



International Journal *of* Food Studies

Exploring Regulatory Obstacles to the Development of Short Food Supply Chains: Empirical Evidence from Selected European Countries

Lazar Živković, Mirjana B. Pešić, Hanna Schebesta and Viktor A. Nedović



Copyright Notice

Authors who publish in the International Journal of Food Studies agree to the following terms:

- Authors retain copyright and grant the journal right of first publication with the work simultaneously licensed under a Creative Commons Attribution License that allows others to share the work with an acknowledgement of the work's authorship and initial publication in this journal.
- Authors are able to enter into separate, additional contractual arrangements for the non-exclusive distribution of the journal's published version of the work (e.g., post it to an institutional repository or publish it in a book), with an acknowledgement of its initial publication in this journal.
- Authors are permitted and encouraged to post their work online (e.g., in institutional repositories or on their website) prior to and during the submission process, as it can lead to productive exchanges, as well as earlier and greater citation of published work.

Exploring Regulatory Obstacles to the Development of Short Food Supply Chains: Empirical Evidence from Selected European Countries

LAZAR ŽIVKOVIĆ^a, MIRJANA B. PEŠIĆ^{b*}, HANNA SCHEBESTA^c, AND VIKTOR A. NEDOVIĆ^b

^a University of Belgrade, Institute Mihajlo Pupin, Science and Technology Policy Research Center, Volgina 15, Belgrade, Serbia

^b University of Belgrade, Faculty of Agriculture, Institute of Food Technology and Biochemistry, Nemanjina 6, 11081, Belgrade, Serbia

^c Wageningen University & Research, Law Group, Hollandseweg 1, 6700 EW Wageningen, the Netherlands

*Corresponding author

mpesic@agrif.bg.ac.rs

TEL: +381 116774452

Received: 26 February 2021; Published online: 28 July 2022



Abstract

This paper explores the challenges in meeting the regulatory requirements of short food supply chains in 9 European countries based upon findings from the European H2020 3-year project “SMARTCHAIN”. The assessments of the barriers that small food producers face in meeting different regulatory requirements are presented. Drawing on the results of 10 multi-actor workshops that involved 124 participants, the most problematic policy frameworks for short food supply chains and key obstacles in different regulatory requirements are summarized. This research shows that current EU and national regulation is an obstacle to the development of short food supply chains, meaning that additional efforts are needed to tailor the regulations to small food producers involved in short supply chains. Furthermore, it is necessary to consider the introduction of more effective support measures for short food supply chains.

Keywords: Short food supply chains; Obstacles; Regulatory requirements; Policy support; SMARTCHAIN; H2020

1 Introduction

Short Food Supply Chains (SFSC) are increasingly identified as an important opportunity to create a sustainable change in food systems; at the same time, the concept of SFSC remains elusive. EU policy makers appear to increasingly draw attention to the role of SFSCs. In 2013, the European Commission identified some regulatory obstacles for short food supply chains but concluded that the existing and proposed EU rules provide for a “solid framework on the

one hand, and Member States and regions on the other hand to successfully support short supply chains” (European Commission, 2013). The overall findings of our research presented in this paper show that the main regulatory concerns raised in 2013 remain valid for SFSCs today. SFSCs aim at reducing the physical distance and increasing cultural and social proximity between small food producers and consumers (UNIDO, 2020). Due to progressive globalization, consumer scepticism about food quality and safety has grown over the past few decades, matched

by increasing demands for food safety, product diversity and quality of services and products (Toler et al., 2009; Vorst, 2000). Therefore, the SFSC represents one response of concerned consumers to the prevailing conventional global markets, which are characterized by standardized production and industrialized food (Galli & Brunori, 2013). An important feature of successful functioning of SFSCs is mutual trust. Trust drives solid relationships between small producers and consumers and overcomes consumer confusion, building new loyalty and fostering the progressive development of SFSCs (Giampietri et al., 2018).

SFSCs have not been defined at the general level in EU law; this is unlike, for instance, the detailed definitions for Small and Medium Sized Enterprises (Commission Recommendation, 2003). However, since 2013, the rural development legislation that is part of the Common Agricultural Policy uses the following flexible and encompassing definition: "a supply chain involving a limited number of economic operators, committed to co-operation, local economic development, and close geographical and social relations between producers, processors and consumers" (Regulation (EU) No 1305/2013). More specific EU legislation on rural development for the support of the establishment and development of short supply chains restricts this definition to one intermediary, while EU rules in other sectors such as labelling, hygiene, and unfair commercial trading practices use different concepts altogether, such as direct sale, small quantities, or a low annual turnover.

In the literature, a great variety and various classifications of SFSCs have been identified. UNIDO classifies SFSCs into the following: on-farm selling, farmers' markets, farmers' shops, box schemes, consumers-driven initiatives, public (collective) procurement, hotels, restaurants, catering (UNIDO, 2020). The European Network for Rural Development has identified three types of SFSCs: direct sales by individuals; collective direct sales and partnerships of producers and consumers (Peters, 2012). The EC IMPACT project, on the basis of the number of intermediaries, physical distance and organizational arrangements, proposed three types of SFSCs: face to face SFSCs, proximate SFSCs and

spatially extended SFSCs (Renting et al., 2003). SFSCs could be also classified in two broad categories: traditional SFSC, which tend to be farm-based and take the form of on-farm sales through farm shops or sales at producer markets and neo-traditional SFSC, which are more complex operations consisting of collaborative networks of producers, consumers and institutions, (European Parliament, 2016).

