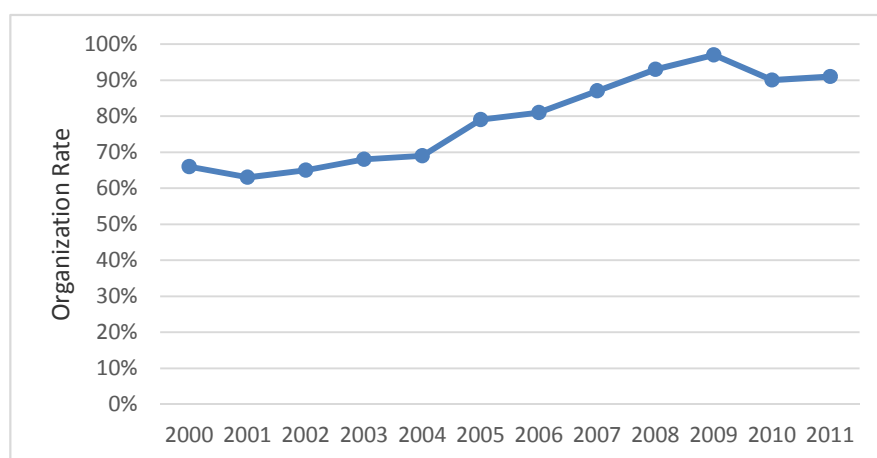
Figure 16. Comparing organisation rates (VMP/total value F&V) 2004 and 2012.



Source: Own elaboration, based on Van der Stappen, 2014.

The percentage of all farmers that are member of a PO may seem rather low. One must realize, however, that a very large group of F&V farmers are not specialized farmers, but either part-time farmers (thus having another source of income) or farmers that have other sources of farm income. These farmers may find membership of a PO too large an investment in time and effort. They may have close collaboration with local traders, or even with neighbouring farmers that take care of selling their products. Even in The Netherlands, with more than 90% share of all F&V products sold through POs (Figure 17), the percentage of PO members on total F&V farmers is only 68%.

Figure 17. Organization rate of F&V production (VMP/total value of F&V production), The Netherlands, 2000-2011



Source: Ministerie van Economische Zaken, Landbouw en Innovatie, 2011; Stokkers et al., 2012.

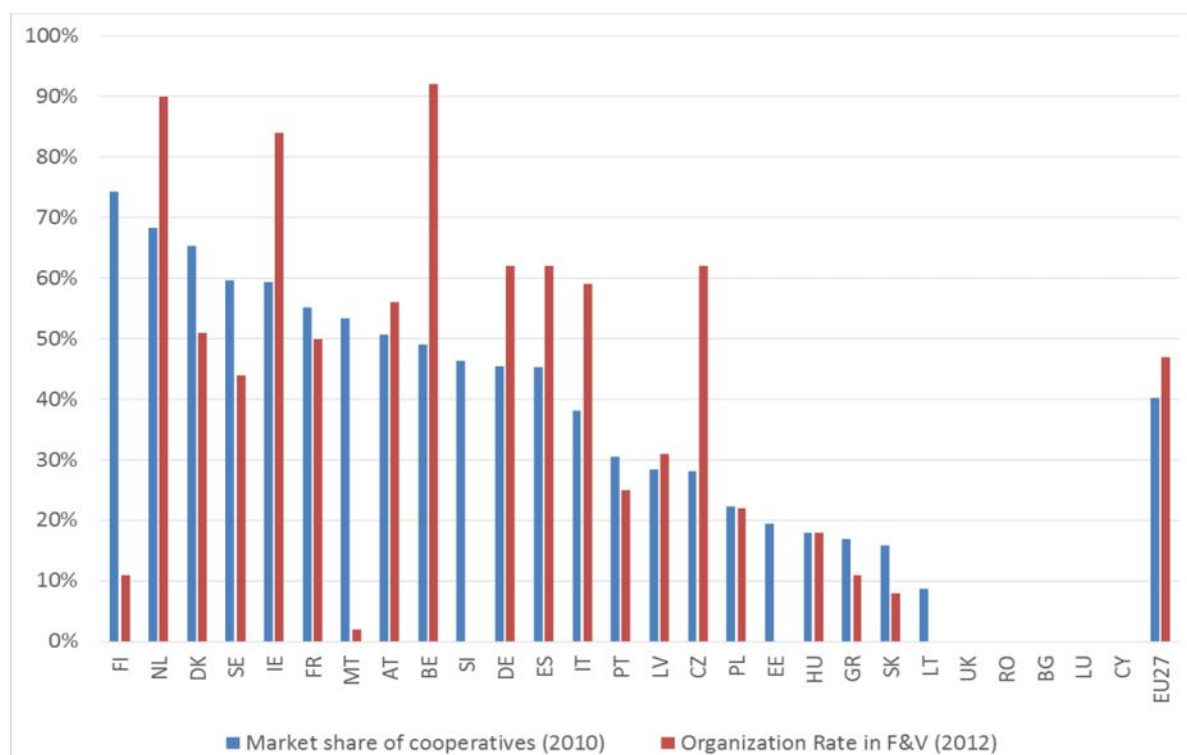
4.2. Organisation Rate: POs versus Cooperatives

An interesting question is whether the organisation rate is related to the position and role of marketing cooperatives in individual Member State. The hypothesis is that the culture and tradition of cooperative membership will influence the willingness of F&V growers to become member of a PO. Chapter 3 has described a number of factors that influence the role and attractiveness of cooperatives, such as trust, tradition, and leadership quality.

