

Deliverable 7.4 Best practice guide for improved business performance in short food supply chains

Work Package 7

LCP



Document Identification

Project Acronym	SMARTCHAIN
Project Full Title	Towards Innovation - driven and smart solutions in short food supply
	chains
Project ID	773785
Starting Date	01.09.2018
Duration	36 months
H2020 Call ID & Topic	SFS-34-2017 - Innovative agri-food chains: unlocking the potential for
	competitiveness and sustainability
Project Website	http://www.smartchain-h2020.eu/
Project Coordinator	University of Hohenheim (UHOH)
Work Package No. & Title	WP7 Business and policy recommendations
Work Package Leader	AZTI
Deliverable No. & Title	D. 7.4 Best practice guide for improved business performance in short
	food supply chains
Responsible Partner	LCP
Author (s)	Simona Petruzzella (LCP), Katia De Luca (LCP), Isabella Iacobbe (LCP),
	Valeria Diaferia (LCP), Donatella Grasso (LCP), Michelangelo De Palma
	(LCP), Eduardo Puertolas (AZTI), Raquel Rodriguez (AZTI), Marieke
	Lameris (NBC).
Туре	Report
Dissemination Level	Public
Date	03.08.2021
Version	1.0
Status	Final version



Executive Summary

The central objective of SMARTCHAIN is to foster and accelerate the shift towards collaborative short food supply chains (SFSCs) and, through specific actions and recommendations, to introduce new robust business models (BM) and innovative practical solutions that enhance the competitiveness and sustainability of the European agri-food system. Using bottom-up, demand-driven research, the SMARTCHAIN consortium (43 partners form 11 European countries) perform a multi-perspective analysis of 18 case studies (from 9 project partner countries) of SFSCs in terms of technological, regulatory, social, economic and environmental factors, assess the linkages and interactions among all stakeholders involved in SFSCs and identify the key parameters that influence sustainable food production and rural development among different regions in Europe.

Specifically, the main objective of the WP 7 (Business and policy recommendations) is to generate a battery of tools as well as business and policy recommendations to implement innovative solutions in SFSCs, primarily improving their competitiveness and sustainability and making them smarter and more equitable, inclusive and sustainable. One of these tools is the "Best practice guide for improved business performance in short food supply chains" (D.7.4), the subject of the present deliverable.

The present deliverable summarises the work accomplished regarding the creation of the best practice guide for the application of reference exploitation models, improving business performance in SFSCs and helping farmers, food producers and regions to capitalise on their distinctive territorial capital to foster sustainable growth and the development of rural areas (SO3). This work was done in the T7.3 "Recommendations for the implementation of reference exploitation models" (M17-M36). This task was leaded by LCP, participating also AZTI and NBC. This deliverable is aimed at entrepreneurs, companies, and aspiring entrepreneurs who want to start or implement a SFSC activity, taking into account the various aspects that form and make a business model effective, without neglecting the environmental and social components.

The results of the analysis of the 18 case studies and of the specific characteristics of each reference exploitation model obtained in D.7.2 have been used as inputs. The process of drawing the recommendations has been done through the following steps: The 18 cases studies of SMARTCHAIN were studied in order to detect the main characteristics of their businesses from a multi-angle viewpoint, looking at their strengths, challenges, threats and opportunities. The case studies were then analysed as part of a broader literature review on the five exploitation models, derived from D.7.2 and their characteristics. The deliverables of other SMARTCHAIN WPs, in progress, and results from D.7.1 about the analysis of ongoing innovations were studied and analysed, in order to get and integrated set of recommendations. The recommendations have been developed and grouped according to the building blocks of the business model canvas, following the analysis of the 18 case studies and of the five reference exploitation models derived from D.7.2.

The guide is thus articulated as follows: it starts by describing what is SFSC and the five reference exploitation models, drawing from the previous work done in WP7. Then, it provides an overview of the business model



canvas and its nine building blocks, suggesting some tools and methodologies to elaborate the main areas of the canvas. The analysis of the business model canvas takes also into consideration the specificity of SFSC initiatives and it thus presents the social and environmental business model canvases, elaborated by Joyce and Paquin (Joyce e Paquin 2016). The guide then explores the business model recommendations for each building block of the canvas, highlighting, if possible, if there are some more specific recommendations for each exploitation model and if there are some further recommendations regarding Covid-19 and its impact on SFSCs. The guide then follows the same methodology with regard to the social and environmental business model canvases, providing recommendations for each of their nine building blocks. The guide is concluded with an overview about Covid-19, its impact on SFSCs and some recommendations in this regard.

This Best practice guide will be a public document, useful to everyone interested in improving its business, in terms of competitiveness and sustainability of the SFSCs, and making it smarter, more equitable and inclusive. It will be a tool for identifying opportunities and strategies to enable SFSC initiatives, improve their performances while being aware of their social and environmental impact.



Index

1. 1	intro	duc	tion to Short Food Supply Chains (SFSCs)	6
1	.1 M	lain	Types of SFSC initiatives	8
2. I	Busir	ness	Model and Business Model Canvas	9
3. I	How	to c	lesign a Business Model	13
3	.1 V	alue	e proposition	14
3	.2 C	usto	omers and Customers relationship	15
3	.3 K	ey p	partners	16
3	.4	Ke	y resources	18
3	.5 C	ost :	structure and revenue stream	18
4	Bu	sine	ess recommendations	19
4	.1	Val	lue proposition:	19
	4.1	.1	Labeling and branding	20
4	.2	Cus	stomer segments	22
4	.3	Cha	annels	24
	4.3	.1	Communication channels and tools	24
	4.3	.2	Sales and purchase channels	28
4	.4	Cus	stomer relationship	30
4	.5	Ke	y partners	32
	4.5	.1	Knowledge sharing	34
	4.5	.2	Infrastructure sharing	35
	4.5	.3	Institutions and administrations	36
4	.6	Мо	nitoring, data collection and record keeping	38
4	.7	Ke	y resources, cost and revenues	39
5	•	Soc	cial and environmental components: opportunities and recommendations	42
	5.1		Social business model	43
	5.2		Environmental business model canvas	50
6		SF	SC and Covid-19: business recommendations	58



Bibliography	60
Annex 1: Infographic - A graphic version of the Best practice guide for improved	business
performance in short food supply chains	66



1. Introduction to Short Food Supply Chains (SFSCs)

In recent decades the key role of food supply chains in local and rural development has been widely recognised. While global food chains have expanded, leading to deep changes in the agri-food systems, many debates and concerns have been raised regarding the need to reorganise food supply chains. The main concern is the one that people should have enhanced opportunities to actively participate in the food system, in a variety of scales and stages (Hassanein 2003). At the core of such reorganisation of food supply chain lies the aim of reconnecting producers and consumers, re-localising food production while addressing inequalities and imbalances along the supply chain (SAPEA 2020). Together with the recognition of the centrality of people is also the rise of environmental and social concerns; among the challenges evidenced by the Industrialized model of food provisioning, are the environmental and social outcomes of such system as well as the difficult access to market for smallholders and small and medium enterprises (UNIDO 2020).

"Short Food Supply Chains" (SFSCs) have indeed emerged both in Europe and the United States, through their ability to respond to this need of re-socialise or re-spatialize food, to allow the creation of new linkages between producers and consumers, agriculture and society as a whole (Kneafsey, et al. 2013). The enhancement of SFSC initiatives is in fact expected to promote economic benefits as well as social ones, strengthening social relations, preserving the environment while fostering local development (UNIDO 2020). SFSC initiatives include different typologies and characteristics. The literature studies SFSC initiatives looking at their specific characteristics as well as their market arrangements. When looking at characteristics, SFSCs seem to be defined by:

- Geographic proximity
- Economic viability
- Social interaction
- Environmental sustainability

These four main aspects define how in a specific geographic area, producers, partners and consumers operate, fostering the creation of value for both producers and the local economy, while building environmental and social benefits. In more specific terms, results from a review of the literature highlight the following general characteristics:

Farmers	 Usually fewer than 10 producers Creation of network of aggregation of small business involved in SFSCs Distance with consumers is reduced
Consumers	 Consumer base is small and local (usually middle-class families with young children, the elderly and tourists) Distance with farmers is reduced



Sales	 Usually in proximity rather than at a distance Various routes to market (other SFSCs and long chains) Reduction of steps that connect the farmers to the final consumers
Products	 Different products; fruit and vegetables seem to be most common, as well as specific regional products Tendency to sell organic

Source: (UNIDO 2020) (Kneafsey, et al. 2013)

Thus, a possible solution to foster the economic viability of small and medium size farms as well as processing companies is represented by SFSCs. They are often developed as collective economic initiatives in response to disadvantageous market conditions, and therefore they "shorten" and strengthen links among local entrepreneurs and mobilize local resources in asynergetic manner (Schermer et al, 2006). Among the core strengths of SFSC initiatives, there are: the high levels of performance and trust throughout the network, the emphasis on a shared vision, shared information and decision-making which leads to high forms of transparency and the strong commitment to the welfare of all participants along the chain.

Another crucial strength of businesses operating in SFSCs is their operativity in a network. The creation of networks and relationships within a local area is said to foster positive results not only from the economic point of view but also from the social and environmental one (I. Canfora, Is the short food supply chain an efficient solution for sustainability in food market? 2016). However, despite the well-known social and environmental positive impact of SFSC, the literature points out that these dimensions are often overlook. Indeed, studies that combine the economic component with the social and environmental ones, highlighting how the interplay of these dimensions foster sustainability, are quite limited (Joyce e Paquin 2016).

The economic aspect of SFSCs involves the high level of organization and autonomy, the reduced expenses and costs, the improved quality of work and the presence of fewer or no intermediaries. In many cases, however, SFSC initiatives might face economic uncertainties which take the form of problems with communication, varying production, and sales quantity.

The social aspect of SFSCs lie in their capacity to foster a rapprochement between farmers and consumers, making people actively "shaping" the food system. This favours the creation of direct social relationships based on trust, solidarity, and participation, strengthening social capital and sense of community (Kneafsey, et al. 2013). A second important social component of SFSC initiatives lies in the increase of consumer knowledge and understanding of food, which may indeed foster behaviour change (Kneafsey, et al. 2013). Many case studies of SFSCs analysed in the project SMARTCHAIN have a social component that goes beyond their business structure and affects the community in which they are inserted, by leading and being engaged in social activities.

The environmental aspect of SFSCs is generally characterised by the reduction of the geographical distance between the place of production and of consumption, which reduces the costs of transport and consequently



CO emissions (Joyce & Paquin, 2016; Canfora I. , 2016). This guarantees an improvement of the quality of the food delivered, while making consumers aware of both the provenience of such goods and the reduced environmental impact of SFSC products. The most popular environmental topics cited in the literature on SFSCs are greenhouse gas emission (GHG), energy consumption and promotion of biodiversity.

1.1 Main Types of SFSC initiatives

The interplay of these general characteristics and their relation to specific economic, social and cultural contexts, make SFSC initiatives quite diverse in terms of both their nature and practice throughout Europe. Governing structures, culture, resources, infrastructure and markets conditions are some of the factors that define different types of SFSC initiatives. The investigations highlight how the combination of these characteristics might affect also SFSCs initiatives' social and environmental impact.

In the Task7.2¹, the SMARTCHAIN eighteen case studies have been analysed in their specific characteristics and grouped them into five reference exploitation models which define different type of SFSC initiatives. These five models outline possible ways and new directions for SFSCs, from the perspective of chain members (farmers, producers and organisations). Moreover, the five reference exploitation models look at how the different aspects of their business models bring benefits to the members of the SFSC. However, it is important to take into account that the lack of a clear definition of SFSC and its different concepts and interpretations make it hard to clearly classify each SFSC initiative, as each case study holds a social, economic and cultural specificity (UNIDO 2020).

This section gives an overview of the specific characteristics of each exploitation model, highlighting their strengths and challenges, in order to elaborate a set of business recommendations that could improve their operativity and sustainability. Building on the key aspects of each exploitation model, this section aims at setting the building blocks for the identification of business recommendation.

COOPERATIVE OF PRODUCERS



A **cooperative of producers** allows its members, who produce the same or similar products, to cooperatively produce, process, distribute, market and sell the products.

¹ For more information, please refer to to the deliverable 7.2 of SMARCTHAIN: Inventory of reference exploitation models





INDIVIDUAL PRODUCERS

Many farms are operated as individually owned businesses. The individually owned business is probably the oldest and most common form. One person, family or small group of people owns, controls and conducts the business.

COMMUNITY SUPPORTED AGRICULTURE



The **Community Supported Agriculture** (CSA) model has been in place for many farms for some time now. The traditional model placed substantial emphasis on sustainable agriculture, shared production risk, consumer involvement with production activities, and authenticity of local sourcing.

ONLINE AND OFFLINE MARKETPLACE



Online retail is still growing fast, although fresh online market places in food remain significantly behind general retail. However some great traction for short food supply is observed. Online benefits of being fast, always local and on for 24/7 are evident. Marketplaces offer independent producers a platform/market to sell goods without the burden of a brick and mortar store.



PROMOTION OF ON FARM SELLING

This model has the primary objective to promote/support on farm and online selling of individual producers and to improve the visibility of the farm. This is conducted on local as well as regional and national level.

2. Business Model and Business Model Canvas

Food supply chains consist of a chain of activities that define how a product is produced and delivered. During the various stages of the chain, value is created (Nosratabadi, Mosavi e Lakner 2020). The concept of business model helps capturing the idea of value creation through its ability to design and analyse the value that a business is producing, offering and delivering. A business model is indeed generally defined as "the rationale of how an organization creates, delivers and captures value" (Osterwalder & Pigneur, 2010). For instance, a business model is an instrument able to analyse, design, change, align and innovate new businesses in a



shared and understandable way (Osterwalder, Pigneur e Tucci, Clarifying business models: origins, present, and future of the concept 2005) .

The concept of value within a business model and throughout the food supply chain makes the performance of a business measurable. In general, Business models are reported to hold four main elements that define their value (Chesbrough 2010):

- Value proposition: leading ambition behind a SFSC initiative, comprised by the dominant driver and revenue orientation;
- 2. **Value creation**: delivery of the value proposition. it requires the organisation of the resources necessary to perform the activities described in the value proposition in order to deliver value to the customers;
- 3. **Value appropriation**: it refers to the main activities which are necessary to deliver value to the customers;
- 4. **Value capturing**: ways a business creates revenues through the value creation and delivering processes.

The definition of such values within a business model generally helps to communicate and define the strategy of an initiative.