Considering the increasing demand of the population for healthy food, there is a trend of growing interest in SFSCs all over the world. More and more consumers tend to buy food products at local agricultural markets or directly on the farm (European Parliament, 2016). Therefore, SFSCs reflect the consumers' demand for quality and traceability, considering the alarming health crises in food markets (Aubry & Kebir, 2013).

There are numerous advantages of SFSCs over conventional food supply chains. SFSCs can reinforce a sense of the prevalence of the agricultural sector in a sustainable society and impact the social development of a region by preserving local communities and social justice. Additionally, SFSCs can have a positive effect on the environment due to greater number of interactions with final consumers by which they can adopt more reasonable agricultural methods and reduce the use of chemical products in the field upon the request of the end-users (Todorovic et al., 2018). As regards environmental impact, they can reduce resource use (such as fossil fuels or packaging), reduce food waste, promote less polluting production methods and reduce GHG emissions, carbon footprint, energy use and food miles (Jarzebowski et al., 2020). Regarding economic impact, SFSCs can contribute to reduce farmers' economic uncertainties, create new jobs in rural areas, increase food production quality and contribute to food safety. As for social impact, they promote more direct relations between producers and consumers, enhance trust within the value chain, foster social inclusion, promote a healthy diet etc. Overall, SFSCs may have a positive impact on sustainable development and the overall economy.

Notwithstanding the significant potential advantages, there are a host of societal, policy and other barriers that impede small farmers in the European markets. Regarding access to the mar-

ket and consumers, small farmers face numerous barriers among which Jarzebowski and Pietrzyck (2018) identified the following: poor internet network, weak IT systems, lack of affordable technical support, lack of knowledge of how to use social media, unreliable distribution, lack of communication skills in sales, inability to pay the cost of owning or renting store space, lack of skills and resources to submit an offer and meet the requirements, lack of bargaining power to challenge supermarkets in trade negotiations and poor organization compared to the professionalism expected by e.g., hotels. The lack of specific management and administrative skills represents an extremely important barrier that has been recognized by many researchers exploring this topic (European Commission, 2015b; Hyland et al., 2019). These shortcomings occur because farmers, in addition to producing foodstuffs, must perform a series of activities for which they do not necessarily have knowledge such as: marketing activities, creating and managing business strategies, distribution and selling activities, communication with customers etc. In addition to the lack of specific capacity and skills, regulatory issues also hamper SFSC. SFSCs are subject to numerous regulations including rules of hygiene, food safety, standards, taxation, certification, trading, etc. A substantial obstacle for an SFSC is the administrative burden associated with direct sales, in particular, the paperwork and costs linked to food hygiene legislation (European Parliament, 2016). Hygiene Regulations are often not adjusted to the specificities of SFSCs (Galli & Brunori, 2013). The implementation of the Hygiene Regulation in the EU favors larger players while on the other hand it marginalizes small producers and farmers, although some exemptions apply (Hyland et al., 2019). It means that some EU countries apply their own regulations and thus put their small farmers at a disadvantage compared to farmers from other countries. Small primary producers also face exclusion from public procurement contracts and other lucrative markets (Hyland et al., 2019). Labelling and procedures of getting certifications are also recognized as obstacles for small food producers (Kneafsey et al., 2013). Considering the variety of challenges that small farmers are facing in their businesses, the aim

of this paper is to explore the most important policy arrangement obstacles in different regulatory requirements of 9 European countries. The results are based upon findings from the European H2020 3-year project “SMARTCHAIN” (2018-2021), that gathers 43 partners from 11 European countries with the main aim to foster and accelerate the shift towards collaborative short food supply chains and, through concrete actions and recommendations, to introduce new robust business models and innovative practical solutions that enhance the competitiveness and sustainability of the European agri-food system.

2 Materials and Methods

2.1 Participants and Procedure

The SMARTCHAIN project was designed to follow a multi-actor approach. Within the project, 18 SFSCs were involved as case studies in 7 EU (Germany, Italy, Greece, Netherlands, France, Hungary, Spain) and 2 associated (Switzerland and Serbia) countries. Apart from the 18 SFSC practitioners, the consortium includes 25 partners from 11 EU countries (next to those already mentioned, Austria and Belgium are also involved) that are experts from universities, businesses, as well as their associations and cooperatives, non-profit organisations and governmental institutions.