We compared for each Member State the organisation rate in POs (measured as VMP/total value F&V) with the country score on the market share of all cooperatives (as taken from the Support for Farmers' Cooperatives project, presented in section 3.2). Figure 18 shows that for the EU as a whole the market share of POs is similar to the market share of all cooperatives (43 and 40 percent respectively). However, large differences exist among countries. Particularly in Nordic countries, the market share of POs is lower than the overall market share of cooperatives. In the following countries the organisation rate in POs is substantially higher than the market share of all cooperatives: Netherlands, Ireland, Belgium, Germany, Spain, Italy and Czech Republic.

Current rates of organisation of farmers in cooperatives are determined by the type of sector and product (perishable versus non-perishable, the history of the country (democratic versus communist), the culture of cooperation (level of trust), and the type of cooperative legislation (enabling or constraining). Given these limiting or enabling factors, it is surprising to see that the rate of organisation of F&V growers into POs has increased rapidly to the current high level. For several countries, given the long term character of this type of institution building, one may expect further increases in organisation rate.

Figure 18. Market share of cooperatives and organization rate of PGs, POs and APOs in the F&V sector



Source: Own elaboration on the basis of Bijman et al., 2012a, and Van der Stappen, 2014.

5. EXPERIENCES WITH THE CURRENT F&V REGIME

KEY FINDINGS

- Legal uncertainty is the most important problem that national authorities and POs experience with the current regulation + audits.
- Strict interpretation of outsourcing rules ignores that POs are companies operating in a dynamic and competitive market environment.
- Transnational POs encounter classical problems of international business. In addition, given the risks and legal uncertainty, MS may become reluctant to recognize transnational POs
- Large uncertainty exists as to what environmental measures are allowed and whether they have any impact.
- POs will increasingly be involved in vertical integration in supply chains, closely coordinating their activities with traders, processors and retailers. This poses challenges for the (interpretation of) outsourcing rules.
- There is a tendency among POs to invest in technical renewal and environmental measures. More investments are needed in marketing, product development, and innovation.
- More guidance is needed on what is and what is not allowed under competition rules, including European harmonization of policies and priorities of national competition authorities.

5.1. Evaluation by the Commission

On the basis of evaluations of the National Strategies and its own experiences, the Commission has drawn several conclusions as to improvements that may be necessary (COM (2014) 112 final).

From the tables that the Commission is presenting in its “Report on the fruit and vegetables regime” one can draw the conclusion that the CMO F&V has been successful in promoting the organisation of growers into POs and in having an increasing share of total F&V production being marketed by the recognised POs. Still, the Commission continues to be critical about the efficacy of the F&V scheme, as it concludes that the organisation rate is persistently low in several MS.

I do not agree with this conclusion. First, even in many Southern and Eastern Member States, the organisation rate has gone up over the past 10 years. Second, one cannot expect that collaboration of F&V growers in POs suddenly starts to grow in countries that lack a tradition of farmer cooperatives and/or that have experienced several decades of state socialism with forced collectivization into joint production or joint marketing organisations. In those countries also the issue of trust is problematic, whether an endemic feature of those societies or caused by those decades of state socialism, while trust is an essential prerequisite in voluntary, democratically governed organisations like POs.

5.2. Legal uncertainty⁴

One of the objectives of the 2007 reform was to make the F&V simpler and to increase flexibility. During the discussions among Member States and the Commission on the Commission Regulation (EC) No 1580/2007 laying down implementing rules, there was an emphasis on flexibility and on creativity to be used by the MS in implementing the Regulation. This flexibility was intended to address the wide variation in market conditions between and within MS.

However, once the Regulation was put in place, the subsequent audits turned out to be very strict. Instead of allowing flexibility and creativity, the situation turned out to be of legal uncertainty. The interpretations by the audit service, for instance on the issue of outsourcing, has contradicted, maybe not with the letter of the Regulation but certainly with the spirit of the Regulation, as understood by the MS discussing the new Regulation in the Management Committee. It seems there are differences of opinion within the Commission (DG Agri), between the policy units on the one hand and the audit service regarding the interpretation of the Regulation.

This problem could have been partly solved by providing more guidance by the Commission. Guidelines from the Commission were incomplete and not detailed. While National Authorities have been reluctant to give producers and POs advice because they did not receive sufficient guidance from the Commission and were afraid to make mistakes (seeking to avoid all political risks). All in all, recent years of implementation of the F&V scheme have been characterized by large legal uncertainty.

This lack of legal certainty pushes the MS to avoid any innovation, to increase controls and administrative burden even more than what is foreseen in the Regulation, to anticipate a restrictive reading which may be done by the audit service in later years.