The business model canvas indeed represents an important tool able to guide entities that would like to engage in SFSCs and define the structure of their operations. Through its nine building blocks, the business model canvas is a tool that facilitates the process of designing a business (**Figure 1**). It is indeed a language for describing and visualising a business model while taking into consideration its strengths and bottlenecks. The nine building blocks are highly correlated and need to be assessed as part of a bigger vision. These blocks cover the main areas of a business: among which customers, value proposition, resources and infrastructure and financial viability (Osterwalder e Pigneurr 2010).

The specificity of SFSC initiatives requires the elaboration of a business model able to balance purely economic consideration with both social and environmental ones. For instance, if a food producer would like to engage in a SFSC initiative, it would have to value the economic viability of this decision. Researches assess that while, the increased economic well-being is rarely attained by producers who engage in SFSCs, their feelings and about their professional activity are highly positive, as they highly value their form of engagement with consumer demands and their responsible production of food. In this framework, the social and environmental benefits of SFSC initiatives come to the picture, requiring the elaboration of a business model which takes into consideration both the social and environmental benefits and costs of such initiatives in the local areas in which they operate while explaining how these aspects contribute to local development (I. Canfora, Is the short food supply chain an efficient solution for sustainability in food market? 2016).

According to the model created by Osterwalder and Pigneur, there are nine building blocks which define the business model of an initiative. They can be explained as follows:



- 1. Value proposition: The products and services a business is offering. As described by Osterwalder (2004), a value proposition "is an overall view of products and services that together represent value for a specific customer segment. It describes the way a firm differentiates itself from its competitors and is the reason why customers buy from a certain firm and not from another."
- 2. **Customer segments**: The target audience for a business' products and services.
- 3. **Channels**: The means by which a company delivers products and services to customers. This includes the company's marketing and distribution strategy.
- 4. **Customer relationship**: The links a company establishes between itself and its different customer segments.
- 5. **Key partners**: The business alliances that complement other aspects of the business model.
- 6. **Key activities**: The activities necessary to execute a company's business model.
- 7. **Key resources**: The resources that are necessary to create value for the customer.
- 8. **Cost structure**: The monetary consequences of the means employed in the business model.
- 9. **Revenue streams**: The way a company makes money through a variety of revenue flows. A company's income.

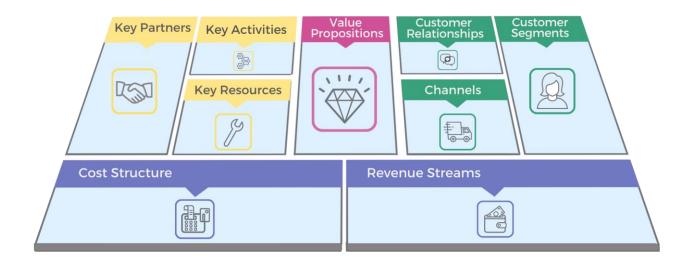


Figure 1. Business model canvas blocks based on Osterwalder & Pigneurr, 2010

As previously explained, the specificity of SFSCs initiatives and their key role in strengthening the social and environmental spheres of the local area in which they operate, requires an analysis of how the social and environmental values of such initiatives are created and assessed. This could be done by analysing the nine building blocks of the business model canvas through social and environmental lenses, as showed by the model elaborated by Joyce and Paquin (**Figure 2 and 3**) (Joyce e Paquin 2016).



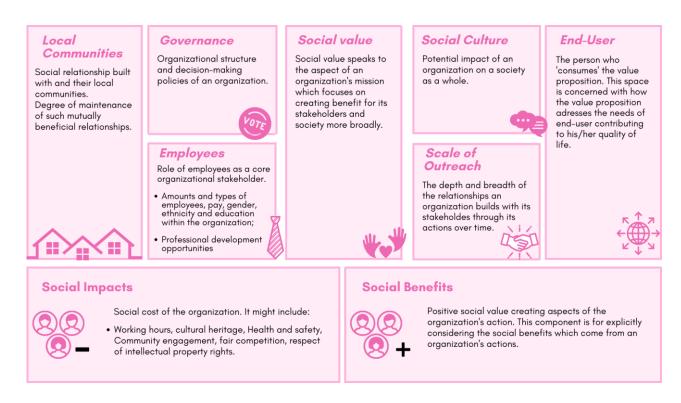


Figure 2. Social business model canvas based on (Joyce e Paquin 2016)

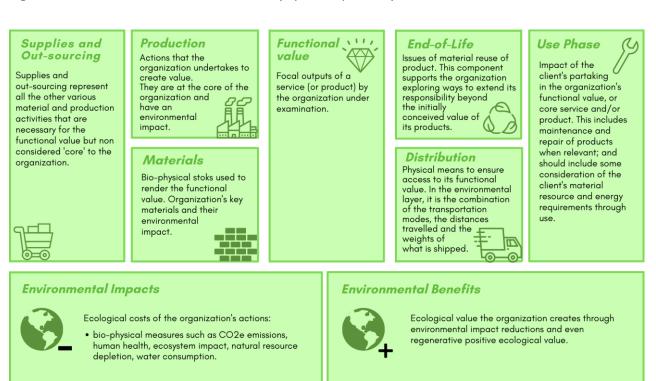


Figure 3. Environmental business model canvas based on (Joyce e Paquin 2016)

These canvases may help actors that would like to engage in SFSC initiatives to identify, plan and manage their operativity in terms of social and environmental impact. In order to better understand how these canvases



can be implemented and how SFSC initiatives make use of them, the following section is going to look at how a business model is designed, by providing users with some knowledge and tools for its ideation.

3. How to design a Business Model

When an organization decides to engage in the design of a business model, it must take into consideration its own context and objectives, challenges and obstacles as well as possible success factors.

For an organization that would like to start an initiative, the designing process of a business model generally involves five different phases which are not strictly linear. During the implementation of these phases, organizations generally face some challenges (Osterwalder e Pigneurr 2010), that are here outlined:

- Mobilize as the first step in business model design, the mobilization phase is described as a process
 of assembling all the elements required for the elaboration of the business model. In this phase it is
 crucial to define a common language to describe, design and analyze the business model and its
 characteristics during all the phases of its creation.
 - The main challenge in this phase is to *overestimate the value of initial ideas*.
- 2. **Understand** this second phase involves researching and analyzing the elements that construct the business model, such as customers, technology and environment. In this phase it is crucial to start identifying both the needs and problems of the targeted market.
 - The main challenges include *over-researching the market and the business model elements,* as well as *conducting a biased research*.
- 3. **Design** this third phase involves the elaboration and testing of viable options by transforming ideas from the previous phase into business model prototypes that can be explored and tested.
 - In this phase, it is important to not suppress bold ideas while exploring them as well as failing into the risk of liking some ideas too quickly, without testing them.
- 4. *Implement* in this forth phase the business model prototype is implemented in the field.
 - The main challenge in this phase is the one of not having a challenging moment, in which weaknesses emerge, during the implementation of the prototype.
- 5. **Manage** the last step involves an adaptation and modification of the business model in relation to market reactions.
 - In this final phase, it is crucial for the organization to elaborate a longer-term perspective. In
 this phase it is also crucial to start thinking about the governance aspect and bring it to the
 picture.

For the organisations that instead are already on the market and would like to improve their performance and/or implementing an innovation, this process generally responds to the following needs (Osterwalder e Pigneurr 2010):

- The satisfaction of existing but unanswered market needs;
- The implementation of new technologies, products or services to the market;



- The improvement, disruption or transformation of an existing market with a better business model;
- The creation of an entirely new market.

3.1 Value proposition

The elaboration of the value proposition is a crucial step in the designing of a business model canvas. To design a value proposition, scholars have proposed a Value Proposition Canvas which is a tool that facilitates its creation (Inomata, et al. 2019). This canvas is composed of two elements:

- Gain creators: in this area it is presented how the products or services you are producing/delivering create customer gains.
- Pain relievers: in this area it is described how the products or services delivered are able to alleviate specific customer pains.

It is crucial in this process to learn about customers' decision-making processes and preferences, understating which are the key factors that create value for the customers (Pokorná, et al. 2015). Developing a value proposition in fact starts with an analysis of consumers' needs and the product/initiative/service strengths. Once the value proposition is designed, it is very important to assess how the value proposition will be communicated (Sheehan e Bruni-Bossio 2015).

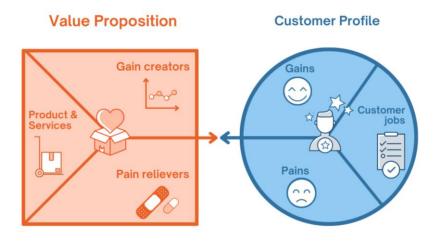


Figure 4. Value proposition and customer profile (Osterwalder, Pigneur, Bernarda, Smith 2014)

Researches highlight that there are two major gaps in the process of understanding and designing a value proposition: (i) the majority of businesses uses the concept of the value proposition but they are unsuccessful in developing and communicating it; (ii) value proposition is often considered as a standalone concept, while it needs to be recognised for the important role it can play in fostering opportunities for value co-creation (Frow e Payne 2011).



In the analysis of the SMARTCHAIN case studies carried out in WP2², six general value propositions were identified highlighting the main aspects that producers are likely to underline when presenting the value of their initiatives. They are described as follows:

- *Food quality and value*: Fresh, tasty, natural, specific high quality, niche products, produced/processed responsibly, traditional.
- Food from an authentic source: authentic, non-manipulated, protected with particular care from (chemical), organic, transparent.
- Nutritional value: Fresh, high nutritional value, natural, safe.
- Sustainability and food security: Less transport and distribution, local supply, less Greenhouse Gas (GHG) emissions, less environmental impact from technologies, no GMO.
- Skills and knowledge: A potential place to learn about food production, about nature.
- *Innovation, nutrition, health and well-being*: Specific diet trends from local plant-based food production e.g. vegan, vegetarian.

3.2 Customers and Customers relationship

In order to satisfy customers, an organization may group them into distinct segments with common needs, behaviours and attributes. For SFSC actors, the close relationship between producers and consumers involves not only the creation of a shared understanding of the products and its origins, but also a process of construction of knowledge, value and meaning between the producers and the consumers (Ilbery e Maye 2005).

The aspect of relationship creation with consumers typical of SFSCs, shows the importance of building relationship capital (Tapscott et al., 2000) which emphasizes the close interaction between the company and the customer (Dubosson-Torbay, Osterwalder e Pigneur 2001).

Nowadays, digital technology also offers a new set of opportunities to identify and understand customers' desires and develop relationships with them. It is therefore crucial when developing a business model to include the customer perspective and aspiration in the picture. Understanding consumer needs must indeed go beyond the demographic of the customers in order to develop a better and broader understanding of their environments, behaviours, concerns and aspirations.

To design the customer segments and help those that would like to engage in a SFSC initiative, to define their customers, there are different tools that can be implemented, such as customer empathy map and personas.

² For more information, please refer to *D2.3 Report on the identification of the typical bottlenecks for SFSCs and potential success factors by application of technological and non-technological innovations*



• **Customer empathy map**: it helps responding to the question of how the initiative's value proposition solves real customer problems. It is indeed important to be able to understand if customers would be willing to pay for such product/service and how customers could be reached. The first step to take in order to use the empathy map is to brainstorm on the possible customer segments that the initiative would like to serve. Then, it is crucial to give these possible users some demographics characteristics and build their profiles in order to then ask the questions outlined in the empathy map.

What does he HEAR? What does he SEE? What does he SAY AND DO? PAIN GAIN

Empathy Map

Figure 5. Empathy Map based on Osterwalder, Pigneur, Bernarda, Smith 2014

• Personas: they are fictional characters that can be created to better identify and represent the different types of users that might use the products or services. By creating personas, it will be easier to understand users' needs, goals and behaviours. One of the key strengths of this design tool is that it helps ensuring that the entrepreneur is designing for real users, taking into account as they are and as they actually behave (DesignLab 2017). It is crucial in this regard to start with a robust research (including questionnaires, interviews, observations) aimed at identifying the targeted customer. While designing the personas, it is important to ensure that the personas you designed resemble the typical user groups.

3.3 Key partners

Building long-term relationships and develop supply chain partners is crucial for designing a sustainable business model. This is especially true for SFSC actors, where the high costs of implementation might undermine their work; the establishment of key partnerships and form of collaborations with various



stakeholders might help to overcome such challenge. Forms of horizontal collaboration can thus be created in order to integrate partners, both technically and logistically, in the business process (Govindan 2018).

Partnerships can indeed be established for three main reasons, here outlined (Osterwalder e Pigneurr 2010):

- Optimisation of economy of scale, meaning the optimization of the allocation of resources and/or activities. This often involves the sharing of infrastructure to reduce costs.
- Reduction of risk and uncertainty
- Acquisition of particular resources and/or activities: by relying on other companies' initiatives, actors
 might extend their capabilities by relying on other actors to furnish specific resources or to perform
 particular activities.

A tool that can be used to define the partners of an initiative, is the partnership canvas, which helps users identifying the aim of such form of collaboration with a specific actor.

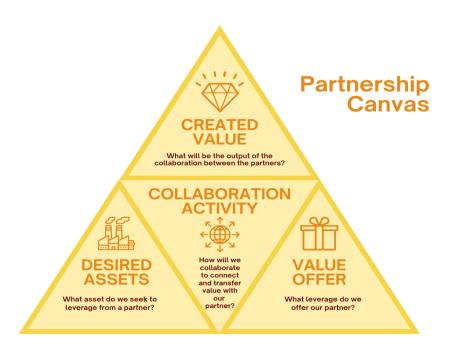


Figure 6. Partnership Canvas based on Osterwalder, Pigneur, Bernarda, Smith 2014



3.4 Key resources

Key resources are at the centre of the business model canvas as they allow a company to create and offer the value proposition they have agreed on, to reach markets while creating connections and relationships with customers. Resources can be classified in various ways: physical, intellectual, human and financial.

3.5 Cost structure and revenue stream

The cost structure of a business model can be of two different types: cost-driven and value-driven (many business models fall in between these two extremes). For the cost-driven business models, costs should be minimised whenever possible, while for the value-driven business models, the focus relies on value creation. SFSCs are characterised by (i) a reduction of transaction costs between participants of supply chains due to shortening of value creation, (ii) a reduction of social inequality and information (knowledge) flow between supply chain participants, thanks to a better exchange of information about products and processes, and (iii) a reduction of external effects regarding products and processes which may achieve a reduction of emissions to the environment.

However, engaging in SFSC initiatives for farmers is more costly and resource consuming. The type of costs and benefits enjoyed by individual farms vary according to the characteristics of their SFSC initiative and the intensity of their relationship with their customers, as well as according to the characteristics of their farm (especially its size and labour force) (UNIDO 2020).

3.6 Channels

Another key area of the business model canvas is the one regarding channels. Due to the seasonality of products and the volume and quantity of products demand in the case of SFSCs, the supply does not always match consumer needs and expectations.