In order to analyse SFSC-related policy framework in the 7 EU and 2 associated countries, multi-actor national workshops were carried out between 09 and 26 November 2018. In total, 124 actors, including selected case studies (18 case studies from 9 European countries), national project partners (from Germany, Italy, Greece, Netherlands, France, Hungary, Spain, Switzerland and Serbia) and external invited stakeholders from these countries knowledgeable about SFSCs, participated in 10 multi-actor workshops. The overview of workshop participants can be found on the Zenodo platform as an open dataset (Pestic, 2021). A Participant Information Sheet (containing the objective of the multi-actor workshop and ethics issues) and the Multi-actor Informed Consent Form were distributed to all attendees. In order to collect primary data, a stuc-

tured questionnaire was distributed to participants who were asked to write their answers to questions. In a preliminary analysis of the questionnaires, participants' answers were screened and cases with invalid answers were identified (blank or incomplete answers, obvious misunderstanding of questions asked). Aiming to collect missing data in the questionnaires, a second round of data collection was conducted and managed by hub managers in each participating country. National hub managers contacted participants of national multi-actor workshops and conducted interviews to clarify those parts of the questionnaire that participants had failed to complete. After the collection of the missing data, the questionnaires were analysed. Qualitative and quantitative data analyses were implemented. For quantitative data analysis, descriptive statistics summarizing data from the sample were used. For qualitative analysis, the inductive reasoning approach was used.

2.2 Questionnaire and analysis

The questionnaire was divided into two sections (Pestic, 2021). Section one consisted of four open-ended questions related to the policy environment of the country in which the participants carry out their activities. The questions were:

- What are your most problematic policy frameworks;
- What is the regulation/governance arrangement that is most important to the short supply chain aspect of your business;
- What is the regulation/governance arrangement that presents the most important obstacle to the short supply chain aspect of your business;
- What is the regulation/governance arrangement that present the best facilitation to the short supply chain aspect of your business? After each question, the space for written answers of participants was provided.

Section two included a part on the regulatory and a part on the institutional setting for SFSCs (Fig. 1). In the first part, the respondents were

asked to give their opinion about obstacles or facilitations in meeting regulatory requirements depending on personal experiences. To evaluate the regulatory environment for SFSCs, the following regulatory requirements were selected: labelling, nutrition and health claim, getting business licences and permits, food certificates, hygiene standards, marketing standards, water for production/processing, waste management and recycling, specific quality requirements, food contact materials, food safety, traceability, authenticity, transparency, transportation of goods, ethical food production, public procurements, purchasing equipment, implementation of any legislation, stay up-to date with legislations and employees recruitment. To evaluate the institutional setting, the respondents were asked to answer questions regarding obstacles or facilitations in getting funding for their business, in the payments of their goods, with the efficiency of using resources and with the accessibility of products to consumers. Each question was scaled on a five-point scale, from "great facilitation" to "great problem". A written explanation of the selected answer was mandatory.

Considering that the open questions resulted in unstructured text data, an inductive approach to the construction of classification categories was used. This approach aims to generate meaning from the data set collected in order to identify patterns, conclusions and final generalizations. We started from the assumption that the main issues cannot be determined in advance, due to different national environments and stages of development of SFSCs. Therefore, the frequency of occurrence of different topics was the main method for determining the final issues.

First, a detailed review of all answers to the open-ended questions was done, in order to notice the relevant content, with the recording of first impressions of the analyzed material. All topics that appeared in the answers were registered, and then during the next review, the number of topics was reduced, noting those that covered several aspects. Every response was analyzed one-by-one in order to be placed in the specific category. The process was repeated until the final issues were identified.

2nd part of the Multi-actor workshop		T1.4 Policy analysis at regional level						
A=case study 1, B=case study 2, Numbers=expert rating								
1 rating per expert and per policy category								
According to your personal situation, do you have...								
Policy topics - Meeting requirements for...	...great facilitation	...little facilitation	...no special remark	...little problem	...great problem	Please explain the facilitation (in bracket name and expertise of the expert):	Please explain the problem (in bracket name and expertise of the expert):	
...the labeling								
...the nutrition and health claims								
...getting the business license and permits issued by competent authorities								
...the food certificates (e.g. ISO 9001, ISO 22000, FSIS 22000, BRC Global Standard for Food Safety, IFS (International Featured Standards))								
...the implementation of different hygiene standards (HACCP, GAP, ...)								
...the marketing standards								
...the water for production/processing								
...the waste management and recycling								
...the specific quality requirements								
...the food contact materials (e.g. containers for transporting food, machinery to process food, packaging materials), the foreign body contaminants (physical, chemical, biological nature: e.g. paper, paint, glass, wood, stone, plastic, metal, human hair, part of insects, cleaning fluids, "wrong" food)								
...the food safety (contaminants, allergens, etc.)								
...the traceability, authenticity, food transparency								
...the transportation of goods, the cold chain and refrigeration								
...the ethical food production								
...the public procurements								
...purchasing equipment								
...the implementation of any legislation								
...for remaining up-to-date with legislation changes								
...employees recruitment								
According to your personal situation, do you have...								
Policy topics...	...great facilitation	...little facilitation	...no special remark	...little problem	...great problem	Please explain the facilitation (in bracket name and expertise of the expert):	Please explain the problem (in bracket name and expertise of the expert):	
...in getting funding for your business (subventions, grants, direct payments)								
...in the payments of your goods (late payments for perishable food products, last minute order cancellations, unilateral or retroactive changes to contracts, generally unfair trading practices)								
...with the efficiency of using resources								
...with the accessibility of products to consumers								

Figure 1: Section two of the questionnaire for exploring the most important policy arrangement obstacles in different regulatory requirements of 9 European countries

3 Results and Discussion

3.1 Most problematic policy frameworks

On the basis of inductive reasoning, the final issues were identified; the analysis showed that the most problematic policy frameworks for SFSCs relate to the following issues (Fig. 2):

- Insufficient policy support to SFSCs
- High level of bureaucracy
- Unfavorable subsidy policy

Insufficient policy support to SFSCs

A total of 35 percent of the respondents believe that local, regional or national governments do not provide sufficient support to small farmers and do not recognize their importance for the entire economy. Policy measures aimed at supporting small food producers are scarce. Respondents believe that the main reason for this situation is a focus on global trade and directing support to

exporters. Domestic small producers are not protected from imports of cheap products from third countries, which indicate that they are not sufficiently recognized, nor acknowledged in national policy frameworks.