Legal uncertainty has a large effect on the POs, the growers and also on the organisation rate. When the recognition of a PO is withdrawn, all of the members of the PO will be punished, for instance by having to pay back all investment subsidies. Reclamations may go back several years, as the operational programme run for several years. This has severe financial implication for the PO and indirect for the members of the PO (as owners of the PO, the members have paid the other half of the investments costs). In a sector with low margins and volatile incomes, this risk of having to pay back substantial parts of the investments is a serious risk. In the Netherlands this risk has caused several farmers to step out of the PO.

Several specific problems are at stake here. The first problem is the administrative burden, for National Authorities and for POs. The second problem relates to the recognition and recognition criteria for POs. As the F&V Scheme has to be implemented at the level of the MS, it is the MS that grant recognition. Once a MS has granted recognition and approved a multi-year operational programme and payment of EU support has started, it is rather strange that EU audits conclude that PO actions that have first been approved are now labelled as illegal and funds have to be returned, over all years of the operational programme. Moreover, if auditors cannot find the proper administration of particular measures, it does not necessarily mean that the PO is deliberately cheating. As one observer said: absence of evidence is not evidence of absence.

⁴ This part has been informed by several formal and informal sources, including a presentation by Noreen Cunningham, of Ireland, who was involved in the so-called Newcastle Group, an informal group of mostly Northern Member States that have discussed the problems with the implementation of the F&V Scheme (see: <http://www.gfa.co.at/en/icop/icop-2014/presentations-icop-2014-download.html>).

The third problem relates to the uncertainties in the implementation of environmental actions. A fourth problem is the lack of guidance in the rules regarding transnational organisations. These two problems will be discussed separately below.

Potential solutions

- Simplification, particularly the environmental part of the F&V scheme.
- Reduction of the administrative burden at PO and national level.
- More exchange of information among MS, particularly on best practices.
- More guidance needed from the European Commission.
- More emphasis on standardizing the national control and auditing.

5.3. Outsourcing

One of the key issues where legal uncertainty exists is in outsourcing. Outsourcing means that not all product handling is done by the legal entity of the PO itself. A part or even all of the handling of the produce of the members of the PO is delegated to another legal entity. This legal entity can be partly or wholly owned by the PO.

Outsourcing can be done in two different organisational models. First, outsourcing to a wholly or partly owned subsidiary of the PO. Second, outsourcing, through a commercial contract, to a legal entity in which the PO has no or only a minority share of ownership.

Also, outsourcing can be done at two levels. First, the core activities of the PO can be outsourced. Second, the execution of particular parts of the operational programme can be outsourced. Core activities of the PO are concentration of supply from members and joint sales of this supply; collecting and processing information on the production of the individual members; centralized bookkeeping and invoicing; commercial and financial strategy.

There are two problems with the current rules on outsourcing. First, there is uncertainty as to the type of activities that can be outsourced and the level of control that the POs need to have over such outsourced activities in order to maintain eligibility for recognition and thus EU support.

Second, when a PO has outsourced the handling (such as collecting, storing, packaging, marketing) of its products to another legal entity it needs to have a detailed contract and needs to be able to show that it maintains full control over the commercialisation of the product. The type of evidence the PO has to show requires the PO to have a full administration of the product flows, of the instructions and direction given to the managers at the other legal entity, and of ability and actual execution of supervision and control over the management. This all implies substantial administration as well as codifying communication that is normally done in informal consultations, all leading to inefficiencies and extra costs.

The rules seem to be based on a simplistic model of a PO as a business. A PO, often in the legal form of a cooperative, is a business. And businesses, particularly large ones, are often combinations of legal entities. Large POs are often holding companies that are full or majority owners of several subsidiaries who are all separate legal entities. Reasons for complex corporate structures with business activities in separate legal entities lie in the need to reduce risks, to benefit from particular fiscal legislation, and to promote entrepreneurship within separate business units (Bijman et al., 2014). As business

organisation laws and cooperative legislation differs across EU Member States, the incidence of complex cooperative structure also differs across Europe.

There is a general trend among cooperatives to become more complex business structures (Bijman et al., 2012a). This trend may be more advanced in Northern European countries, mainly because cooperatives are larger in those countries, but it can also be found in Southern European countries. Still, it is a development that will be seen all over Europe in the coming decades, as it is a normal development among companies that follow strategies of growth, internationalisation and diversification. Such strategies are commonly accompanied by more complex business structures, which seek to reduce the risks (also for the grower-owners) and to increase responsiveness to market changes.

The key problems partly lie in the strict rules for outsourcing, partly in the interpretation of outsourcing by the audit service. As to the rules: the PO remains responsible for outsourced activities, supervision and management control; the PO issues binding instructions, including a termination clause; and the PO needs to show genuine control, through terms and conditions, reporting obligations and deadlines. This is all rather cumbersome. As to the audits: in some cases auditors have questioned the democratic control of farmers over the marketing of their product when key activities were outsourced.

Potential solutions

When commercialization of the produce of the members is carried out by a legal entity that is a majority owned subsidiary, it should not be considered outsourcing. The threshold for majority ownership could be set at 75%. The other 25% could be owned by the buying firm or by institutional investors. Such joint venture allows the type of vertical integration that is beneficial for all participants in the particular supply chain.