Therefore, it is crucial for SFSC farmers to develop knowledge about the different sales techniques to easily access customers. Nowadays, online communication tools, such as social media, are crucial platform to which farmers can identify and reach new customers. The creation of online platforms can also be crucial with regard to the creation of new channels for selling and purchase. Through digital technology, producers can everyday more easily start and manage an online business.



4 Business recommendations

Actors that would like to start or improve their SFSC initiatives, building on their specific business models, can refer to these business recommendations to help strengthening their performance, identifying areas of development and suggestions to overcome challenges and bottlenecks.

The recommendations are organised according to the building blocks of the business model canvas in order to easily guide users in the analysis of their business model and its main components.

Moreover, due to the specificity of each exploitation model, specific recommendations will be also provided in line with the different areas of the canvas. This will be represented through the sticker of the exploitation model (as described in 2.1 Main Types of SFSC initiatives and in the Inventory of reference exploitation models for short food supply chains, T7.2), in order to provide users who are engaged in a specific SFSC model, with specific recommendations.

4.1 Value proposition:



The value proposition of a SFSC initiative is very important as it allows individuals and groups who would like to start or engage in a SFSC initiative, to express the value of their products while making consumers aware of their products' quality. The SMARTCHAIN case studies highlighted how their products are of high quality, local, organic and natural as well as their production process is sustainable and short. It is

therefore crucial to ensure that these aspects are clearly expressed in the value proposition of the SFSC initiative so that customers can easily understand the story behind the product they are buying.

Moreover, as explained in the deliverable 7.2, the price of SFSC products will depend on the number or quality of the value proposition features, therefore the latter should be able to embody all the features of the product, from the quality of the crops to the way of engaging consumers.

Another key issue to express in the value proposition is the real advantage that consumers might gain from buying SFSC products. This advantage indeed is not only measured in economic terms but also in terms of knowledge creation. Buying such products can help raise awareness on the health, social, economic and environmental benefits of SFSC initiatives. The value proposition should be able to capture this added value, by highlighting how consumers will be also equipped with better information about the nutritional values of the raw materials used, the characteristics of the whole production process and all the techniques used (Rapisarda, Rizzo e Scuderi 2015).

Recommendation



- Identify the value of the products you are producing in terms of both quality and quantity. It is crucial to inform customers through the value proposition to present both the quantified and unquantified value of the products the company is producing.
- Provide information to consumers about the added value of your products and its social and environmental benefits, as well as address concerns regarding place of origin and safety. These might help reaching and informing more consumers.
- Clearly express your value proposition making it clearly understandable to your consumers and broader potential customers.
- Tell a story about your products. Storytelling can be an important way to reach customers, by explaining them how what they are buying is part of a local heritage, from an emotional perspective.





Individual producers and cooperative of producers: having a long history and an interesting "cultural" and "experience" heritage, it is important to express the story of the firm in the value proposition, using various tools (online tours or "product museums", video or other tools for storytelling, also adapting it to social networks).



Promotion of on farm selling: The sale of local products and the direct contact with producers are important strengths and values of this exploitation model. The relationship of trust that arises from the practice of direct selling tends to consolidate over time and become a family tradition. It is important to communicate the link between the local product and the geographical proximity to the farm as well as the close relationship between producer and consumer which makes the purchase convenient even if the price is higher than in a supermarket.

4.1.1 Labeling and branding

The labelling aspect emerged as a source of new knowledge and as a form of relation between producers and consumers. Producers have indeed begun to engage in ethical considerations regarding their products and have sped up the diversification of their production to engage in "greener" forms of production. The labelling system, indeed, provides information and control but also shows consumers' expressions and preferences. For SFSC initiatives, the majority of the SMARTCHAIN case studies reported their products being "natural" and "organic", highlighting their high interest in the obtention of the related labels.



Challenges

- The third-party certifications (quality labels, e.g. organic production, Denomination of origin, regional
 quality labels) can be complex to manage and costly (especially for smallholders, such as actors in
 SFSCs). This might involve an adverse selection process, excluding some categories who might not be
 able to afford the necessary investments to obtain the label.
- Farmers may lack the ability to provide product integrity/authenticity/transparency information for the consumers and customers.
- The lack of specific legislation for SFSCs constitute a problem for the all the actors involved in the chain.
- Small SFSC initiatives have not enough resources to create a round and sound product label and brand and /or neglect these points. Product label and brand design must be selected carefully since it is a key point for the marketing of a product.

Recommendation

- Foster the implementation of monitoring systems which take track of both products and markets characteristics and strengths.
- Establish participatory forms of labelling
 - ✓ Collectively constructed labelling might help the community to network and helps farmers and producers to relate to stakeholders. This process of participation might also foster the uptake of innovation thanks to the exchange of information and practices.
- Collaborate with other SFSC initiatives and/or small producers in the achievement of the quality labels/certifications, by sharing its costs and achieving together the quality standards required.
- In the same way, collaborate with other SFSC producers of your community or municipality to create a common product label, logo and/or brand. It is a good way to reduce costs and increase the impact and market recognition.
- Develop a strategy for promoting brand value by communicating a clear, easy-to-understand message to consumers that expresses confidence about the benefits of the organization.
- Take advantage of novel ICTs technologies. For example, you can add a QR code to your label to be read by smartphone that link to your webpage, your company story, traceability data, culinary recommendations, a video explaining what do you do, etc.



Online and offline market place: Labelling within markets can be not only a guarantee of the product sold but also a security for the consumer, who is thus informed about the nature of the product, its price and its origin. It is therefore advisable to develop a labelling system based on different colours to make recognition and meaning more explicit and easier. For example:

- ✓ Green label: direct sale by a producer, transport no more than 150 km from the place of sale, respect for the seasons, production without industrial techniques and with decent working conditions, and affordability. A way to inform consumers that they can buy the product without problems.
- ✓ Orange label: products sold by intermediaries who have bought them directly from a producer personally known to them, or from a group of producers who can guarantee; in addition to this, all the other criteria of the green label also apply to the orange label. As with traffic lights, orange can be used to encourage consumers to "be careful" and to question the intermediary about the producer behind the product.
- ✓ Purple label: other products from long chains and/or that did not meet the defined sustainability criteria. The use of purple instead of red serves not to label products as prohibited or dangerous but to make consumers "think".

Another idea is to promote the creation of a collective brand that encompasses the usual Market System and includes within it a Product Labelling System and participatory forms of controlling.

4.2 Customer segments



The high degree of interactions as well as the high degree of trust and transparency between producers and consumers make the customer segment one of strengths of SFSC initiatives and their business models. In general, SFSCs satisfy the needs of two types of consumers. On the one hand, those that prefer conventional supply chain but occasionally use short supply systems and on the other those that for health, ethical or other reasons

are interested in buying from short supply systems and avoid conventional chains.

Results from WP4 show that there are two main consumer groups that are the main purchasers of SFSC products. These are (i) families with young children and (ii) the elderly (they like traditional products and have the habit/time to buy directly from producers). In the specific, when describing the family consumer group, results show that the majority of them are families from high SES (Socio-economic status), who have young children and are interested in environmental initiatives (they are concerned about health, the environment,





and they have financial means). Concerning the elderly, instead, their preference for local food seems to be supported by their lifestyle, as they prefer to buy directly from the producer and have more time to source the range of products they prefer from different producers. Moreover, the elderly seem to have more time to prepare meals from locally-sourced products, as such products tend to come in the form of raw ingredients rather than ready-made meals. Other groups that were found to be highly interested in SFSC initiatives are (iii) migrants, who purchase ingredients specific to their culture and (iiii) tourists who have various motivations to purchase local products among which the idea of buying something local to bring back home. This last group of consumers is more attracted to high quality products that both look and taste good.

These groups of consumers generally buy from SFSC initiatives as they are interested in (i) taste, freshness and naturalness, (ii) high quality food because of distinguished taste and/or nutritional value, (iii) socioeconomic benefits of SFSC on a local/regional/national level, and (iv) less environmental impact because of e.g. less transport.

It is crucial therefore for SFSC initiatives to be able to communicate to consumers the added value of the products they produce and how their production supports the local economy, contributing to local development. The growing interest and awareness of consumers about how, where and by whom the food they are buying is produced represent an opportunity for SFSCs to expand to new customer segments and reach, with their value proposition, not only the critical and ethical consumers but also new types of consumers. To do so, emphasis must be put not only on the quality of the products but also on their environmental sustainability and social embeddedness. Results from WP4 show that consumers have varied understanding about the environmental and social impact of food production and food supply chain³. In general, consumers understanding of SFSCs is tied to the concept of local food, it focuses on the origin of food, the connection with the producer and the small scale of food production. Moreover, consumers' perception of SFSCs is generally positive but tend to be confused with other concepts, such as organic food, 0Km, etc.

Challenges

- Limited accessibility and point of sales of SFSC products
- Consumers' concerns about food hygiene and safety in SFSCs
- Consumers' concerns about the authenticity and origin of the products
- Higher price of SFSCs compared to the one of the mainstream offer
- Limited range of SFSC product types
- Demand remains variable and depends on the region, product type and purchase context.

Recommendation

 Know your customers through continuous market research to define the relevant target groups, their preferences and concerns

³ For more information please refer to D4.4 Report on the consumer online survey results



- Educate consumers through targeted campaigns and information; Different consumer segments should be targeted differently (e.g. some would care more about transparency, thus should be provided with information about origin, production and processing methods, others may be better engaged with a story telling approach)
- Join effort with other producers of your municipality, collaborate with them to share market research costs or to sell your products together (e.g., same online shop). It could help also to solve the limited range of SFSC product types.
- Ensure certification and labelling is clearly and easily visible and understandable in order to address consumers' concerns
- Communicate the social impact of SFSCs to consumers in order to engage them in SFSC initiatives.
- Consider exploring new supply channels trying to improve the accessibility of your products and facilitating consumer buying (e.g., selling machines, online marketplaces, etc.)
- If possible, be transparent about the price forming and remark that it is a "Fair price" for farmers Explain how it is constructed to the consumers and why the differences respect to long chain products.
- Increase the involvement of consumers by Participatory Guarantee System (PGS): give the chance to make comments in your web and value your products (e.g. 1-5 stars). This represents an interesting way to certify producers based on the active participations of consumers and build a foundation of trust, social networks and knowledge. Moreover, they represent an alternative to third-party certifications.
- Find out about your consumers using Google Analytics; for example, this is Google's free web analytics service that allows you to analyze in-depth who consults your website. From this service, it is possible to find out the details of what people do when they visit your website, how much time they spend on it and which pages they visit on your website. Through this feature of internal site search, it is possible to have better insights of what people are searching for on your website.

4.3 Channels

4.3.1 Communication channels and tools



SFSC actors rely on the high level of communication and trust between producers and their market. Good, effective communication and information sharing has been showed to be positively related to trust levels in business relationships, in various studies. An effective communication is defined by its relevance, accuracy and reliability and it should be transmitted in appropriate frequency and with an identical message, despite the different channels used (Fischer 2013). Using a set of communication

channels and methods for dissemination and information sharing might play a positive role in building knowledge and awareness as well as reaching diverse individuals and parties (Akyüz e Demir 2014).



Digital technologies indeed constitute an important tool for communicating about the product and service that SFSC initiatives are offering and their value proposition. Elaborating a sound communication strategy when entering into to the market could be a crucial step for SFSC actors to reach their customers and increase their knowledge of their products. However, the costs of elaborating a communication strategy are generally high and involve the employment of external people/ bodies for its creation. In recent times, the costs of online communication are getting cheaper, but a degree of knowledge of online marketing remains necessary.

Small actors can, indeed, make use of social networks to develop their markets. Social media might foster the creation of a further connection between the brand and the consumers, through the creation of personal channels. Through the use of social media, enterprises operating in the food sectors will be provided with a great source of information about actual or potential customers at little or no costs (Elghannam, Arroyo e Eldesouky 2018), helping them to identify potential customers within the market and also to approach potential customers who tend to use social medias as a non-purchase information source and may thus become future customers.

The use of such social ties might help small actors also to understand who else is in the market, as well as who might endorse and promote their individual product in the market (Dentoni 2010). Moreover, the use of information technology might help SFSC to strengthen their close communication with customers and improve the management of their relationships (EIP-AGRI 2015). A further important role that social media could play regarding SFSC initiatives is represented by the possibility to receive feedbacks of consumers about their products and more broadly about their experience with SFSCs. In particular, recent researches have showed that consumers are more and more willing to spend time reading reviews of other consumers not only for the sake of information but also because they would like to know more about other consumers' experiences (Elghannam, Mesias, et al. 2019).

A second important aspect which characterises SFSC initiatives and might play a role in their communication strategy is their environmental and social impact in the local area in which they operate. As part of the community and of their social activities, it is crucial for SFSC activities to be able to communicate their social and environmental impact as well as build knowledge on how their products and services contribute to the production of wider social and environmental benefits. For example, an educational farm might be regarded as a communication tool for both families and children, educating them about the value and importance of such products and building possible customers' knowledge of the agricultural land of reference (Zirhama e Palomba 2016).

It is important when analysing forms of communication to understand which are the elements that might positively affect communication. A study shows that among the most important determinants, positive past collaboration and the existence of personal bonds are crucial. In the case of SFSC initiatives, this is especially relevant as these are characterised by strong producers-consumers trust and interactivity. Knowing your customers, through continuous market research is also crucial as it will help producers to clearly identify their target. Product- and region-specific communication and marketing strategies are indeed most useful when



they address specific consumer needs, meaning that they are able to grasp what consumers want to know and about which products. This information helps consumers understand the higher price point and helps build trust (food safety and place of origin).

Challenges

- Limited budget for marketing
- Lack of knowledge in the field of communication and information
- Problems related to the planning and management of the necessary promotion and communication activities.
- Difficulty in easily obtaining the necessary information about the market situation and consumers' preferences and feedback.
- Low willingness to collaborate on the part of chain members
- Lack of understanding of the importance of the differentiation of the products and services from the conventional chains using the value for money concept. SFSCs produce often niche products that require special marketing knowledge and market research.