Specifically, rural development programs are not suitable for SFSCs in most of the respondents' countries, and they are not adequately harmonized with the EU regulations for small farmers. The logistical support to SFSCs by supporting organizations (chambers of commerce, associations, clusters, local government agencies, etc.) is insufficient, which implies the necessity of introducing a more efficient system of support at all government levels.

The workshop respondents stressed the importance of strengthening institutional support for the development of new products, specifically they underlined the need for supporting measures aimed at strengthening the relationship between farmers and customers based on demand-driven production as well as measures aimed to enhance the soft skills of farmers.

Respondents also noted a lack of policy support for trading practices and direct sales. Some of

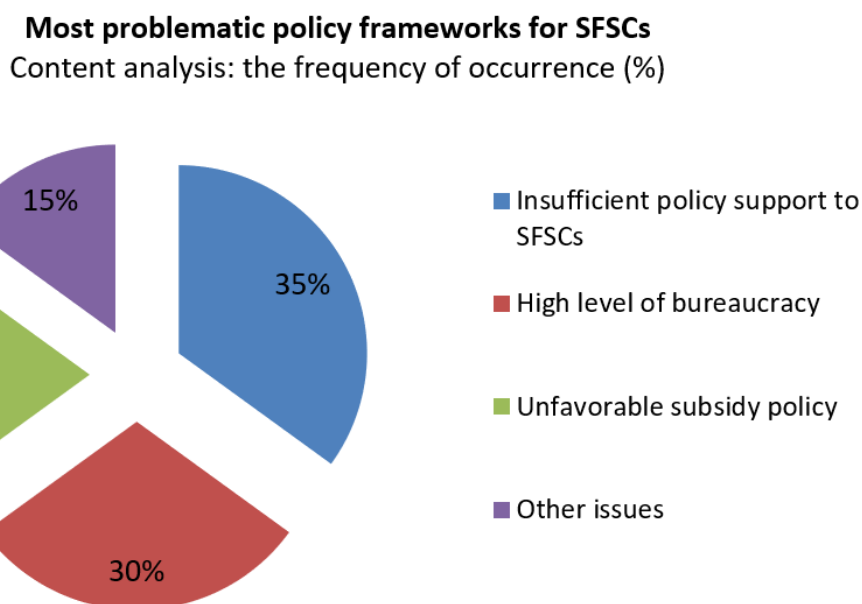


Figure 2: Most problematic policy frameworks for SFSCs, 9 and 26 November 2018

the specific challenges that small farmers are facing regarding trading practices are the following: late payments and a long billing period for food products which have a particularly negative effect on perishable products; generally unfair trading practices with no consequences for retailers; last minute order cancellations; unilateral or retroactive changes to contracts, etc.

High level of bureaucracy

More than 30% of workshop participants find that regulation is very complicated, not transparent and not tailored to small producers and farmers. With limited resources, SFSCs do not have capacities to deal with the regulatory complexity. They consider that there is an extremely high level of bureaucracy in the current regulatory frameworks. Some of the specific examples of complex regulations identified by the participants of multi-actor workshops are the following:

- HACCP standards are not totally applicable to SFSC. For example, some small producers complained that the hygienic regulations

define too small a quantity for marginal food production that is not economically sustainable for small farmers.

- Inconsistency and imprecision in determining product quality regulations.

Unfavorable subsidy policy

Unfavorable subsidy policies are stressed by 20 percent of workshop participants indicating that the subsidy policies are not focused on small farmers. However, in situations where there are support programs aimed at small farmers in the form of public calls, the small farmers do not have the capacity, i.e., do not have the knowledge and resources to apply for calls. Most respondents agreed that it is not difficult to get information about subsidies, grants or direct payments, the difficult part is to fulfil all the requirements that are associated with obtaining this funding. There is a generally low level of knowledge on how to prepare the application dossiers. Policy instruments do not fit the needs of SFSCs. The local, regional and national sub-

sidy funds continually focus on new initiatives, instead of strengthening the existing ones. Therefore, these instruments disturb momentum rather than strengthening it.

3.2 Key obstacles in different regulatory requirements

This section provides an insight into the workshop participants' attitudes toward pre-defined aspects of regulatory requirements, with the main focus on the obstacles they face in their businesses. The participants expressed their opinion on whether they experienced any barrier in meeting the requirements for specific regulatory frameworks. Fig. 3 summarizes the attitudes of the workshop participants for each of 19 pre-defined regulatory frameworks. The sections below discuss the most salient areas as highlighted by the workshop participants in their written answers.