Other solutions should come from a better understanding of the different types of cooperatives (and thus POs). As was explained in section 3.4, in most agricultural sectors, two types of cooperatives can be distinguished. One type of POs include mainly bargaining cooperatives. Their main purpose is to do contract negotiations with a particular customer (a trading, processing or retail company). This type of bargaining cooperative has existed for a long time in agriculture. In the F&V sector, many of the new POs are of this type. The other type of POs are the ones that do the handling and commercialisation of the products themselves. As commercialisation involves substantial investments, in the early years of the CMO F&V scheme most of the POs were existing marketing cooperatives that had obtained PO recognition.

Historically, these two types of cooperatives can be seen as phases in the development of cooperatives. Often, a cooperative starts as a bargaining cooperative and, over time, gains more and more economic activities (and assets) to become a marketing cooperative itself. This perspective of a life cycle in farmer economic collective action should be acknowledged.

Currently, after more than 15 years of EU support, many bargaining POs have developed into full service marketing POs. Still, a substantial part of the POs continues to be mainly bargaining associations, particularly new POs, POs in new member states, and POs that sell to the processing industry.

5.4. Transnational POs

As section 3.5. has explained, transnational POs are like transnational cooperatives, with members (either individual growers or POs) in two or more member states. Despite the large market shares of cooperatives in most of the agricultural sectors of the EU, there are

relatively few transnational cooperatives and few transnational POs. Main reasons for this low number are the cultural and language differences, legal differences, lack of incentives for incumbent members to let foreign members become co-owners, and the reluctance of managers seek transnationalization. These are typical problems for cooperatives and cooperative-like organisations (such as POs) because of their farmer-ownership and democratic control characteristics.

In the F&V industry, Bijman et al. (2012b) found only 15 transnational cooperatives (all recognised POs under the F&V regime). Although more transnational POs may be established, it is not realistic to expect a large increase in this number, despite support under the CMO F&V regime.

Limitations in the further growth in the number of transnational POs are also related to the national recognition requirement and the legal uncertainty discussed above. Because transnational POs need to have a recognition in one MS, that MS bears the full responsibility of compliance to the EU rules. While farmers from several MS benefit from the operational programme of the transnational PO, the authorities of only one MS need to do all the paper work for recognition, monitoring and evaluation. Thus, the financial responsibility, risk and liability are unequally divided over the Member States involved. In addition, the recognizing MS relies on the other Member States involved for obtaining the proper information and doing some of the control activities. Here, again, cultural differences (including public-private collaboration and consultation) may play a complicating role.

Potential solutions

- Abolish the specific support for transnational POs.
- Increase the support for transnational POs and APOs, to compensate for the additional cost (compared to national POs and APOs). By raising the percentage support for overhead costs, no change in the basis regulation is needed.

5.5. Environmental measures

Substantial legal uncertainty also exists in the eligibility of environmental measures. Many different environmental actions are eligible for EU support. However, the longer the list, the larger the difficulties in M&E and interpretation.

The evaluations of the operational programmes carried out by the MS of their National Strategies (and summarized in the Commission Staff Working Document (SWD(2014) 54 final)) shows that for many MS no clear answer can be given about the impact of the operational programmes in maintaining and protecting the environment. For several MS the evaluation showed very clearly that there was no positive effect.

Potential solution

- The lack of evidence, combined with the need for simplification of the F&V regime, asks for a reduction of the list of measures that are eligible for support.
- Use a negative list of activities that are not allowed instead of a positive list of measures that are allowed. Positive lists lead to inertia. Negative lists induce solution thinking and innovation.

5.6. Vertical integration

When farms become larger, particularly when they become very large like in a number of Northern MS where some farms have more than 30 hectare of greenhouse production or more than 100 hectare of outdoor production, handling of the product increasingly takes place at the level of the individual farm. Products are sorted, graded, and packaged at the facilities of individual farms (or small groupings of farms) and then directly transported to the distribution centres of the major supermarket companies. No physical transport from grower to PO, and from PO to distribution centre is needed, which entails benefits for the environment (fewer transport kilometres) and product quality (fewer handling activities, shorter supply chains, and no risk of interruption of the cold chain). Still, the commercialisation of the product is done by the PO. In sum, the continuous increase in the scale of F&V farming together with the need to reduce logistic activities leads to more product handling at the level of the farm and less handling at the level of the PO.

An interesting challenge has appeared for the use of the EU funds available for operational programmes. To what extent can EU support for operational programme be used to co-finance investments (like a packaging station) at the level of the individual farm?

From the perspective of supporting collaboration among growers in order to build strong POs and strengthen the market position of the group, investment at the level of the PO are most effective. Investments at the level of the PO continue to be available for the group as a whole, whatever happens with individual farms. Moreover, an investment in one activity or asset often has positive spill-overs to other business activities/assets, which make the other activities more efficient and the other assets more productive.

Using EU subsidies only at the level of the PO also prevents growers from easily switching from one PO to another (so-called 'shopping'). And it prevents competition among individual growers or small groups of growers within the PO, as not all requests for investments at individual farms can be honoured with the operational programme of the PO.