Recommendation

- Foster the organization of efficient and high-quality customer service (for example environmentallyand user-friendly design of home delivery).
- Improve the use of social media channels to identify potential customers and let the general public know about your products and value proposition.
 - Social media due to their low costs, their potential to be adopted by young consumers and their ability to collect key information about customers (marketing-advertising campaigns and product development) and receive real-time feedback, are crucial.
- Create a WhatsApp group or similar: it could be used for making purchases orders, but also for sharing news about SFSCs with your consumers, for directly asking about problems/feedback, etc.
- Promote the organisation of door-to-door selling and market fair in order to reach the elderly
- Elaborate precise strategies aimed at fostering a wider availability of such purchasing channels over the territory and to support an effective and widespread marketing among consumer.
- Identify farmers' profiles to efficiently promote SFSCs initiatives. Different types of small-scale farmers will benefit from different supporting frameworks, interventions, and initiatives. (Benedek, Fertő e Molnár 2017)
- Expand the point of sales (online and offline) by including new types of selling channels e.g. "pick your own" and making local food more available in restaurants.
- Address the issue of a higher price by being transparent about communicating (extra) costs regarding environmental and sustainability measures.
- Facilitate forms of technological and ICT knowledge by creating a knowledge bank.



- Involve customers as online and offline ambassadors of SFSC and providing them marketing knowledge as well.
- Build a trusted and recognized brand identity through social media marketing and marketing tools, so you can offer authentic, local, organic products from a trusted supplier.
- Organise fairs, degustation sessions or other kind of events that can engaged consumers and that could be also a good communication tool for getting their feedback.



Community supported agriculture: it is recommended to develop meeting places such as collection points even at the CSA locations themselves, and develop activities within these locations where subscribers are most likely to meet and meet with program organizers in order to increase the sense of community, engagement and exchange.



Promotion of on farm selling: in this exploitation model it is important to focus on the very important connection between producers and consumers, because the greater the distance from the origin of the food, the greater the problems of information asymmetry between producers and consumers become. So, direct selling is an opportunity to improve your own reputation, by creating a direct connection with the consumer which can identify a story, behind the product itself. In order to make this working model stronger and more significant, side activities can be included within the agrifood product direct selling scope, such as promotional and tasting initiatives for products; other ideas could be the organization of "satellite market spots" within the commercial area of reference of each farmer's direct shop and the promotion of quality production within the hotel, restaurant, and café (Ho.Re.Ca.).



Online and offline marketplace: consider that online purchases generally require a minimum of digital skills and in the use of online payment systems and can therefore be specific to some customer segments, perhaps younger and with a propensity for digital. These elements must be taken into account for the definition of the basket of products.



Due to Coronavirus pandemic situation, online shopping has strongly increased in the last year. In this new scenario, producers in SFSCs should maintain contact and relationship with the local customers and community by using online tools, among which social networks.



4.3.2 Sales and purchase channels

Due to the seasonality of products, the volume and quantity of the products vary and farmers and producers might have limited knowledge of the demand for new and even traditional products. Thus, the supply does not always match consumer needs and expectations. SFSC farmers may also lack knowledge about the different sales techniques by which they can easily access consumers.

Taking into consideration these challenging aspects, SFSC initiatives might benefit from the implementation of new channels for selling and purchase. Indeed, online selling and buying is increasing and is something that can be used in every reference exploitation model, as results from WP7 showed⁴. With the advent and spread of new technologies, it will become easier and cheaper to start and manage an online business. Moreover, choosing to use new sales channels, such as popular online channels will allow farmers and producers to relate to customers in new ways.

Especially during the Covid-19 pandemic, when safety was the highest concern and travelling was not permitted, online selling became crucial. Many farmers have increased their sales during the pandemic by using channels, such as social media, to receive the orders and tell the customers when the order was ready, in an easy, safe and fast way.

Challenges

- Farmers have limited knowledge of the demand of products
- Little knowledge about sales techniques, among which digital solutions.
- Most innovations are too expensive to implement.
- Fewer skilled workers and higher costs for smart technology.
- Some sales channels are too expensive to set up and maintenance for small producers.
- Some sales channels demand a lot of time for the producers.

Consumers have limited access to the farm/production facilities; some consumers may be discouraged to acquire products because of the pickup distance, the limited opening hours, difficult access, etc.

Recommendation

Choose your own auto-systems, vending machines, appropriate cooling/transportation systems and

• Collaborate with others for a common marketing. Sharing a brand and the commercial effort with other producers can reduce the cost and can help to engage more consumers (e.g., common online marketplace, home delivery service, etc.).

custom home delivery "boxes" so that customers can access to your products 24h per day.

⁴ For more information, please refer to *D7.2 Inventory of reference exploitation models for short food supply chains*



- Try to use a Marketplace platform in order to reduce costs of creation and maintenance of an online marketplace.
- Foster the creation of new channels to make SFSC's food more accessible. New sales channels also involve new ways of relating to customers, for example introducing the concept of "co-creation" or how "self-service methods" (choose your own and vending machines). This will help reduce transportation/distribution costs.
- "Connecting cities with produce" i.e. ensuring that citizens can reach 100% local and 100% natural long- term food products from sustainable economies through physical collection points or through platforms for online sales.



Online and offline marketplace: Expanding and applying the knowledge of manufacturers through training courses and workshops is essential to improve the management and efficiency of operations. In the particular case of online and offline marketplaces, it helps to develop skills that can be used to manage the e-commerce service. Moreover, for online marketplace companies, they can create their own online store and webpage, contact new potential customers through the community, directly connect with the consumers and be part of a community of users involved with local commerce.



Promotion of on farm selling: The meeting between producers and consumers, necessary in order to communicate the value of the product, can be facilitated through farm stores and the reoccupation of covered markets or public squares. Within these spaces, communication is facilitated through a direct encounter between producers and consumers.



Due to the Coronavirus pandemic situation, online shopping has strongly increased in the last year. It is therefore very important to have online sales channels, not only for large producers and retailers, but also for small local producers. In this framework, it remains relevant to choose and define the model of the proper marketplace, make sure to organize the best home-delivery (planning of deliveries, safety, tools for choosing...) and carefully choose the packaging; the latter represents, in home-delivery, an important form of communication and customer care.



4.4 Customer relationship



The direct relationship with customers is one of the key strengths of SFSC initiatives. Especially when the initiative takes the form of direct selling, a direct and transparent connection with consumers can be created; in this way, consumers will indeed be able to understand the story behind the product they are buying (Rapisarda, Rizzo e Scuderi 2015). The relationship of trust that arises, especially from the practice of direct selling, tends to consolidate over time and to become a sort of family tradition. This makes

the purchase of such SFSC products convenient even if the price is higher than in a supermarket.

To strengthen the relationship with customers, side activities can also be organised, such as promotional and tasting initiatives for products, organisation of markets and promotion of products in restaurants, hotels, and cafes in the local area (Rapisarda, Rizzo e Scuderi 2015).

Relationships of trust can indeed be created between producers and consumers, also by providing consumers with a guarantee of the quality of the SFSC products that is based on the self-reporting of individual producers and the internal control ofthe cooperative organization. This may be able to strengthen the relationships between producers and consumers and constitutes a form of internal control of the product, which is a fundamental aspect of the system of trust that differentiates SFSC from the long distribution chain (Mancini, et al. 2019). Co-creation among SFSC members or with clients could not only reduce costs, but also create greater engagement, by providing customers with the opportunity to monitor and evaluate the quality of the products they are consuming. Examples of this practice are: Participatory Guarantee System (PGS) and Participatory Assurance Systems (PSG) – which are local quality assurance systems will engage your consumers in a more direct community. In the specific, PGSs are locally focused quality assurance systems. They certify producers based on active stakeholder participation and are built on a foundation of trust, social networking, and knowledge exchange through consumer involvement in the oversight of the producers who supply the products. This system increases transparency among producers, processors, and others as they all abide by agreed upon rules through a system of trust that adds value to products and services. These patterns show how social innovation trends are affecting SFSCs, with consumers being more and more interested in cooperate and cocreate with producers.

Moreover, direct contact with consumers may also result in production change to respond to local demand (Kawecka e Gebarowski 2015). Strong communication between farmers and consumers might help farmers to identify local demand and respond to it with their production.

Challenges

- Management and costs of points of sale
- Logistics and transportation costs



- Logistic optimization of the delivery of food to its sale point. In SFSCs there are smaller quantities to be delivered and trucks are not always loaded and often return empty.
- Management and logistics skills

Recommendation

- Foster the organisation of community initiatives, in collaboration with local bodies and administration to strengthen interaction with customers as well as the broader community
- Try to experiment model of direct selling of your products which may promote an alternative networked commercial system that can communicate effectively and reliably values of the food produced.
- Organise side activities within the agri-food product direct selling scope, such as promotional and tasting initiatives for products.
- Explore new ways of establishing customer relations by introducing "self-service methods" (such as pick your own & vending machines)
- Being distribution one of the key factors of the success of SFSCs, actors might work to identify innovative solutions in reducing these costs through collaboration
- Facilitate consumer access to products through cooperative-run stores, e-commers, trade shows, cooking classes, farm visits, encouraging forms of direct sales.
- Take into account consumer feedback because they are a method of quality control of the product and an effective way to correct vendor errors.
- Aim to build community through sales at weekly markets or spaces in public stalls. The meeting can generate the establishment of community services such as grocery delivery, weekly gas or organizing meetings for the new planning of the agricultural season.
 - > Participatory agricultural season planning helps the producer meet the needs of consumers who have the opportunity to choose and understand the timing associated with production.



Introduce measures to reduce the risk of SARS-CoV-2 contamination through an assessment of the risk of consumer infection with SARS-CoV-2 during purchase in different types of SFSCs.



Community supported agriculture: Hosting social activities within a CSA becomes a way to create a community. It gives subscribers the opportunity to meet with each other and with farmers. One way to create networks more easily is also to connect subscribers with their nearest neighbours.





Promotion of on farm selling: Implementing social innovation tools like cocreation and co-operation might not only reduces costs, but also add additional value and will result in more commitment: involving customers as online and offline ambassadors of SFSCs and providing them marketing knowledge as well.



Cooperative of producers: it is advised to facilitate consumer access to products through cooperative-run stores, e-commers, trade shows, cooking classes, farm visits, encouraging forms of direct sales.

4.5 Key partners



Collaboration between producers and other actors might bring great positive advantage to SFSC initiatives. Creating partnerships and forms of collaboration can enable small producers to work with other actors, among which other producers, consumers, institutions and other actors at the local level. Not only forms of collaboration could increase efficiency and supply a larger set of products and at larger volumes, but could

also foster the creation of more sales opportunities at the local and broader level. Especially for small producers, who don't have enough resources to reach more customers, establish new channels or invest in innovation, thus fostering the teaming up with other producers, might be crucial.

In general, these forms of collaboration might help producers in various ways, among which: reaching new markets, sharing logistics, delivery and infrastructures, sharing labelling schemes and communication, promotion and information campaigns.

A crucial aspect regarding collaboration is the sharing of information, best practices and support tools. Therefore, it is important to foster establishment of an information hub that connects people with similar interests for exchange, learning and cooperation. This could help SFSC actors to exploit new opportunities.

Another key aspect in this regard is the creation of forms of collaborations with other producers. In this way, producers could cooperate to overcome the challenges they found while strengthening their role within the supply chain. This can be done by creating organised networks. Group initiatives may indeed be able to overcome problems of planning, management and logistics of SFSC initiatives (Rapisarda, Rizzo e Scuderi 2015). Collaboration indeed makes a "win-win" situation as it creates advantages for everybody. For example, in the case of SFSC initiatives that operate in the form of community supported agriculture, advantages for producers include the upfront payment, guaranteed markets, direct link to consumers, control over pricing, specialized production, convenience, low risk for participation for new or small growers, community building among growers, and a safetynet (Flora 2012). This concept of aggregation within the short supply chain is also considered in relation to the reduction of costs obtained through the formation of cooperatives



or horizontal and vertical networks between the actors of the supply chain for the creation and development of short supply chains and local markets. The relationship that connects small businesses within a local area is capable of producing positive results from an economic as well as an environmental point of view (I. Canfora 2016).

Challenges

• Lack of cooperation between the members and the low level of networking. Without the joint use of financial resources, it is difficult to finance the high costs of production, transport, marketing, investment in production/storage systems.

Recommendations:

- Build networks with social, cultural and environmental associations, even if they are not directly related
 to SFSCs, can be a good way of empowering some of the dimensions of SFSCs itself, such as local
 tourism, social events, local food, environmental awareness. Thus, it is important to not focus only on
 SFSC actors but expand boundaries to other potential partners when it comes to building networks
 over time.
- Explore new ways of establishing cooperation with stakeholders, as it facilitates SFSC innovative
 processes in at least two ways: it reduces costs in implementing innovations that promote value
 creation in the supply chain, and it provides relevant know-how for the implementation of innovation
 itself.
- Try to identify with all the SFSC actors a shared purpose, vision, and principles for your SFSC. Try to share your approach with them, make them a part of it.
- Try to collaborate with other producers and members of the SFSC in order to collective request for credit access (sharing risk reduce the risk) or asking local governments for support (increasing partners increase the impact).



Cooperative of producers: The bottom-up involvement and participation of all stakeholders is aimed at building a market you can trust. The relationship between producers belonging to the cooperative can be created and expressed through the collective writing of rules of participation and through the organization of fixed meetings.

 Try to involve everyone in the organization. Different ways of seeing the same things can be very useful and will also ensure the participation of the smallholder, to get their own point of view, which is very different from the one of big firms, for example.



4.5.1 Knowledge sharing



Collaborating with other actors might help small producers to establish networks of knowledge and peer-to-peer learning. Indeed, research has showed that willingness to participate to SFSCs is negatively affected by the level of farmers' competencies on issues related to the management of a business, such as entrepreneurship, marketing and networking. For instance, farmer competencies affect their involvement in SFSCs

and the participation in such initiative augments their competency needs (Charatsari, Kitsios e Lioutas 2019).

There is thus a central issue on how to acquire or exchange skills to engage in SFSCs in the first place or to better manage such initiatives. Exchange between farmers or peer-to-peer learning are important venues for achieving the training required for engaging in a SFSC initiative. Formal education routes are indeed lacking the kind of training required for engaging in SFSCs (EIP-AGRI 2015).

Recommendations

- Promote and manage local networking initiatives and education programmes: sharing knowledge and experiences, storytelling, tours and visits (online and offline) are important ways for informing consumers, promoting healthy habits and food, sharing the long heritage of individual producers and their families, of cooperative of producers.
- Invest your extra resources in knowledge sharing, which is an important part of the activity connected to SFSCs.
- Pay attention to the generational gap since it is directly linked to the innovativeness, limited ambitious mentality, lack of open-mindedness, and new ideas. Try to involve people of different ages in the SFSC initiative and engage them in peer to peer learning.
- Promote training on the use of the business model canvas and the building of its blocks within your
 organization for your human resources, as the competent application of the business models can serve
 as a tool for the improvement of competitiveness.
- Try to read up about other innovative experiences and best practices to see if they can be replicated in your own activities, in some way. The knowledge of other experiences will provide you with interesting starting points to practice innovation. A large part of the innovations in the SFSCs derives from the inclusion of innovations successfully implemented in other fields or in other geographical areas.