More than 70% of the workshop participants have experienced minor or major problems in meeting requirements for the following regulatory settings: implementation of legislation, traceability, authenticity, food transparency, nutrition and health claims and labeling requirements. The key causes for most of the problems are similar and can largely be reduced to the following: a lack of knowledge and unfavorable regulations. Obtaining knowledge about what needs to be implemented and finding out a definite list of the exact legislation that needs to be implemented is a challenge for most small food producers.

The legislation is confusing and difficult to understand by small firms, especially in the field of labeling and nutrition and health claims. There are constant changes which are confusing to small producers/processors. The cause of the problem can best be explained by quoting a workshop participant:

Legislation has over 40 pages but no practical examples and instructions. It would be useful if regulatory institutions would provide some kind of practical explanations for regulations they put forward.

Therefore, it is challenging for SFSCs to keep up with the new government legislation and changes to the present legislation. There is a lack of regular communication about changes and their explanation and there is a lack of a free advisory system or a central information platform that should serve small food supply chains in most of the countries from our sample.

Business licenses and permits

In total, 24, of 43 workshop participants pointed out that obtaining business licenses and permits represent a problem for their businesses. Except in samples of Switzerland and Germany, SFSCs from other partner countries have emphasized the problem of insufficiently transparent and clear licensing procedures which is a particularly significant problem for small companies that are just starting a business and do not have enough information and resources to address this issue.

Hygiene regulations

Implementing HACCP standards could be a big burden for small businesses and linked to huge costs. They are designed primarily for agri-industrial processes. Although the rules allow a flexible interpretation to lighten the burden for traditional products, this has only been used to a limited extent according to the workshop participants. In total, 21 of 46 workshop participants have experienced minor or major problems in meeting requirements for the implementation of different hygiene standards.

Food safety

Although more than half of workshop participants (in total 21 of 40) did not have any special remarks on the food safety requirements (contaminants, allergens, etc.), there were still considerable points made by participants from Italy, Hungary, Germany, and Serbia. In addition to the lack of knowledge and unfavorable regulations, they also stressed insufficient institutional support in meeting requirements for food safety, e.g., the Hungarian stakeholder faces the problem of expensive pesticide residue testing since there