One of the consequences of larger farms and more vertical integration in supply chains is that large growers want to have more control over the marketing of their products. These large growers are big enough to have full time marketing managers on their pay role. As these large farmers are often strong entrepreneurs, they may want to have full control over the sales of their products. This does not combine well with the delegation of decision rights to the PO. As a result, these large farms are less likely to be member of a PO. Thus, in the Northern countries with large F&V farms, one should expect the organisation rate to no longer grow or even go down. The latter is already happening in The Netherlands.

Potential solution

- Focus support for operational programmes on investments at the level of the PO.

5.7. Innovation, training, technical assistance

The current trend in most Member States to reduce public spending on research, innovation and extension entails a risk that joint innovation will no longer take place. As many problems related to production quality and sustainability have strong public good characteristics, POs could play an important role in maintaining collective innovation. POs could do this with (new) InterBranch Organisations. Another type of innovation relates to

product innovation and branding. POs are the proper organisational mode to establish common brands for agricultural products, including regional products. Currently innovation and training, and particularly the human capital element of training, technical assistance, exchanging experiences, are not sufficiently supported.

Potential solutions

- More resources should be made available for product innovation and brand building.
- More support for human capital building, both technical and managerial.

5.8. Competition

An issue that comes back in every discussion and every document on how to improve the effectiveness and efficiency of the F&V regime is the need for more clarification on the competition rules. While competition rules are not part of the F&V regimes, POs experience (1) more control by competition authorities, and (2) legal uncertainty as to what is allowed and what is not allowed. Similarly as with the legal uncertainty discussed above, competition authorities are scarce in giving guidance but harsh in sanctioning.

Potential solutions

- More guidance from Competition authorities at EU and national level.

6. CONCLUSIONS AND RECOMMENDATIONS

KEY FINDINGS

- The F&V Scheme has been very effective in increasing the organisation rate, both in the number of farmers as members of POs and the F&V produce sold by POs as share of total value of F&V production
- There is a desperate need for more legal certainty, and alignment between legislators and auditors.
- There is a need for simplification of the Scheme, particularly related to environmental measures.
- No new rules are required. The key objective of strengthening producer market position can be achieved with the current rules.
- In the measures eligible for EU support, more emphasis should be placed on innovation, training, education, and managerial assistance.
- Further promotion of the APOs could induce POs to form federated structures.
- In the measures eligible for EU support, more emphasis should be placed on marketing and (product) innovation activities.
- The development towards more vertical integration in supply chains must be acknowledged.

POs, Cooperatives and Trust

Over the past decade, the organisation rate of in EU F&V sector has greatly improved, in all regions of the Union. A larger share of total F&V produce is sold through POs and a larger percentage of all farms are now member of POs. Overall concern about low organisation rate seem to be unfounded. Although the organisation rate continues to be low in some countries, it has greatly increased in other countries.

An analysis of the low organisation rate in individual Member States is beyond the scope of this report, but comparing the development of POs with the development of agricultural cooperatives in individual countries reveals a number of important determining factors. As the Support for Farmers' Cooperatives project has shown, the development of cooperatives in several countries is constrained by history, culture and inflexible legislation. While POs are not necessarily institutionalized as legal cooperatives, they are founded on the principles of cooperatives: farmer-ownership and democratic control. Thus, farmers will perceive the cost and benefit of POs the same as they perceive (other) cooperatives. Looking at the development and the factors that support or hinder this development of cooperatives in different countries and different sectors can provide valuable insights in the causes of rapid or slow development of POs in the F&V sector of individual Member States.

Direct impact on the willingness of farmers to join a PO has the level of trust these farmers have: trust in their colleagues, trust in the leadership of the PO, and general trust in

institutions. Countries with a low level of trust are more likely to see low levels of farmer collective action in cooperatives and POs.

Two lessons can be learned from the general literature on trust and from studies of trust and farmer collective action. First, while situations of low trust / low collective action can be overcome, this needs time. Trust typically takes a long time to build up, but can be destroyed overnight. As a classical Dutch expression says: “Vertrouwen komt te voet en gaat te paard” (trust arrives on foot but leaves on horseback). Thus, building effective collective action organisations (such as POs) in new Member States may take many years, and one should not be surprised that the rate of organisation does not increase dramatically within a couple of years.

Second, the development of collective action organisations such as POs requires a stable institutional environment so that trust in institutions can be built up. Policies and auditing practices that change every few years (or re-interpretations of earlier rules on which investments have been made) do not support the long-term process of trust building.

Legal uncertainty

One of the biggest problems with the current F&V Scheme is the lack of alignment between the legislators and the auditors. The audit services of the Commission seem to have a different interpretation of the rules than the policy departments. The result is legal uncertainty, which is a serious constraint to economic development and innovation, both at the level of the farm and the level of the PO.

Simplification

One route to reduce legal uncertainty and thus improve the efficacy of the F&V scheme is to make it more simple. Because the F&V scheme has to be useful in different countries, for different products and under different social and economic conditions, it is recommended to make the scheme as simple as possible. Simplification would also reduce the risk that auditors in different regions of the EU use different interpretations of the rules. The environmental measures are the most likely first target of any simplification effort.