Following the increase in the use of online promotion and sales channels, due to consumer behaviour for the prevention of coronavirus, it is useful - and probably easier - to create more education and storytelling materials and activities, with the participation of various entities at the local level. This could help fostering SFSC's accessibility while making it more attractive for careful and well-informed consumers.



4.5.2 Infrastructure sharing

Given the high costs, cooperation between different small stakeholders might help SFSC actors, especially in the field of logistics. By collaborating with other producers, a reduction of logistics costs, a better utilisation of resources and an improved reliability and efficiency of the delivery can be achieved (Todorovic, et al. 2018). Not only the sharing of spaces but also a sharing of technology and human resources (HR) will reduce costs while creating a greater sense of commitment among SFSC members and consumers.

Recommendations

- Cooperating and sharing costs can lead to major advances in different aspects: using technology for food packaging, guaranteeing extra quality, improving and speeding up production processes.
 Cooperating can help solving (earlier and better) the lack of knowledge in the use of digital technology and ICT, exchanging skills, purchasing specialist services or equipment and participating in training courses in a cheaper way.
 - In many cases, new solutions for more resistant farming technologies (e.g., resistance against droughts, frost, hail) are expensive and not available for small farmers. For this reason, effective post-harvest technologies, like refrigeration, drying, simple preservation techniques are limitedly used. Sharing tools and technologies can be a useful solution to these problems. Integrating shared business processes and technology can help you cut costs, increase productivity, optimise security and make the working environment more comfortable for your employees. For example, farmers could advertise online for free to make their machinery available on certain days: rental can reduce costs by more than 20%.
- Consider that innovation is a key part of the value proposition, giving it a competitive advantage. For this reason, it is very important to use it also as a marketing claim (in the label, in the webpage). You do not need to think necessarily about expensive solutions to be innovative: It may be something as simple and free of charge as to share spaces and resources, register and analyse key data or even to involve the consumer in harvest tasks. Also, try to improve current products/services instead of producing new ones (incremental innovation). A strong collaboration with other stakeholders can be a good way to innovate, too.
- Try to increase your knowledge about specific legislation for SFSCs by networking with other farmers and producers and obtaining support from institutions. Make your voice heard, in order to ensure that your difficulties are understood, or have an impact. If you share your uncertainties, it will be easier to get answers to your questions and problems.
- Create Districts aimed at sharing infrastructure. The creation of districts makes it possible to scale production to avoid the risk of a single facility taking on all the costs associated with post-production systems and sales. This methodology helps not only to lower costs but helps microenterprises to invest more in innovation and product research.





Individual producer: think of cooperating with other producers or entities in order to break down costs, improve quality and face some of the challenges you might be experiencing.

Cooperative of producers: deepen your understanding of cooperation of sharing, by using this opportunity to cooperate also in areas you had never thought of.



- Working collaboratively to share the cost and value of organizing through the
 use of platforms, Shared Production Facilities for storage and packaging of
 primary agricultural production, cooperative supermarkets. These
 collaboratively created services create added value for the consumer.
- Building a community of organic producers and consumers increases the
 possibilities of serving niche markets. Serving niche markets means
 diversifying direct selling or using a lead user approach.



Online and offline marketplace: Invest in cooling systems/equipment and use of vehicles to transport fresh fruits and vegetables, in partnership with organizations creating a shared schedule.

4.5.3 Institutions and administrations

Local institutions and administrations have a key role in the support of SFSC initiatives, by promoting legislation and policies that protect and promote such initiatives. Government should indeed be more actively involved and take initiative to facilitate cooperation. However, many SFSC actors find barriers to access to financing mechanisms due to the eligibility criteria and pre-financing (and co-financing) as well as for the lack of available public funding for SFSCs (EU and national level). It is therefore essential to keep close contact with local entities and administrations, as well as national governments and the EU (Rapisarda, Rizzo e Scuderi 2015).

- ❖ Local administration: they can support SFSC initiatives by introducing retailing policies, territorial planning, offering potential market for the products (for example local food for children at public gatherings). Moreover, they can also introduce a cooperation with public authorities for important questions such as hygienic requirements.
- National government and the EU: they can support SFSC initiatives in multiple ways, among which access to funds, training and knowledge in various fields. Moreover, they can also build SFSCs into



multiple policy areas including health, agriculture, rural development and environment to provide a solution for cross departmental policy challenges on local levels.

Challenges

- Public institution support
- Bureaucracy and Regulations
- The regulatory framework which disproportionally increases the costs involved for smaller producers given the nature of their smaller economic power. They will have to comply with rules of food health, standards, hygiene, and certifications that are often tailored to industrial companies and represent a constraint to the development of SFSCs.
- Lack of knowledge and skills

Recommendations

- Foster the creation of forms of collaboration and sharing with various entities and sectors. This might:
 - reduce administrative duties
 - promote the using of a common brand
 - promote the obtainment of certification, by sharing their costs between producers
 - reduce costs by sharing equipment with other producers
 - make consumers more aware of the added value of the products you are producing by collaborating with research entities
 - increase and improve innovation and research about products quality and environmental benefits of such form of production, by collaborating with universities and research institutes.
- Facilitate and promote local legislation that fosters the development of SFSC initiatives and strengthens their presence in the local area.
- Foster collaboration with various sectors in your local area, such as tourism organizations, bed and breakfasts in order to enhance the promotion of the territory in which the SFSC initiative works and increase their customers



Cooperative of producers: it is crucial to involve all producers in an equal way. It can be very usefull to involve the smallholder participation, in order to get their own point of view, which is very different from the one of big firms, for example. Not involving everyone equally may lead to risk of becoming exposed to unequal relationships with large firms, especially in less structured countries or places.



4.6 Monitoring, data collection and record keeping



Monitoring and assessing a business model is an important step which allows an organisation to understand and evaluate it is performing in the market. In order to evaluate how an initiative is performing, it crucial to take into account two different perspectives: its overall integrity as well as its single building blocks in details. This process is important as it might help detect both weakness and strengths of an initiative's current business model, but also opportunities for innovation and renewal

(Osterwalder e Pigneurr 2010). There are various ways for an organisation to monitor how they are currently operating in the market and identifying current challenges and possible improvement.

Firstly, implementing a SWOT analysis might help doing so by identifying the strengths, weakness, threats and opportunities of the business. By implementing a SWOT analysis, businesses can understand where they are (strengths and weakness) and possible trajectories (opportunities and threats). A SFSC initiative might implement a SWOT analysis when starting their initiative, in order to help them defining their business model, but also throughout their presence in the market.

Another important tool that can help achieving this goal is information technology and its implementation. Information technology can indeed help SFSC initiatives better organise their work and monitor their products more effectively as well as improve data collection and identification of customer preferences (EIP-AGRI 2015). These information on sales might also be published on the organisation webpage in order to increase their visibility and reach broader consumers' knowledge of their products (Akyüz e Demir 2014).

Challenges

• Given the social and environmental impact of SFSC initiatives, it is very important to elaborate more rigorous evaluations and develop appropriate methodologies to 'measure' and 'value' these forms of impact, in non-financial terms (Kneafsey, et al. 2013).

- Establish systems and strategies for collecting consumers' feedback
- Monitor social and media and communication strategy impact on consumers
- Organise local monitoring and control committees with members who represent farmers, consumers
 and local authorities in order to define the level of sustainability, quality and other characteristics of
 the products produced (EIP-AGRI 2015).
 - ➤ A market management committee might monitor products ensuring that they are seasonal, coming from low-input agriculture and non-industrial production methods (Yuna Chiffoleau, Millet-Amrani e Canard 2016)



- A social peer control within an urban market might be a key to collective action within the dynamics of the market in order to maintain consumer confidence in the quality of products, and in the market as a whole.
- Record supply helps production because it can anticipate demand. It is preferable to use a supply chain based on demand and predictive analysis of orders.
- Use innovative methods within decision-making processes such as risk analysis, cost analysis, quick
 charts to make all decisions understandable. In strategic planning it is important to involve every
 member in the planning thus achieving an increase in commitment to cooperation and a decrease in
 reaction time to changes.
- Develop an effective information system in order to improve product flow efficiency by building a more
 effective and data driven communication system. This may help to collect, store, and process daily
 data from farmers/producers and Ho.Re.Ca customers so that the system can predict supply and
 demand.
 - Equip yourself with a management software that can manage the warehouses to keep under control the traceability of the products but also the entire business
- Try to conduct a survey of consumer preferences and the criteria that drive the purchase and choice of specific products, in order to better know them.
- Create a farm notebook using Apps that help to have a complete and clear management of agricultural work. This might allow producers to plan the work and develop a greater ability to intervene in case of emergency.

4.7 Key resources, cost and revenues

SFSC initiatives like all small business might find challenges in financing their operations and affording the resources they need. This may take the form of a lack of capital funding to finance buildings, equipment and product development. For instance, SFSC actors might find problems in borrowing due to their small assets and collaborating with other small companies.

Drawing from the results of WP2.2⁵, it would be relevant for SFSC actors to invest in the implementation of new farming and primary productions methodologies, to make higher revenues possible. Another key point to reflect upon, is the elaboration of a new pricing mechanism, the so-called "product feature depended", for which price depends on the number or quality of Value Propositions features.

In terms of financing, a recent research shows that SFSC initiatives generally receive financial support from two main sources. Firstly, support is received by members who might pay an annual contribution or a weekly

⁵ For more information, please refer to *D2.2 Report on the inventory of technological and non-technological innovations*



fee. Secondly, SFSCs might receive external funding from European funds (Rural Development) or national / regional sources (Kneafsey, et al. 2013).

New sources of finances might constitute an important source for obtaining funds. Among the new financing mechanisms, there are crowdfunding, peer to peer lending, venture capital, which are all additional funding sources to the traditional routes. For instance, equity crowdfunding is a form of financing in which entrepreneurs make an open call to sell a specific amount of equity in his/her company on the Internet. This especially attracts those investors who are interested not only in tangible rewards but also societal ones and are thus more inclined to support sustainable businesses (Vismara 2019).

The convergence to (more) environmentally friendly and sustainable SFSC might lead to other or new activities that could untap new revenue opportunities, such as subscription fees, lending/ renting/leasing fees, licensing fees and donation.

Challenges

- Lack of financial resources
- lack of human capital
- lack of adequate selling points or regional facilities

- Try to engage young entrepreneurs and actors in SFSC initiatives. In many cases, the generational turnover and the diffusion of new forms of knowledge can be vital for the company. Young farmers might be able to help in responding to new opportunities and market changes.
- Foster forms of peer-to-peer learning and transmission of knowledge.
- Foster the uptake of new forms of financing other than the traditional routes.
- Improve knowledge and skills in funds' identification and participation in order to improve opportunities of receiving funds and budgets for your SFSC initiatives.
- Be aware of current public funds delivered to companies that bring a social and environmental benefit to the community and local area in which they operate. The high social advantage and environmental sustainability of SFSC initiatives might foster their financing through public money.
- Introduce public procurement in order to lower the price by e.g. selective taxation between long and SFSC products (potential new revenue streams).
- Ensure a safe and hygienic working environment and high social welfare and training for all employees involved in the food chain
- Invest in achieving certification and labels to enable higher product prices and increase revenue (Cooley e Lass 1998).
- Build knowledge and investments on ICT, online marketing and logistics (for example, implement online storytelling about the benefits for the local community, environment, economy)



- Untap new revenue opportunities such as subscription fees, lending/ renting/leasing fees, licensing fees and donation, due to the convergence to (more) environmentally friendly and sustainable SFSC which might lead to other or new activities.
- Invest in the development of a fundraising strategy
- Establish different forms of memberships to make the support of other values also possible.
- Try to collaborate with other producers and members of the SFSC in order to collective request for credit access (sharing risk reduce the risk) or asking local governments for support (increasing partners increase the impact).



Community supported agriculture: Establish a form of membership so that consumers and the broader community can practically support the values that a CSA (Community supported agriculture) represents and the products they produce, building on the strong trust between producers and the community. Moreover, investing in the development of other funding methodologies such as crowdfunding and fundraising, supported by the target community and the social value of the product might also strengthen the sustainability of the initiative.



Cooperative of producers: Diversify the production in order to cover the whole year, always ensuring high quality and traceability, but also a constant presence of the brand.



Promotion of on farm selling: Increase the number of days of opening of direct markets, or even expand the variety of products offered through partnerships with consumer buying groups. This, however, without compromising the primary characteristic of direct sales or the brevity of the supply chain and therefore the savings obtained by the absence of intermediaries.



5. Social and environmental components: opportunities and recommendations

The social and environmental components of SFSC initiatives need to be clearly expressed in the business model of those who would like to engage in a SFSC initiatives. Results from WP3.6 ⁶(SIAT survey) showed that for what concerns the social dimension, practices linked to the sharing of places, or to the collective regeneration of places/spaces, or to the use of places/spaces belonging to third-party organizations, were scarcely used. Initiatives related to sharing, collaboration and trust among supply chain actors are not yet commonplace. However, for items such as "service design that is centred on the needs of the community, equal pay for gender and redistributive balance", all the SMARTCHAIN case studies performed well. For the environmental dimension, the analysis has shown how within specific sectors the selection of suppliers takes place based on socio-environmental criteria. This confirms the positive trend, for some production sectors, towards socio-environmental issues seen as strategic and placed at the centre of the value proposition.

For this reason, as previously outlined, we can refer to the Triple Layer Business Model which shows how the social and environmental aspects can be expressed across the nine building blocks of the business model canvas. The **social** component of the model implements a stakeholder management approach to capture the mutual influences between stakeholders and the organization, to be able to capture the key social impacts that result from these relationships; for the stakeholders, the model refers to employees, shareholders, communities, customers, suppliers, government agencies, and interest groups. In this way, the social component of the model helps to identify where an organization's primary social impacts are gained and how greater social value can be created. The **environmental** component, instead, focuses on how the organization generates more environmental benefits than environmental impacts. Through this component, it is possible to understand in which segments of its business model the organisation is creating environmental benefits and in which areas, instead, it could invest more, perhaps by the implementation of environmentally oriented innovations. The environmental business model canvas uses a life cycle perspective of environmental impact i.e., life cycle assessments (LCA), which is a formal approach to measure the environmental impact of a product or service at all stages of its life (Joyce e Paquin 2016).

Therefore, in this section, the building blocks of the business model canvas will be analysed from the social and environmental point of view, implementing the social and environmental business model canvas, and specific recommendation for each area of the canvas will be provided, with specificities, if possible, for each exploitation model.