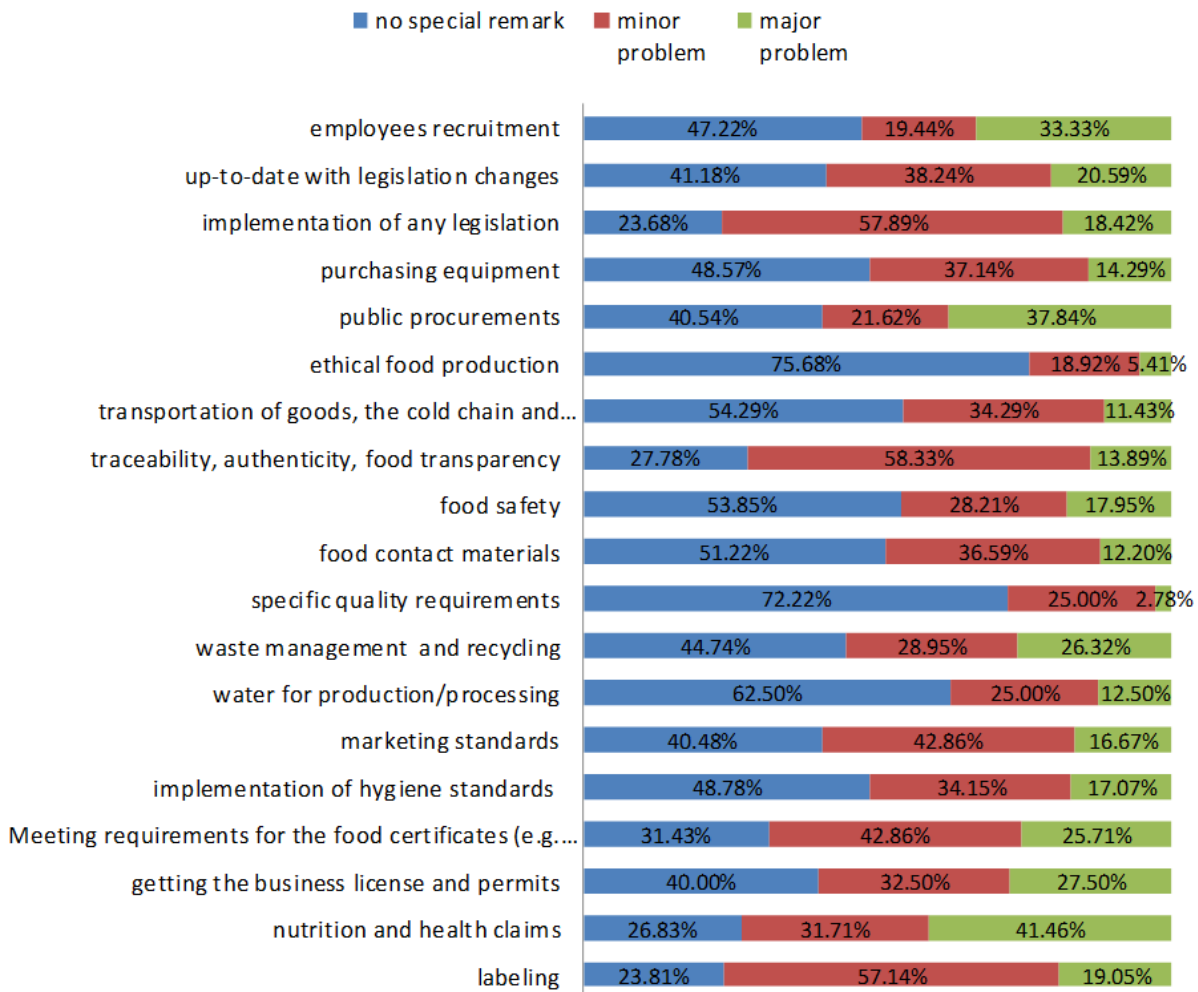


Figure 3: Difficulties of workshop participants in meeting the requirements for specific regulatory settings, 09 and 26 November 2018

isn't an accredited laboratory capacity available in this country.

Waste management and recycling

The problem of waste management and recycling is very different in each country and depends to a great extent on the degree of implementation of this practice in the entire country in general. Although, 17 of 40 stakeholders had no special remarks for waste management and recycling, there were still a considerable number of stakeholders who reported a minor or major problem in this area. Key challenges of 21 stakeholders in this area include the following issues: the lack of knowledge, low control in the presence of phytosanitary waste, low awareness on waste recycling, difficulties to keep up with frequent legislation changes and high costs of plastic waste management.

Public procurement

A considerable number of small farms and producers (22 workshop participants out of 37) have experienced great problems in meeting requirements for public procurement procedures. It is practically impossible for them to win the tenders in competition with much larger companies. The tender rules for SFSCs are perceived as unfeasible and unfair competition. In addition, the public procurement rules are also restrictive as to how social considerations can be used, for instance in how far public authorities can limit the open competition in favor of local production. Participants expressed that there has not been enough support from governments in most of the partner countries in this field so far.

Labeling and claims

Most workshop participants (32 of 44 or 76.19%) have indicated meeting requirements for labeling as problematic. The main challenges that small farmers/food processors have faced in this area include: lack of knowledge/expertise, confusing, broad and restrictive legislation, lack of a free advisory system in labeling and high costs.

3.3 Discussion of the findings

The survey indicates that there are systemic grievances by SFSC about policy support and about more specific regulatory frameworks. One explanation for this dissatisfaction is that most policy frameworks do not deal with the category of SFSC food system participants specifically, and by consequence, adequately.

The fact that SFSCs are linked to a diffuse set of special characteristics, such as specific social embedding, local character of production, closeness to the consumer, artisanal production, and/or limited size make the concept difficult to capture in one definition. For some regulatory contexts, an open definition is most adequate, such as the one adopted under the overarching rural development policy framework as "involving a limited number of economic operators, committed to co-operation, local economic development, and close geographical and social relations between producers, processors and consumers" (Regulation (EU) No 1305/2013 (European Commission, 2013)). By contrast, the EU legislation on rural development for support for the establishment and development of short supply chains is much more restrictive, limiting it to "supply chains involving no more than one intermediary between farmer and consumer" (Commission Delegated Regulation (EU) No 807/2014 (European Commission, 2014)). A flexible definition is capable of capturing the diversity of SFSC, while a narrow definition can be over-exclusive of certain types of SFSC and possibly explain some complaints about the policy frameworks.

A number of legal frameworks create exemptions and flexibilities that are specifically pertinent to SFSC. A main example is the EU hygiene framework. It contains no definition of small food businesses, and no specific requirements are applicable only to them. Nevertheless, there is a complex web of flexibility provisions (Lawless, 2012). Exclusions from the applicability of the Directives exist for direct supply, by the producer, of small quantities of primary products to the final consumer or to local retail establishments directly supplying the final consumer 'primary products' meaning products of primary production including products of the soil, of stock farming, of hunting and fishing, such as eggs, vegeta-

bles or fruit. In addition to this exclusion, Member States may deviate from certain provisions, under specified circumstances. Finally, Member States may adapt requirements laid down in the Annexes of the hygiene package in specific circumstances and adopt national measures adapting, for instance, the requirements for traditional methods or regions with special geographical constraints, or the construction, layout, equipment of establishments. While the legal framework contains several layers of flexibilities, based on our findings, these appear unsuccessful in meeting the needs of SFSC. Instead, the flexibility introduces an additional complexity that may be difficult to handle for SFSC. In addition, it is questionable that the Member States make optimal use of the flexibilities provided; national inconsistencies and incorrect usage of adaptations were noted by the Food and Veterinary Office of the European Commission (2015a). Finally, while there are ad-hoc flexibilities, these are not consistently targeted at SFSC, and the European Commission has never used the possibility afforded it under the Hygiene Regulations to adopt measures to derogate from the HACCP obligations for “small businesses”.

A similar situation exists within the EU labelling law: there is some facilitation for small producers and processors. Foods that are packed on the sales premises at the consumer’s request or prepacked for direct sale are exempt from certain labelling requirements, notably the inclusion of mandatory food information directly on the package.