A plea for simplification also implies that no new rules should be designed. There is no need, at least in the EU Northern Member States, for a major revision of the F&V scheme. There is, however, a strong need for more clarification and guidance.

Supply chain management, vertical integration and outsourcing

A dominant trend in the market for F&V is more vertical integration, i.e. closer collaboration between growers and their customers. Coordination about quality, logistics, quantity, sustainability, sales promotions and product development are all part of a more integrated supply chain management. This implies that growers enter into detailed contracts with their customers, and that a sophisticated distribution of labour will take place between the growers, the PO and the customers. Some activities will be carried at the level of the farm, some at the level of the PO and some at the level of the customer. The F&V scheme needs to acknowledge this trend towards more integrated supply chain management and should be flexible on the type and level of outsourcing.

Individual versus collective entrepreneurship

Both farms and POs are businesses. While POs are farmer-owned and farmer-controlled, they develop marketing strategies that go beyond the strategies of individual farmers. This is a classical tension in cooperatives that do more than just bargaining for a good price. What are the implications of marketing strategies at the level of the PO for the decision rights of the individual farmers? Farmers need to make a choice. If they join a PO (like

joining another cooperative) they delegate the decisions about the marketing of their product to the PO.

Strengthening the market position of growers through collective action has always been the key objective of the F&V regime. While other objectives have been added, for good reasons, such as crisis prevention and management and enhancing sustainability, the core focus should still be on joint marketing. Therefore, it is recommended that national authorities of Member States put more focus on this key objective. The signal from EU and national authorities towards farmers and POs should be that strengthening the market position of growers is the main reason why they receive EU support.

This focus on joint marketing has also implications on the type of investments that are eligible for Community support. While investments on individual farms may not be excluded, the core of the operational programme should be about investments at the level of the PO.

Innovation, training, technical and organisational support

One area where the F&V scheme may place more emphasis in the coming years is that of innovation, product development, technical and managerial training, organisational support, and joint learning through sharing experiences. Both on technical issues and on organisational issues, there is a great demand for more knowledge and skills at the level of growers. As farms are like small businesses the manager-owner of the farm has to have knowledge of every aspect of management, next to every aspect of the cultivation process. Stepping out of the daily task structure may not be easy in small businesses. Support from the PO through training and knowledge sharing can bring substantial knowledge benefits to farmers with a relatively small investment. Operational programmes could put more emphasis on investment in human capital.

Competition rules

Finally, a key issue for all in the F&V sector is the increasingly strict behaviour of competition authorities, at EU and national level. While the benefits of sound competition rules are acknowledged, current interpretations by competition authorities of farmer collaboration seems to ignore (1) the historical benefits that have been obtained, for society as a whole, from farmers working together in cooperatives, and (2) the benefits that cooperatives and POs can generate in terms of increasing productivity, improving sustainability, enhancing quality and safety, and efficiently responding to crises in food markets.

REFERENCES

- Bijman, J. (2012). Support for Farmers' Cooperatives: Sector Report Fruit and Vegetables, Wageningen, Wageningen UR.
- Bijman, J., and C. Gijssels (2012). Support for Farmers' Cooperatives; Case Study Report; Fruit and Vegetables Cooperatives in The Netherlands and Belgium. Wageningen: Wageningen UR.
- Bijman, J. and A. Saris (2012). Support for Farmers' Cooperatives; Case Study Report European Fruit Co-operation (EFC). Wageningen: Wageningen UR.
- Bijman, J., Iliopoulos, C., Poppe, K. J., Gijssels, C., Hagedorn, K., Hanisch, M., Hendrikse, G. W. J., Kühl, R., Ollila, P., Pyykkönen, P. & Sangen, G. van der (2012a). Support for Farmers' Cooperatives: Final Report. Wageningen, The Netherlands: Wageningen UR.
- Bijman, J., Iliopoulos, C., Poppe, K. J., Gijssels, C., Hagedorn, K., Hanisch, M., Hendrikse, G. W. J., Kühl, R., Ollila, P., Pyykkönen, P. & Sangen, G. van der (2012a). Support for Farmers' Cooperatives: Final Report. Wageningen, The Netherlands: Wageningen UR.
- Bijman, J., Hanisch, M. & Van der Sangen, G. (2014). Shifting Control? The Changes Of Internal Governance In Agricultural Cooperatives In The EU. *Annals of Public and Cooperative Economics*, 85, 641-661.
- Bogetoft, P. & Olesen, H. B. 2004. Design of production contracts: lessons from theory and agriculture, Copenhagen, Copenhagen Business School Press.
- Chloupkova, J., Svendsen, G.L.H. & Svendsen, G.T. (2003), Building and destroying social capital: the case of cooperative movements in Denmark and Poland, *Agriculture and Human Values*, 20: 241-252.
- Coleman, J.S. (1988), Social capital in the creation of human capital, *American Journal of Sociology*, 94: 95-120.
- EFP (2010), Driving Change in the Fresh Produce Sector, <http://archive.defra.gov.uk/foodfarm/food/policy/partnership/fvtf/documents/efp-report.pdf>
- European Commission (2014). Report on the fruit and vegetables regime. COM (2014) 112 final and SWD (2014) 54 final. Brussels: European Commission.
- European Foundation for the improvement of Living and Working Conditions (Eurofound), (2009), Second European Quality of Life Survey: Overview, Luxembourg: Office for Official Publications of the European Communities. [22.10.2011, Eurofound: <http://www.eurofound.europa.eu/pubdocs/2009/02/en/2/EF0902EN.pdf>
- Fernández, E. (2013). Selling agricultural products: farmers' co-operatives in production and marketing, 1880–1930. *Business History*, 56, 547-568.
- Fukuyama, F. (2000), Social Capital and Civil Society. IMF Working Paper, Washington.
- Gijssels, C. & Bussels, M. (2014). Farmers' Cooperatives in Europe: Social and Historical Determinants of Cooperative Membership in Agriculture. *Annals of Public and Cooperative Economics*, 85, 509-530.