⁶ For more information, please refer to D3.6 Comparative analysis report on SIAT application



5.1 Social business model



Social value

The social value of a SFSC initiative refers to the aspects of the initiative that contribute to the overall goal of creating benefits for its stakeholders and society more broadly. In this case, SFSCs express how social impact can be generated at the community level in different ways. Besides the different ways of assessing the potential positive or negative social impacts of SFSC initiatives, through their whole

life cycle, it is crucial to grasp the positive impact that SFSCs can generate at the local level and beyond it and clearly express it to the customers, through their value proposition. Results from the social life cycle assessment (S-LCA) carried out in WP5.6 showed how social integration and empowerment of both producers and consumers are the key strengths and benefits of SFSC initiatives, thus these aspects should be visibly expressed in the value proposition.

Recommendation

- Express how social impact is produced and how participating to SFSC initiatives contribute to creating benefits and social impact at the community level and beyond.
- In order to increase consumer purchase of SFSCs, the marketing and communication strategies should indicate the social impact of food production at the local level to increase the sense of personal relevance for the consumers. It should also address consumer expectations regarding the food range and seasonality of the products.

Local communities

SFSC initiatives play a key role in the development of the local area in which they operate. Even if the degree of sharing of places and spaces remained limited, as previously explained, SFSC initiatives reported to contribute to the creation of local networks (69%), to the fostering of positive influence on citizens (58%) as well as on public policies (55%), as data from WP3.6 showed. Moreover, results from the WP5.6 and their social life cycle assessment (S-LCA), showed how actors in SFSC initiatives reported the convivial relationship with consumers and the cooperation and solidarity with the local community as key strengths in their work and operations. Indeed, feeling integrated with the local community also led to an increase in social recognition of the work done by SFSC actors. Therefore, it is crucial to:

- Strengthen cooperation and networks among diverse actors within the community in order to establish new services at the community level.
- Foster the creation of mutually beneficial relationships with local administration and institutions



- Consumers are increasingly consciousness about social and environmental issues and ready to engage
 in conscious actions and behaviours. This suggests to invest in the implementation of new activities,
 in order to improve the value proposition and engage the community (implementation of a physical
 or virtual place to learn, discuss and share about food property and characteristics, safety processes,
 involving students or tourists. It is possible to organize the involvement of the community in activities
 of general interest).
- Involve the whole community in asking about their needs and ideas on food and SFSC transparency (labs, focus group, activity co-design, short courses, peer to peer educational experiences...).



Online and offline marketplace: Create a network of farmers and producers ready to intervene in case of too high demand for raw materials and ingredients, and an additional back-up network (Ho.Re.Ca customers) to be contacted in case of a surplus in production by farmers/producers.



Community supported agriculture: Build common structures among members. Within these common spaces, interaction between members involves not only sharing information, but also serves to place CSAs within networks and relationships. it is a way to network more easily, connecting subscribers with their closest neighbours, creating sub-connections between subscribers who live closest together and can support each other in this way.

Governance

The governance of a SFSC initiative refers to its organisational and decision-making policies and practices. In this regard, cooperation and communication among SFSC members, both horizontal and vertical are key during defining and operating the business model. Strong communication creates mutual understanding and shared responsibility for running the business and achieve mutual goals.

Data from WP3.6⁷ showed that 70% of surveyed organisation involve customers (people) in the decision-making processes, 55% involve other producers in the decision-making processes and 47% involve customers (companies) in the decision-making processes. Therefore, in terms of governance, SFSC initiatives may act to:

⁷ for more information, please refer to D3.6 Comparative analysis report on SIAT application



Recommendation

- Strengthen consumer's engagement in the governance of the SFSC initiative and create practices of co-creation and co-responsibility.
- SFSC members and customers can co-finance specific activities or products they consider to be in line with their needs and requests. This might reduce cost, make investments feasible when the firm does not have specific financial resources and ensures more commitment.
- An effective and constant participation of the community in the co-creation of processes and activities
 in production can let the group of consumers grow and grow, and it can also be attractive for new
 SFSC members.
- Give evidence of how community involvement in activities brings an important economic and social impact for the whole community and not only for the SFSCs.
- foster a culture of discussion and collaboration, team spirit among organizational members by structuring informal conversations about current and future activity plans.
- Provide hands-on and non-practical training programs, both individual and group, focused on implementing innovative solutions. This would help farmers and professionals avoid knowledge gaps and share their experiences and best practices. One idea to develop could be to collect rules and regulations, quidelines and best practices.
- Use innovative methods within decision making processes such as risk analysis, cost analysis, quick charts to make all decisions understandable, and in strategic planning such as involving every member in planning and increasing commitment to cooperation as a way to decrease reaction time to changes.



Cooperative of producers: The social impact developed by the emergence of collaborations between producers, farmers and consumers generates spaces of interaction for the exchange of ideas. These moments of sharing may lead to an increase in partnerships and entrepreneurial initiatives in the territory. The theme of exchange results in the development of mutual respect and a sense of responsibility through regular interactions that influence farmers on new production and marketing techniques.





Community supported agriculture: The CSA is defined as a care-based resource management system. This propensity for care on the part of the members is at the basis of the organisational form, not only as good practice but also from the perspective of resource management, and the propensity to create links between growers and consumers and between people and nature. This should be strengthened in order to achieve sustainability and inclusive governance.



Online and offline marketplace: the use of social peer control within an urban market may be used as a fundamental key to collective action within the dynamics of the market in order to maintain consumer confidence in the quality of products, not in the individual producer but in the market as a whole.

Employees

Employees play a key role in SFSC initiatives and it is crucial to ensure they receive adequate professional development opportunities so that they have the knowledge and skills to effectively engage in the initiative. Results from the social life cycle assessment (S-LCA) also showed that, probably because of the SFSC companies small size, there is no trade union or organised form of association among workers and that, in terms of salary, many of the companies analysed have an average salary that is below the minimum living wage of their countries. However, SFSC companies are reported to have less gender discrimination, less corruption, fair competition, and appropriate working time, compared to other chains.

- Foster the participation of young people and entrepreneurs in SFSC initiatives. Young farmers might be able to help in responding to new opportunities and market changes.
- Foster the investment in peer-to-peer learning and transmission of knowledge opportunities
- Foster the participation of the most vulnerable groups in SFSC initiatives by partnering with local associations or NGOs and elaborating suitable activities for them.
- Ensure that equity in terms of gender, payments and working conditions is ensured among all stakeholders.
- Foster the creation of associations, or regularised trade unions in order to collect the interests of workers operating in SFSC. This might, indeed, strengthen the inclusion of workers and defend their interests.



• Strengthen staff capacity by organizing seminars, workshops, meetings on negotiating power, joint use of resources, product development, broader use of information technology, social media, advertising campaigns, etc.



Online and offline marketplace: A market management committee should monitor products, in order to ensure that they are seasonal and coming from low-input agriculture and non-industrial production methods. This aspect cannot be only based on the direct link with producers, which is not always a sufficient guarantee.

Social culture

SFSC initiatives highly contribute to the creation of a broader social impact that goes beyond the local level. Firstly, they are able to generate employment and opportunities at the local level, especially in the form of entrepreneurship (COMREC 2014). Secondly, they have the potential to cooperate with other actors at the community level in order to favour the development of services which could have a high social impact, among which the creation of learning opportunities. Results from the social life cycle assessment (S-LCA) showed that 60% of the respondents operating in SFSC initiatives, are running at least one other activity apart from food production, which indeed remains the core business. The complementary activities which are more broadly undertaken are pedagogical/educational (19,8% of respondents), tourism (12%) and cultural events (11,4%). Therefore, SFSC initiatives might keep engaging with other sectors at the community levels in order to strengthen their social impact and create a broader social culture.

- Foster the organisation of educational activities and learning activities for children and the broader community.
- Partner with the tourism sectors in order to foster the organisation of cultural events and foster the link between traditions, food and heritage.
- Creating places to educate the younger generation, to learn from nature, agriculture, food production.

 For example, cooperating with professionals who have expertise in educating children and can introduce them to the farm environment.
- Engage the younger generation in the work by inspiring them and applying the added value of their innovative ideas. Through: Open tours of farms; Tasting tours of local products.
- The shared management of processes such as community composting on the territory between citizens, administrations, and agriculture, can have an important social value. This innovative shared system allows citizens to develop a better sense of awareness about the management of their organic waste and thus developing a food consciousness. This means that the better the quality of the organic



waste conferred, the better the quality of the compost obtained, leading to the elimination of chemical soil conditioners.



Promotion of on farm selling: Direct selling can reconfigure the relationships between producers and consumers, taking on a feature of social justice that allows the farmer to enhance the value of his production and pass on his knowledge and his link with the territory.

End-user

Consumer segmentation is necessary in order to identify a target audience willing to pay more for a product with higher added value due to social impact. After segmentation, targeted communication is necessary to reach the new target group. Finally, the product offering can be tailored to the target groups using the opportunities of the identified niche market.

- Foster the identification of customer segments and develop strategies aimed at targeting each specific consumer group.
- Communicate to customers that by buying locally produced products they are supporting local farmers,
 economies, and communities. The price of the product is indeed not the only determining factor, but
 also the perception of the community is very important. It identifies consumers who are interested in
 supporting cooperatives and local products, those who prefer to buy products from cooperatives
 because they trust them and do not find these products unreasonably expensive if reliable.
- Keep the information about SFSCs very simple in order to engage the end users as much as possible.
 Consumers have to be considered the cornerstone of the SFSCs, but very few of them take the extra effort to search for the details behind SFSC stories and products. So generally, the easier the concept is for them to understand, the greater is their awareness.
- be clear and design labels that contain readable and understandable information, that allow anyone to save time. As usually consumers don't want to waste it reading labels that are difficult to understand.





Promotion of on farm selling: think of installing a vending machine for products so that customers can access them when they prefer and in a convenient location. Farmers have a new way to sell fresh food products direct to the public without having to deal with customers, especially if they do not have much time to spend on buying products. It can be applied to a high variety of products and it is also very recommended in this Pandemic period to avoid direct contacts with people.



Cooperative of producers: For the introduction of new products, typically market research should be carried out, but a large-scale market research study can be very expensive. If you are a cooperative of producers you can use the lead user approach which is a cheaper alternative for collecting information on new market trends. Lead users are consumers which are able to identify needs today that will play an important role in the mass market in the future. It allows to create innovative foods based on consumers' needs and ideas.

Scale of outreach

The relationship of trust that SFSC initiative establish constitutes one of the crucial point from which those involved in SFSC initiatives can define their scale of outreach. In the specific, given that the main consumer groups of their products are families with younger children and the elderly, it is very important to be able to capitalise on these groups, consolidate the relationships that producers are able to create with them and create a sort of family tradition. Through the strengthening of social capital within the community, consumers might also start engaging in behavioral changes such as changes in eating habits with regard to public health effect, increase in social and environmental awareness in relation to shopping habits, etc. therefore, it is crucial for SFSC initiatives to strengthen their scale of outreaching while investing in involving new consumer segments.

- Organise promotional and tasting initiatives for products and promote products in restaurants, hotels and cafes in the local area (Rapisarda, Rizzo e Scuderi 2015).
- Involve families with younger children to foster overall family awareness on the importance of good nutrition.
- Use new channels to inform about SFSCs and its positive social and environmental impact (ex. New communication channels, among which social media).



• Developing an information hub through which people with common interests can exchange information, facilitate learning and develop cooperation.



Promotion of on farm selling: Try to reach and involve other different and unusual, target groups: for example, promote farms and members especially in the most popular places frequented by tourists, so that they are aware of nearby opportunities such as local specialty stores. A good idea could be offer them tasting tours involving the products of collaborating partners, leisure activity programs, and corporate tours through the creation of collaborations with hotels, tourist offices, and restaurants in the region.



Cooperative of producers: Make products accessible not only within the region but throughout the country through participation in organized events, workshops, exhibits, and educational seminars. For example through the creation of a regional corner in the supermarket and point of sale, collaborations with agritourism chains, use of collaborative platforms.

5.2 Environmental business model canvas



Functional value

SFSC initiatives produce local and traditional products in a sustainable way. Consumers of such products generally claim that they choose to buy local food from SFSCs because products are seasonal, freshly harvested, more natural, more supportive of the local community, and more environmentally friendly in terms of reduced food miles. Moreover,

consumers are more and more aware and interested in environmental issues and their selection of suppliers is becoming recently more based on socio-environmental criteria. The value proposition should therefore explain how the environmental benefits are produced by SFSC initiatives.

- Clearly express how SFSC products are contributing to environmental sustainability and how this may affect the environment.
- Clearly provide information about how SFSC products bring a positive environmental impact (refer to CO2 emission, water consumption, human health).



- Collect data, measure, promote the eco-rating as a tool to recognize the value of a company's environmental commitment.
- In order to monitor the value of environmental sustainability of farms we recommend the use of Ecorating. The latter is a tool for the analysis of the sustainability of agricultural companies assessed through the individual good practices implemented. The state of application of the system is evaluated according to environmental aspects, legislative compliance and improvement of environmental performance. Through Ecorating it is possible to measure and quantify the biocapacity of the planet saved, that is, the fertile area available to regenerate what we consume and absorb the carbon dioxide we emit and is expressed in hectares of fertile land.

Supplies and outsourcing

Despite the high environmental impact of SFSC initiatives, data from the SIAT survey showed that there are some limitations in collaboration among SFSC actors also for what concerns the environmental sphere. Data shows that the areas in which collaboration is lower are collective investments (31%) and collective request for credit access (28%). This is significant since it highlights that there are some limitations in financial collaboration among the SFSC actors.

Recommendation

- Foster the creation of collaborations with other entities in order to strengthen your environmental impact and face challenges.
- Collaborate with local authorities such as national parks or organized fairs are of great importance in order to create a network of environmental and social collaborations that must always be taken care of and increased.
- Implement composting activities to be used by the municipality and ensure correct management of the composting process and correct use of the compost obtained, guaranteeing the closure of the zero kilometer cycle. This creates a supplementary income for the farms that activates this circuit.
- Eliminate chemical amendments: local products can be obtained from organic farming fertilized exclusively with organic amendments, obtained from their own organic waste, which come back to new life as compost.



If you are a **Community supported agriculture**, you can practice community composting by sharing compost with citizens and local producers.





If you are a **Cooperative of Producers** you can share the costs of implementing practices to reduce environmental impact, such as consultancy, supplies, paperwork and certification.

Production

The actions that any organization undertakes to create value have an environmental impact. The value proposition should explain how the environmental benefits are produced by SFSC initiatives.

Consumers of products of SFSCs sometimes choose to buy local food because products are more environmentally friendly in terms of reduced food miles.