The various legislation that impacts SFSCs capture short supply chains on an ad-hoc basis and use distinct connecting factors such as the nature of the production (primary production), type of sale (direct sale for food information, or one intermediary for regional development), turnover, or other criteria.

An exception to this overall assessment is the introduction of the Unfair Trading Practices Directive, UTDP, (2019) that will apply as of 2021 (and is therefore not reflected in the workshop findings). The Directive addresses the inferior power position of small food businesses particularly, although it is important to note that this concentrates on the notion of small businesses and loses some nuance of the SFSC concept. The

Directive prohibits certain unfair trading practices of agricultural and food products towards economically weaker suppliers. In characterizing the protected businesses, the UTPD relies on the relative economic relationship between supplier and buyer as measured by turnover; for instance, suppliers which have an annual turnover not exceeding EUR 2 000 000 to buyers which have an annual turnover of more than EUR 2 000 000 (Schebesta et al., 2018). The legal framework was conceived as a protection of farmers/primary producers, but the protection afforded is more akin to protecting SME companies than SFSC specifically.

Overall, the insufficient structural attention to SFSC within current legal frameworks can be used to explain policy deficiencies, dissatisfaction about the rules, and bureaucratic overload alike. Recent policy developments at the EU level do not emphasise the role of SFSC in a food systems transition as much as one might have expected. In May 2020, the European Commission published the new Farm to Fork (F2F) Strategy (European Commission, 2020), which has as its objective a major sustainability overhaul of the EU food system. The F2F Strategy endorses short, regional and/or short supply chains as a way of creating a more resilient food system and in order to reduce dependence on long-haul transportation but remains silent as to how this would be achieved. It is questionable how such ambitions will translate into practice, as they are not matched with concrete legal actions (Schebesta & Candel, 2020). The commitment to SMEs, by contrast, is more explicit, with a commitment to foster “tailored solutions to help SME food processors and small retail and food service operators to develop new skills and business models, while avoiding additional administrative and cost burdens.” The F2F Strategy, however, does foresee legislative initiatives to enhance cooperation of primary producers to support their position in the food chain and non-legislative initiatives to improve transparency. This may benefit those SFSC that are primary producers incidentally but is not related to their status as SFSC. This ties in with the relevance of the outcome of the post-2020 Common Agricultural Policy (CAP) - although unclear, initial policy positions seem to indicate that support for SFSC in the scope of

the CAP will remain within the realm of Member States and not be subject to streamlined policy efforts at EU level within that framework. During the implementation of the F2F Strategy, the legislative initiatives could have gone further in strengthening the category of SFSC within the EU food system, and streamlined this protection with eventual support deriving from the post-2020 CAP.

4 Conclusions

This article examined the most important regulatory barriers that small food producers face in their day-to-day operations, with particular focus on SFSCs. Considering that the agri-food sector is strictly regulated, SFSCs are subjected to the whole system of regulation requirements. This research showed that, although there are certain differences between individual European countries, regulations represent a significant constraint to the development of SFSCs. It turned out that the participants largely believe that the regulation was mainly created for industrial companies and not tailored to farmers and small food producers that are involved in SFSCs. Regarding the ability of SFSCs to meet different regulatory requirements, it was shown that the main problem small food producers face is the lack of knowledge and expertise to deal with regulatory issues. Small producers lack internal resources to deal with the bureaucratic procedures imposed by various regulations. However, not all the regulatory requirements represent the same level of barrier to the development of SFSCs. The results indicate that the most important obstacles are the regulations in the areas of labelling, nutrition and health claims and traceability, authenticity and food transparency. Although some progress has been achieved in recent years, this research has shown that SFSCs are still not sufficiently recognized and supported by the policy instruments in most European countries. The bureaucratic procedures are complicated and not tailored to SFSCs. There is a need to provide more efficient institutional support to SFSCs, which includes advising, counselling, training, administrative consulting etc. There is a certain gap in the implementation of

EU regulations at the national level, which implies that some EU member states do not adequately implement the measures prescribed by the EU regulations. This gap is even more evident for non-EU members. At the EU level, both the diversity of applicable EU legal frameworks as well as the European Commission's Farm to Fork policy strategy do not consider SFSC systematically and coherently, thus failing to facilitate their role in a future EU food system.

Acknowledgements

This research received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 773785: Towards innovation-driven and smart solutions in short food supply chains ("SMARTCHAIN").

References

- Aubry, C., & Kebir, L. (2013). Shortening food supply chains: A means for maintaining agriculture close to urban areas? The case of the French metropolitan area of Paris. *Food Policy*, 41, 85–93. <https://doi.org/10.1016/j.foodpol.2013.04.006>
- Commission Recommendation. (2003). concerning the definition of micro, small and medium-sized enterprises C(2003) 1422) OJ L 124, 20.5.2003. *Official Journal of the European Union*.
- European Commission. (2013). *Commission Staff Working Document on various aspects of short food supply chains*. <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52013SC0501>
- European Commission. (2014). Commission delegated regulation (EU) No 807/2014 of 11 March 2014 supplementing Regulation (EU) No 1305/2013 of the European Parliament and of the Council on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) a. *Official Journal of the European Union*, 57, 1–17. http://data.europa.eu/eli/reg_del/2014/807/oj