- Hagedorn, K. (2014), Post-Socialist Farmers' Cooperatives in Central and Eastern Europe. *Annals of Public and Cooperative Economics*, 85, 555-577.
- Hanisch, M., Rommel, J. & Müller, M. (2013). The Cooperative Yardstick Revisited: Panel Evidence from the European Dairy Sectors. *Journal of Agricultural & Food Industrial Organization*, 11, 151-162.
- Hueth, B. & Marcoul, P. 2003. An Essay on Cooperative Bargaining in U.S. Agricultural Markets. *Journal of Agricultural & Food Industrial Organization*, 1, Article 10.
- Iliopoulos, C. 2013. Public Policy Support For Agricultural Cooperatives: An Organizational Economics Approach. *Annals of Public and Cooperative Economics*, 84, 241-252.
- Lissowska, M. (2012), The deficit of cooperative attitudes and trust in post-transition economies, Paper presented at the 16th Annual Conference of the International Society for New Institutional Economics, California, June 14-16, 2012. [<http://papers.isnie.org/paper/626.html>].
- Listhaug O. And Ringdal K. (2007), Trust in political institutions: the Nordic countries compared with Europe, Paper prepared for the Norwegian Political Science Meeting, NTNU, Trondheim, January 3–5, 2007.
- Meikle-Jaw, P.A. (2006) Democracy satisfaction: the role of social capital and civic engagement in local communities, Mississippi State University, Department of Sociology, Anthropology and Social Work.
- Ministerie van Economische Zaken, Landbouw en Innovatie (2011) *Herziene Nationale Strategie voor de toepassing van de marktordening voor groenten en fruit in Nederland. Periode 2009-2013*. Den Haag: Ministerie van EZ.
- Putnam, R.D. (1993) *Making Democracy Work*. Civic traditions in modern Italy, Princeton University Press.
- Putnam, R.D. (2000), *Bowling Alone: the Collapse and Revival of American Community*, New York, Simon & Schuster.
- Stokkers, R., G.D. Jukema, R.W. van der Meer, P.X. Smit and G.S. Venema (2012). Evaluation of the National Strategy for sustainable programmes in the fruit and vegetables sector. 2009-2011. Den Haag: LEI (LEI Publication 12-112).
- Soegaard, V. (1994). Power-dependence relations in federative organizations. *Annals in Public and Cooperative Economics*, 65, 103-125.
- Uslaner, E. (2008), Trust as a moral value, 101-121, in, Castiglioni, D., Van Deth, J.W. & Wolleb, G., eds., *The Handbook of Social Capital*, Oxford University Press.
- Van der Sangen, G. (2012). Support for Farmers' Cooperatives: EU synthesis and comparative analysis report legal aspects, Wageningen, Wageningen UR.
- Van der Stappen, R. (2014). EU fruit and vegetables regime. Presentation given at the ICOS2014 conference in Dublin, Ireland, November 2014.

ANNEXES

ANNEX 1. SPECIFIC CHARACTERISTICS OF THE F&V SECTOR

F&V are characterized by the perishability and seasonality of the products, but also by variation in quantity and quality (due to natural conditions). Both the variation in supply and the variation in demand (e.g. due to weather) lead to price volatility. Fresh products in general are bulky, as water is the main component. Perishability and bulkiness have major implications for logistics in the supply chain. Finally, in the consumer market many fruits and vegetables are substitutes. Depending on the price, consumers easily shift to buying other fruits or vegetables. Another type of substitution consists of the different forms in which F&V are offered to consumers: fresh, canned, frozen or dried, prepacked and ready-to-use.

Most F&V products are very perishable, which means they have to be consumed soon after harvesting or that they have to process directly after harvest into a less perishable form. This applies to most of the leafy vegetables, the soft fruits and subtropical fruits. Other products can be stored, relatively easily, for months. This applies to carrots, onions, potatoes, apples and pears. Perishability has implications for the organisation of sales and distribution, including the importance of cooperatives. For highly perishable products efficient logistics is critical. Also the relationship between seller and buyer is different for a perishable product, as the seller is more vulnerable to opportunistic buyer behaviour after a contract has been agreed.