There are some aspects of the production processes that can be managed in such a way as to further reduce the environmental impact and support positive and sustainable behaviours among the community. Moreover, the implementation of technological innovation can help improving the environmental sustainability of production.

The following recommendations provide some insights for improving the impact of production in SFSCs.

- Use specific labels to remark the quality of your main activities. The most useful ones can be related
 to the clean label concept (no additives, natural, free of chemicals, non-GMO), and to the local and
 traditional characteristics of the foods (local product, traditional product, food produced in the region,
 familiar recipe).
- Highlight that your production is free of chemicals, has low carbon footprint and uses a compostable packaging. All these activities derive from an environmental friendly approach, which will be a competitive advantage for your business.
- Invest in research to better understand how production can be managed in several ways. producers should be able to conduct their own market research and identify the relevant target groups, as different products in different regions attract different consumers.
- Stimulate the practice of integrated or eco-compatible agriculture. It uses parasites, instead of various artificial products such as pesticides, insects or bacteria that fight them. Furthermore, it prefers techniques labelled as "traditional", for example crop rotation thanks to which the soil is enriched and



- never becomes unable to produce. The idea, in general, is to conserve the soil, the substances it contains and its biodiversity.
- Bring improvements such as digitization or geolocation in SFSC, which means allowing those who work
 the land to achieve maximum precision regarding the use of substances and resources based on the
 type of land and its extension and even understand what is the best time to manage the various
 stages of cultivation. In this way, waste is reduced to a minimum and the income rises.
- Invest in smart water use, for example by:
 - Choosing crops with low water demand;
 - Using small storage of rainwater for irrigation;
 - Using drip system for irrigation;
 - Implementation of software such as Arduino for automatically controlled irrigation depending on soil moisture content.



Individual producers: Building clear differentiation from other organic products through the use of local and certified production requirements can help organic, local and sustainable products to reach a new market/target. This can be done by using an internal control system, PDO and PGI certification, or transparency supported by digital tools, through the creation of small warehouses for customized supply of perishable foods. Moreover, individual producers can think of tackling climate change through the use of innovative products e.g. Water Retainer (VízŐr®) that can retain water in the soil, or ground cover plants to maintain moisture in the soil.

Materials

In many cases, SFSCs might encounter problems in achieving a good quality of raw materials due to a lack of expertise in the production of the raw material and a lack of people who are experts in agricultural production. Moreover, many producers might lack knowledge of new farming methods and technologies, a factor that hinders the possibility of finding appropriate innovative solution for various problems.

Major advances in technologies for environmental friendly and smart packaging provides less waste, longer shelf-live, provides a more attractive look & feel of products in the shops which addresses the concerns of consumers: quality, food safety and sustainability. Proper packaging become more necessary when online selling will increase and food will be sold via (combined) boxes. However, producers might lack knowledge of processing and packaging technologies, a factor that makes it hard for them to identify the exact technological problems and subsequently the potential solutions for them.



Recommendation

- Use packaging only for products that need it
- Invest in new packaging methods (such as biodegradable packaging with smart technologies) which make longer shelf live possible and less waste
- Ensure that packaging includes accurate and informative labelling and nutritional information
- Prefer bio sheet for active mulching of soils in recycled paper. Unlike classic plastic sheets, the bio sheet can be milled into the ground (without being removed and disposed of), reducing time, effort and the introduction of plastic materials into the environment.
 - > Use in the fields of Biotelo for active mulching made of recycled paper, certified compostable. The sheet is treated with natural substances that are partially water-repellent and active against mold and mildew. In addition to ensuring a reduced presence of alien weed species in the field, it protects the soil from temperature fluctuations, ensuring a safer and more productive cultural cycle. Biotelo is compatible with organic farming and can be milled into the soil without being removed and disposed of, this greatly reduces the time, effort, human and economic resources involved in disposal, eliminating the release of plastic into the environment.
- Use compostable seeds instead of polystyrene: even if polystyrene is better cut, it is practically impossible not to disperse it in the environment, cellulose-based materials are functional.
- Integrate innovative technological systems that are part of Industry 4.0 such as IoT (Internet of Things). Bringing improvements such as digitization or geolocation into this context, means first of all allowing those who work the land to achieve maximum precision regarding the use of substances and resources based on the type of land and its extension and even understand what is the best time to manage the various phases of cultivation. In this way, waste is minimized and yields go up. The use of these new technologies reduces expenses and increases the percentage of production at the same time. In addition, thanks to the data obtained with the use of the instruments of agriculture 4.0, it is possible to obtain products with a very high level of quality.



In case of **online marketplace:** foster the use of airtight containers that would ensure products good conditions for consumption after delivery. By adopting these selling strategies, consumers would have no worries about freshness or refrigeration conditions when purchasing in an online environment (Elghannam, Arroyo e Eldesouky 2018).





If you are a **Community supported agriculture**, organise groups of collectors who might collect, wash and rearrange packaging.

Use phase

Those that generally buy SFSC products tend to point health and nutrition as the major reasons for buying them. This shows how consumers tend to a greater focus on health rather than the environmental implications of organic production, although the environmental aspects are also appreciated. Therefore, it would be relevant to invest in this component by showing how SFSC products not only create positive nutritional impact but also an environmental one.

Recommendation

• Communicate to customers not only the nutritional impact of what they are buying but also its environmental one, in different ways such as: easy-to-read information on CO2 emission, water waste, etc, on social media channels or on the packaging of the products.



Community supported agriculture: raising awareness and communicating the nutritional impacts due to healthier eating, to consumers, is your goal. Thanks to the participation of CSAs, people are eating more vegetables that are fresher and more varied. It is important to guarantee the most informed and environmentally and socially aware consumer a positive environmental impact, food security, and a service to the community provided by the farming community, for example through food donations.

End of life

The end-of-life corresponds to issues of material reuse of a product, so that the organisation considers ways to extend its responsibility beyond the initially conceived value of its products. In this regard, data from the SIAT survey show that actors operating in both long and short chains are more advanced in circular economy initiatives compared to those operating only in SFSC who are more advanced in setting socio-environmental criteria for their suppliers. It is therefore crucial for the actors involved in SFSC initiatives to carefully address this issue and find ways to improve the value of the products beyond their conceived initial value.



- Selling SFSC products means being able to understand your potential customers and use all the information you gather about them to convince them that you are offering a quality product with a particular value (given by its very low impact on the environment, for example). You have to know exactly who you are dealing with: it means knowing their fears but also how they want to improve their lives thanks to the product (or service) you are selling.
- Try to improve your performance in SFSCs by extending the shelf life and expiry date of the products, for example. This is a very little change of the product itself, but this innovation is still important for competitiveness and long-term success, as it offers greater value to customers and stakeholders needs. Remember that innovation must lead to a change; it is not only directly related to an invention.
- Promote small composting chains in which farmers and producers can manage the process of composting close to their firms. The latter uses the natural process of aerobic decomposition of the organic fractions, combined with a technological innovation that allows its control and acceleration, guaranteeing the hygienic and sanitary aspect. It is useful for obtaining quality (and absolutely organic) compost to be reused on the land as well as to considerably reduce the environmental impact; moreover, it is not expensive, which means a reduction in transport costs, an elimination of transport and disposal costs currently paid to industrial plants.
- Eliminate chemical amendments: local products can be obtained from organic farming fertilized exclusively with organic amendments, obtained from their own organic waste, which come back to new life as compost.



If you are a **Cooperative of Producers** you can manage the process of composting at the cooperative location itself, making it available to all members.



In the case of **online marketplace**, try to use online communities to gather information from customers and inform them about how they can improve their lives thanks to the product offered.

Distribution

Local food was generally seen to be seasonal, freshly harvested, more natural, more supportive of the local community, and more environmentally friendly in terms of reduced food miles (Warsaw University of Life Science 2019). Therefore, it is crucial to distribute and sell such products in a sustainable and environmental friendly way. Studies about customers' preferences for distribution, reported mixed results with some saying



that home delivery was more sustainable than travelling to the producer to purchase food, whereas others felt that extensive home deliveries would incur an environmental cost. For achieving a higher environmental impact, it is indeed important to reduce the distance the food has to travel, bringing about environmental benefits among which reduced CO2 emissions, air pollution, traffic accidents and noise pollution (Mastronardi, Marino e Cavallo 2015).

Workarounds were suggested, such as customers picking up produce from collection points (e.g., workplaces), and having specific zones for regional deliveries. It was also suggested that home deliveries could be reserved for those who would benefit from them the most, such as senior citizens who are less mobile.

Recommendation

- Guarantee sustainable pick-up from collection points (such as workplaces)
- Establish specific zones for regional deliveries
- Organise home delivery especially for those who would benefit the most from it, such as the elderly.
- Organise few trips between the producer and the consumer, but with large quantities each time, such
 as in a truck
- prefer eco-sustainable means of transport: the ideal condition would be an electric vehicle powered by a panel in the company (thus also controlling the emission and not just moving it, such as with an electric car powered elsewhere).
- it is advisable not only to use sustainable means of transport but also to make their supply low environmental impact, for example through the installation of a shelter inside the farm itself, the creation of biogas from cattle manure. Fuelling through power grids that are derived from conventional sources displaces emissions without abating them. The solution is to self-produce energy through the raw material present on the farms, creating sustainable circuits.



Community supported agriculture: The distribution of food at collection points and its subsequent collection by subscribers aims to reduce the number of kilometres travelled by food, both from the point of view of kilometer 0 and from the point of view of environmental sustainability and community building. It is important to strengthen the presence of these collection points in the territory as they become meeting places between producers and consumers and between consumers who, by building a network, can be encouraged to collaborate with each other by collecting the boxes of others, to further reduce the miles travelled by food.





Promotion of on farm selling: Direct sales allow consumers to obtain fresh, healthy food at more reasonable prices and promote ecological sustainability, represented by reduced food miles and carbon emissions. Fewer food miles can translate into a lower level of environmental pressure due to the reduction of key factors such as air and soil pollution, loss of biodiversity and noise pollution.

6. SFSC and Covid-19: business recommendations



The COVID-19 pandemic and the containment measures government applied worldwide, have profoundly impacted food supply chain, from producers to consumers. Besides the major challenges that food supply chains are experiencing, it is important to look at what the pandemic could teach us and if there are some opportunities to rebuild supply chains, building on their sustainability and resilience. The pandemic increased both producers and consumers awareness of how important is to be resilient and the key role that a strong and trustworthy relationship between producers and consumers can play. Moreover, since

the start of COVID-19 the hygiene and safety part of food became more relevant and showed how there is also a growing awareness among customers and members of SFSCs of the social and environmental impact SFSCs could make; SFSCs indeed are a great place to educate and engage the community about healthy food and the environment. Another key aspect that became relevant during the pandemic was the increase in importance of doing business online.

There are mixed views about the impact that the pandemic is having on SFSCs. While for some, SFSCs and local productions have felt less the effect of international restrictions, given their strong presence in the territory and their proximity to the consumers, others have reported that the pandemic has negatively impacted their businesses. Results from the analysis carried out in WP5.6, which asked SFSC actors about the impact of Covid-19, reported that the pandemic had both a positive (34.29%) and a negative effect (40%), while for others it had no effect. This shows how a significant variation was registered depending on the country specificity where the SFSC business is working.

As a matter of fact, the pandemic has contributed to the development of a new form of awareness about the importance of being resilient, of having knowledge of local farms and developing both social and environmental responsibility. It is therefore crucial to strengthen our research base and understanding of SFSC initiatives in order to improve their performances.

This paragraph will look at some of the opportunities for SFSC during and after this pandemic and some of the areas in which SFSCs could invest.



- One of the major and most visible change that the pandemic has brought about is the rise in online selling. As explained before, there are some SFSC initiatives that are already benefitting from selling their products online, such as the ones in the "online marketplace exploitation model". However it is important also for the other exploitation models to navigate the opportunity to sell their products online, also as a way to keep their relations with their consumers. Another important area regarding the distribution channel, is the improvement of delivery service in agri-food and the exploration of new ways to deliver their products to their customers, such as door to door selling.
- A second important aspect regards to the use of social media and communication tools. As the
 restrictions due to Covid-19 have impeded the organisation of local markets, it is important to keep
 communicating with their consumers and keep building relationships with them. In this circumstance,
 updating social media channels, with tips to cook local products, recipes and other information
 regarding your own SFSC initiative might become crucial to keep involving your customers and also
 open the doors to new possible customers.



Bibliography

Aguglia, L. F. D. (2009). Direct Selling: a Marketing Strategy to Shorten Distances between Production and Consumption. 113 EAAE Seminar "A resilient European food industry and food chain in a challenging world". Crete, Greece.

Allegra, V. C. B. (2014). The logistics of direct sales: new approaches of the EU. *Italian Journal of Food Science*, 26(4), 443-450

A. A. Akyüz, A. Y. Demir. «The Role Of A Civil Society Organization In The Development Of The Domestic Organic Market In Turkey.» *İ.Ü. Siyasal Bilgiler Fakültesi Dergisi*, αρ. 54 (2016): 43-61.

A. B. Szerb, T. Horváth, B. Szerb, A. Csonka. «Logistic Challenges In The Short Food Supply Chains.» *Regional and Business Studies* 10, αp. 2 (2018): 19-27.

A. Elghannam, F. J. Mesias, M. Escribano. «Consumers' Perspectives on Alternative Short Food Supply Chains Based on Social Media: A Focus Group Study in Spain.» *Foods* 9, αρ. 22 (2019).

A. Joyce, R. L. Paquin. «The triple layered business model canvas: A tool to design more sustainable business models.» *Journal of Cleaner Production* 135 (2016): 1474-1486.

A. Kawecka, M. Gębarowsk. «Short Food Supply Chains – Benefits For Consumers And Food Producers.» *Journal of Agribusiness and Rural Development* 3, αp. 37 (2015): 459–466.

A. Osterwalder, Y. Pigneurr. *Business model generation: a handbook for visionaries, game changers, and challengers.* John Wiley & Sons Inc, 2010.

A. Trebbin, M. Hassler. «Farmers' producer companies in India: a new concept for collective action?» *Environment and planning* 44 (2012): 401-427.

A.W.Gilg, M.Battershill,. «To what extent can direct selling of farm produce offer a more environmentally friendly type of farming? Some evidence from France.» *Journal of Environmental Management* 60, ap. 3 (2000): 195-214.

Akyüz, A, Kai A. Y Demir. «The Role Of A Civil Society Organization In The Development Of The Domestic Organic Market In Turkey.» *Proceedings of the 4th ISOFAR Scientific Conference*. 2014.