- European Commission. (2015a). *Better HACCP implementation : overview report* (tech. rep.). Luxembourg, Publications Office of the European Union. <https://doi.org/10.2772/59374>
- European Commission. (2015b). *EIP-AGRI Focus Group on Innovative Short Food Supply Chain Management: Final report* (tech. rep. November). <https://ec.europa.eu/eip/agriculture/en/publications/eip-agri-focus-group-innovative-short-food-supply>
- European Commission. (2020). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions : A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system* (tech. rep.). European Commission. Brussels. https://eur-lex.europa.eu/resource.html?uri=cellar:ea0f9f73-9ab2-11ea-9d2d-01aa75ed71a1.0001.02/DOC_1&format=PDF
- European Parliament. (2016). Short food supply chains and local food systems in the EU. *Official Journal of the European Union*. [https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/586650/EPRS_BRI\(2016\)586650_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/586650/EPRS_BRI(2016)586650_EN.pdf)
- Galli, F., & Brunori, G. (Eds.). (2013). *Short Food Supply Chains as drivers of sustainable development: Evidence Document* (tech. rep.). <https://orgprints.org/id/eprint/28858/1/evidence-document-sfsc-cop.pdf>
- Giampietri, E., Verneau, F., Del Giudice, T., Carfora, V., & Finco, A. (2018). A Theory of Planned behaviour perspective for investigating the role of trust in consumer purchasing decision related to short food supply chains. *Food Quality and Preference*, 64, 160–166. <https://doi.org/10.1016/j.foodqual.2017.09.012>
- Hyland, J., Crehan, P., Colantuono, F., & Macken-Walsh, A. (2019). The Significance of Short Food Supply Chains: Trends and Bottlenecks from the SKIN Thematic Network. *Studies in Agricultural Economics*, 121(2), 59–66. <https://doi.org/10.22004/ag.econ.292231>
- Jarzebowski, S., Bourlakis, M., & Bezat-Jarzebowska, A. (2020). Short Food Supply Chains (SFSC) as Local and Sustainable Systems. *Sustainability*, 12(11), 4715. <https://doi.org/10.3390/su12114715>
- Jarzebowski, S., & Pietrzyck, K. (2018). The Concept of Short Supply Chains in the Food Economy. In M. Wigier & A. Kowalsk (Eds.), *The common agricultural policy of the european union – the present and the future eu member states point of view* (pp. 196–208). <https://doi.org/10.30858/pw/9788376587431.15>
- Kneafsey, M., Venn, L., Schmutz, U., Balázs, B., Trenchard, L., Eyden-Wood, T., Bos, E., Sutton, G., & Blackett, M. (2013). *Short Food Supply Chains and Local Food Systems in the EU. A State of Play of their Socio-Economic Characteristics* (tech. rep.). European Commission Joint Research Centre. Luxembourg, Publications Office of the European Union. <https://doi.org/10.2791/88784>
- Lawless, J. (2012). The Complexity of Flexibility in EU Food Hygiene Regulation. *European Food and Feed Law Review*, 7(5), 220–231.
- Pesic, M. (2021). Opinions and data on short food supply chains related policy analysis in 9 EU countries generated in the H2020 SMARTCHAIN Project grant number: 773785. <https://doi.org/10.5281/ZENODO.5119516>
- Peters, R. (Ed.). (2012). *Local Food and Short Supply Chains* (tech. rep.). European Network for Rural Development. https://enrd.ec.europa.eu/publications/eu-rural-review-12-local-food-and-short-supply-chains_en
- Renting, H., Marsden, T., & Banks, J. (2003). Understanding alternative food networks: exploring the role of short food supply chains in rural development. *Environment and Planning A*, 35, 393–411. <https://doi.org/https://doi.org/10.1068/a3510>

- Schebesta, H., & Candel, J. J. L. (2020). Game-changing potential of the EU's Farm to Fork Strategy. *Nature Food*, 1(10), 586–588. <https://doi.org/10.1038/s43016-020-00166-9>
- Schebesta, H., Verdonk, T., Purnhagen, K. P., & Keirsbilck, B. (2018). Unfair Trading Practices in the Food Supply Chain: Regulating Right? *European Journal of Risk Regulation*, 9(4), 690–700. <https://doi.org/10.1017/err.2019.2>
- Todorovic, V., Maslaric, M., Bojic, S., Jokic, M., Mircetic, D., & Nikolicic, S. (2018). Solutions for More Sustainable Distribution in the Short Food Supply Chains. *Sustainability*, 10(10), 3481. <https://doi.org/10.3390/su10103481>
- Toler, S., Briggeman, B. C., Lusk, J. L., & Adams, D. C. (2009). Fairness, Farmers Markets, and Local Production. *American Journal of Agricultural Economics*, 91(5), 1272–1278. <https://doi.org/10.1111/j.1467-8276.2009.01296.x>
- UNIDO. (2020). *Short food supply chains for promoting local food on local markets*, United Nations. <https://tii.unido.org/node/2879>
- Vorst, J. (2000). *Effective food supply chains: generating, modelling and evaluating supply chain scenarios* (Doctoral dissertation). Wageningen University. <https://library.wur.nl/WebQuery/wurpubs/66572>
- Ph. D