Some countries and regions have specialized in the production of processed F&V products, while other countries and regions are specialized in the production of fresh produce. An important characteristic of the processing industry is the large economies of scale in processing facilities. Another characteristic is that processed F&V are more often sold under brand name than fresh F&V.

Food safety is an important issue in the F&V industry. On the one hand, the consumption of fruit and vegetables is considered of crucial importance for public health. For this reason, international organisations like the FAO and WHO, the EU and national governments are promoting the consumption of fruit and vegetables (in EU for instance by the School Fruit Scheme). On the other hand, the F&V sector is not immune to food safety problems, as was experienced in the 2011 EHEC crisis.

The F&V marketing system consists of a complex organisational structure, with multiple players engaged in horizontal and vertical transactions, multiple products, domestic and international trade, and seasonal variations. Logistics is one of the key factors in the marketing (or distribution) system, as products are often shipped over large distances, are perishable, and subject to rather volatile supply and demand conditions. Also international trade is substantial, both within the EU and with third countries. The technological developments in storage and transport has made possible that most F&V are now year-round available in European supermarkets. The developments combined with more open markets have led to additional competition for European producers of F&V.

ANNEX 2. SHARE OF F&V IN TOTAL AGRICULTURAL OUTPUT OF EU28

Table 3: Share of the F&V sector in the total agricultural output of EU28. Average 2011-2013.

Values	Total	F & V		Fruits		Vegetables	
	EUR million	EUR million	% of total	EUR million	% of total	EUR million	% of total
EU-28	370.407,1	51.485,1	13,9	24.373,0	6,6	27.112,1	7,3
Belgium	8.148,4	1.127,3	13,8	423,5	5,2	703,8	8,6
Bulgaria	3.601,6	233,7	6,5	138,4	3,8	95,3	2,6
Czech Republic	4.615,8	107,1	2,3	49,6	1,1	57,5	1,2
Denmark	10.767,7	222,1	2,1	46,8	0,4	175,3	1,6
Germany	51.187,8	1.728,5	3,4	514,2	1,0	1.214,3	2,4
Estonia	773,2	30,1	3,9	5,0	0,6	25,1	3,3
Ireland	6.707,0	222,8	3,3	44,1	0,7	178,7	2,7
Greece	9.366,6	3.302,2	35,3	1.882,7	20,1	1.419,5	15,2
Spain	40.294,5	11.406,3	28,3	6.568,6	16,3	4.837,7	12,0
France	67.988,3	6.124,7	9,0	3.057,0	4,5	3.067,7	4,5
Croatia	2.314,8	197,3	8,5	113,6	4,9	83,7	3,6
Italy	42.098,0	11.435,3	27,2	5.660,3	13,4	5.775,0	13,7
Cyprus	688,2	212,8	30,9	131,0	19,0	81,8	11,9
Latvia	763,5	17,5	2,3	4,3	0,6	13,2	1,7
Lithuania	2.444,3	87,7	3,6	8,9	0,4	78,8	3,2
Luxembourg	376,3	5,9	1,6	2,8	0,7	3,1	0,8
Hungary	6.991,5	827,8	11,8	358,7	5,1	469,1	6,7
Malta	120,2	35,0	29,1	6,7	5,6	28,3	23,6
Netherlands	22.970,5	2.459,5	10,7	627,8	2,7	1.831,7	8,0
Austria	6.451,8	454,7	7,0	202,8	3,1	251,9	3,9
Poland	21.582,3	3.141,2	14,6	1.276,3	5,9	1.864,9	8,6
Portugal	5.960,7	1.747,2	29,3	1.123,4	18,8	623,8	10,5
Romania	15.398,9	3.045,3	19,8	1.101,6	7,2	1.943,7	12,6
Slovenia	1.160,5	152,1	13,1	99,4	8,6	52,7	4,5
Slovakia	2.067,6	172,2	8,3	44,6	2,2	127,6	6,2
Finland	4.047,6	564,7	14,0	99,3	2,5	465,4	11,5
Sweden	5.527,7	315,0	5,7	90,4	1,6	224,6	4,1
United Kingdom	25.922,1	2.088,8	8,1	681,4	2,6	1.407,4	5,4

Source: Eurostat - Agricultural production, Economic Accounts for agriculture (aact_eea01).

Note: Total is the sum of 10000 (crop output) and 13000 (animal output). Fruits correspond to 0600 (Fresh Fruit). Vegetable is 0410 (Fresh Vegetables), i.e. excluding plants and flowers.

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT STRUCTURAL AND COHESION POLICIES **B**

Role

The Policy Departments are research units that provide specialised advice to committees, inter-parliamentary delegations and other parliamentary bodies.

Policy Areas

-  Agriculture and Rural Development
-  Culture and Education
-  Fisheries
-  Regional Development
-  Transport and Tourism

Documents

Visit the European Parliament website:
<http://www.europarl.europa.eu/studies>

PHOTO CREDIT:
iStock International Inc., Image Source, Photodisk, Phovoir, Shutterstock



ISBN 978-92-823-6584-7 (paper) - 978-92-823-6583-0
doi: 10.2861/435 (paper) - 10.2861/69531