- B. Ilbery, D. Maye. «Food supply chains and sustainability: evidence from specialist food producers in the Scottish/English borders.» *Land Use Policy* 22, αp. 4 (2005): 331-344.
- B. M. Henehan, B. L. Anderson. «Considering Cooperation: A Guide For New Cooperative Development.» Department of Applied Economics and Management, College of Agriculture and Life Sciences, Cornell University, 2001.
- B. Rocchi, F. Randelli. «Farmer direct selling: the role of regional factors.» *Regional studies* 54, αρ. 8 (2020).

Benedek, Z, I Fertő, και A Molnár. «Off to market: but which one? Understanding the participation of small-scale farmers in short food supply chains—a Hungarian case study.» *Agriculture and Human Values, volume* 35, 2017.

C. B. Flora, C. Bregendahl. «Collaborative Community-supported Agriculture: Balancing Community Capitals for Producers and Consumers.» *Int. Jrnl. of Soc. of Agr. & Food* 19, ap. 3 (2012): 329–346.



C. Brown, S. Miller. «The impacts of local markets: are view of research on farmers markets and community supported agriculture (CSA).» *Amer. J. Agr. Econ.* 90, ap. 5 (2008): 1296-1302.

Canfora, I. «Is the short food supply chain an efficient solution for sustainability in food market?» *Agriculture and Agricultural Science Procedia 8*, 2016: 402 – 407.

Canfora, I. «Is the Short Food Supply Chain an Efficient Solution for Sustainability in Food Market?» *Agriculture and Agricultural Science Procedia, volume 8*, 2016.

Canfora, I. «Is the short food supply chain an efficient solution for sustainability in food market?» *Agriculture and Agricultural Science Procedia* 8 (2016): 402 – 407.

Charatsari, C, F Kitsios, Kai E Lioutas. *Short food supply chains: the link between participation and farmers' competencies.* Cambridge University Press, 2019.

Chesbrough, H. «Business model innovation: Opportunities and barriers.» Long range plan 43, 2010.

COMREC. Food and Rurality in Europe: Economy, Environment and Institutions in Contemporary Rural Europe. Paulina Rytkönen, 2014.

Cooley, J, Kai A Lass. «Consumer Benefits from Community Supported Agriculture Membership.» *Review of Agricultural Economics*, 1998.

- D. P. Cortés, V. Magnusson, S. Wernerhag. «Does Length Matter? An exploratory study on the current state of producers in Short Food Supply Chains.» Business Administration, Jönköping University, 2020.
- D. Szabó, A. Juhász. «Consumers' and producers' perceptions of markets: service levels of the most important short food supply chains in Hungary.» *Studies in Agricultural Economics* 117 (2015): 111-118.

Dentoni, D. «Small farms building global brands through social networks.» *Journal on Chain and Network Science*, 2010.

DesignLab. «User Personas: What Are They And Why Use Them?» https://trydesignlab.com/blog/user-personas-what-are-they-why-use-them/, 2017.

Dubosson-Torbay, M, A Osterwalder, και Y Pigneur. «E-business model design, classification, and measurements.» *Thunderbird international business review*, 2001.

- E. Elghannam, J. Arroyo, A. Eldesouky. «A cross-cultural consumers' perspective on social media-based short food supply chains.» *British Food Jurnal* (Emerald Publishing Limited) 120, αρ. 10 (2018): 2210-2221.
- E. Fleiß, V. Aggestam. «Key aspects of scaling-up short food supply chains: A survey on Swedish food producers.» *Jahrbuch der Österreichischen Gesellschaft für Agrarökonomie* 26 (2016): 115-124.
- E. Giampietria, F. Verneaub, T. Del Giudice, V. Canfora, A. Finco. «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 (2018): 160-166.

EIP-AGRI. *EIP-AGRI Focus Group Innovative Short Food Supply Chain management.* European Commission, 2015.

Elghannam, A, F Mesias, M Escribano, L Fouad, A Horrillo, και A Escribano. «Consumers' Perspectives on Alternative Short Food Supply Chains Based on Social Media: A Focus Group Study in Spain.» *foods*, 2019.



Elghannam, A, J Arroyo, και A Eldesouky. «A cross-cultural consumers' perspective on social media-based short food supply chains.» *British Food Journal*, 2018.

F. Galli, G. Brunori. «Short Food Supply Chains as drivers of sustainable development.» *project FOODLINK*, 2013.

F. Giarè, S. Giuca. «Agricoltori e filiera corta.» INEA, 2012.

Fischer, C. «Trust and communication in European agri-food chains.» Supply Chain Management, 2013.

Flora, C. «Collaborative Community-Supported Agriculture: Balancing Community Capitals for Producers and Consumers.» *International Journal of Sociology of Agriculture & Food, Vol. 19, No. 3*, 2012.

Frow, P, και A Payne. «A stakeholder perspective of the value proposition concept.» *European journal of marketing*, 2011.

G. Berti, C. Mulligan. «Competitiveness of Small Farms and Innovative Food Supply Chains: The Role of Food Hubs in Creating Sustainable Regional and Local Food Systems.» *Sustainability* (Sustainability) 8, ap. 616 (2016).

G. Ferraresi, R. Bonisolli, A. Calori, L. Agostinelli, A. Graglia, D. Sanvito. *La filiera corta come strumento di sviluppo locale.* Rapporto di ricerca, Laboratorio di progettazione ecologica, Politecnico di Milano, INIZIATIVA COMUNITARIA EQUAL – NuoviStilidiVita, 2004-2007.

Govindan, K. «Sustainable consumption and production in the food supply chain: A conceptual framework vol 195.» *International Journal of Production Economics*, 2018.

Hassanein. «Practicing food democracy: a pragmatic politics of transformation.» *J. Rural Stud., 19 (1)*, 2003: 77-86.

Ilbery, B, και D Maye. «Food Supply Chains and Sustainability: Evidence from Specialist Food Producers in the Scottish/English Borders.» *Land use policy 22*, 2005.

Inomata, R, N Kobayashi, M Nakada, και S Shirasaka. «Proposal of Customer Value Consistency Canvas, Using an Ontology of Value Proposition with service dominant logic .» *Review of Integrative Business and Economics Research, Vol. 9, Issue 4*, 2019.

J. P. Cooley, D. A. Lass. «Consumer Benefits from Community Supported Agriculture Membership.» *Review of Agricultural Economics* 20, ap. 1: 227-237.

J.Fournier, A. «Direct-selling farming and urban externalities: What impact on product quality and market size?» *Regional Science and Urban Economics* 70 (2018): 97-111.

Joyce, A, kai R Paquin. «The triple layered business model canvas: A tool to design more sustainable business models.» *Journal of Cleaner Production 135*, 2016.

K. Chetana D. Chetan Soman. «Vehicle Routing at a Food Service Marketplace.» Research and Publications, Indian Institute of Management, Ahmedabad, 2017.

Kawecka, A, και M Gebarowski. «Short food supply chains – benefits for consumers and food producers.» *Journal of Agribusiness and Rural Development*, 2015.

Kneafsey, M, και συν. Short Food Supply Chains and Local Food Systems in the EU. A State of Play of their Socio-Economic Characteristics. European Commission Joint Research Center, 2013.



- L. Aguglia, F. De Santis, C. Salvioni. «Direct Selling: a Marketing Strategy to Shorten Distances between Production and Consumption.» 113 EAAE Seminar "A resilient European food industry and food chain in a challenging world". Crete, Greece, 2009.
- L. Corsini, F. Randelli, B. Rocchi, S. Giampaolo. «Direct selling and alternative evolutionary patterns in the Italian agri-food systems, .» Working Paper N. 04, Department of Economics and Management, University of Florence, 2018.
- L. Mastronardi, D. Marino, A. Cavallo, A. Giannelli. «Exploring the Role of Farmers in Short Food Supply Chains: The Case of Italy.» *International Food and Agribusiness Management Review* 18, ap. 2 (2015).
- M. A. Sellitto, L. A. Machado Vial, C. V. Viegas. «Critical success factors in Short Food Supply Chains: Case studies with milk and dairy producers from Italy and Brazil.» *Journal of Cleaner Production* 170 (2018): 1361-1368.
- M. D'Amico, G. Di Vita, G. Bracco. «Direct sale of agro-food product: the case of wine in Italy.» *CALITATEA-ACCES LA SUCCES* 15, αρ. 1: 247-253.
- M. Kneafsey, L. Venn, U. Schmutz,. *Short Food Supply Chains and Local Food Systems in the EU. A State of Play of their Socio-Economic Characteristics.* European Commission, Joint Research Center Scientific and Policy Report, 2013.
- M. Mancini, D. Menozzi, M. Donati. «Producers' and Consumers' Perception of the Sustainability of Short Food Supply Chains: The Case of Parmigiano Reggiano PDO.» *Sustainability* 11, αp. 271 (2019).

Mancini, M. C, D Menozzi, M Donati, B Biasini, M Veneziani, και F Arfini. «Producers' and Consumers' Perception of the Sustainability of Short Food Supply Chains: The Case of Parmigiano Reggiano PDO.» *sustainability*, 2019.

Mastronardi, L, D Marino, και A Cavallo. «Exploring the Role of Farmers in Short Food Supply Chains:The Case of Italy.» *International Food and Agribusiness Management Review*, 2015.

Nosratabadi, S, A Mosavi, και Z Lakner. «Food Supply Chain and Business Model Innovation.» *Foods 9(2)*, 2020.

Osterwalder, A, και Y Pigneurr. *Business model generation: a handbook for visionaries, game changers, and challengers.* John Wiley & Sons, 2010.

Osterwalder, A, Pigneur Y., Bernarda G., Smith A. *Value Proposition Design: How to Create Products and Services Customers Want.* John Wiley & Sons, 2014.

Osterwalder, A, Y Pigneur, Kai C Tucci. «Clarifying business models: origins, present, and future of the concept.» *Communications of the association for information systems 16*, 2005.

P. Rapisarda, M. Rizzo,. «Analysis of a direct selling network for agrifood product.» *Italian Journal of Food Science* 27, αp. 1 (2015): 109-117.

Pokorná, Jitka, L. Pilař, T. Balcarová, και I. Sergeeva. «Value Proposition Canvas: Identification of Pains, Gains and Customer Jobs at Farmers' Markets.» *AGRIS on-line Papers in Economics and Informatics*, 2015.

Cox R., Holloway L., Venn. L. «Common ground? Motivations for participation in a community-supported agriculture scheme.» *Local Environment* 13, ap. 3 (April 2008): 203-2018.

Rapisarda, P, M Rizzo, και A Scuderi. «Analysis of a direct selling network for agrifood products.» *Italian Journal of Food Science 27(1)*, 2015.



- S. Frone, A. Constantinescu. «Impact of technological innovation on the pillars of sustainable development.» INTERNATIONAL CONFERENCE Sixth edition ECOLOGICAL PERFORMANCE IN A COMPETITIVE ECONOMY. Bucharest.
- S. Koutsou, P. Sergaki. «Producers' cooperative products in short food supply chains: consumers' response.» *British Food Jurnal* 122, ap. 1 (2020): 198-211.
- S. Tudisca, A.M. Di Trapani, F. Sgroi. «Socio-economic Assessment of Direct Sales in Sicilian Farm.» *Italian Journal of Food Science* 27, ap. 1 (2015).

SAPEA. *A sustainable food system for the European Union.* SAPEA - Science Advice for Policy by European Academies, 2020.

Sheehan, N. T, και V Bruni-Bossio. «Strategic value curve analysis: Diagnosing and improving customer value propositions.» *Business horizons Volume 58, Issue 3*, 2015.

Smith, B. Gail. «Developing sustainable food supply chains.» *Philosophical Transaction of the Royal Society* 363 (2008): 849-861.

- T. Dedeurwaerdere, B. Annaert, T. Avermaete, T. Bleeckx, C. de Callataÿ, O. De Schutte, P. De Snijder, P. Fernández-Wulff, M. Hudon, H. Joachaim, E. Matthijs, J. Vivero. «Social enterprise based transition movements between transformation and reform. The case of transition initiatives in local food networks.» 2015.
- T. Marsden, J. Banks, G. Bristow. «Food supply chain approaches: exploring their role in rural development.» *Sociologia Ruralis* 40, αp. 4 (2000): 424-438.

Tanasă, Lucian, Ioan-Sebastian Brumă, και Sebastian Doboş. *The role of short food supply chains in the development of small-scale local producers case study: Harghita County.* conference peaper, The Research Institute for Agricultural Economy and Rural Development (ICEADR), Bucharest: Agrarian Economy and Rural Development - Realities and Perspectives for Romania. 6th Edition of the International Symposium, 2015, 286-293.

Todorovic, V, M Maslaric, S Bojic, M Jokic, D Mircetic, και S Nikolicic. «Solutions for More Sustainable Distribution in the Short Food Supply Chains.» *Sustainability 10(10)*, 2018.

UNIDO. Short Food Supply Chains for promoting Local Food on Local Markets. United Nations Industrial Development Organization, 2020.

V. Allegra, C. Bellia, A. S. Zarbà. «The logistics of direct sales: new approaches of the EU .» *Italian Journal of Food Science* (Chiriotti Editore) 26, αρ. 4 (2014): 443-450.

Vismara, S. «Sustainability in equity crowdfunding.» *Technological Forecasting and Social Change*, 2019.

Warsaw University of Life Science. «quantitative assessment of economic, social and environmental sustainability of short food supply chains and impact on rural territories.» Strengthening European food chain sustainability by quality and procurement policy - HORIZON 2020 Strength2food, 2019.

Y. Chiffoleau, S. Millet-Amrani. «From Short Food Supply Chains to Sustainable Agriculture in Urban Food Systems: Food Democracy as a Vector of Transitio.» *Agriculture* 6, ap. 57 (2016).

Yuna Chiffoleau, Y, S Millet-Amrani, και A Canard. «From Short Food Supply Chains to Sustainable Agriculture in Urban Food Systems: Food Democracy as a Vector of Transition.» *Agriculture*, 2016.



Z. Benedek, I. Fertő, A. Molnár. «Off to market: but which one? Understanding the participation of small-scale farmers in short food supply chains—a Hungarian case study.» *Agriculture and Human Values (2018)* 35 (2018): 383–398.

Zirhama, M, και R Palomba. «Female Agriculture in the Short Food Supply Chain: A New Path towards the Sustainability Empowerment.» *Agriculture and Agricultural Science Procedia*, 2016.

SMARTCHAIN Deliverables

- D2.1 Report on developing the procedure for identification and analysis of the technological and non technological innovations for Short Food Supply Chains;
- D2.2 Report on the inventory of technological and non-technological innovations
- D2.3 Report on the identification of the typical bottlenecks for SFSCs and potential success factors by application of technological and non technological innovations
- D2.4 Report on the screening and pre-selection of technological and non-technological innovations
- D.3.1 Report on the Definition of Social Innovations in Short Food Supply Chains-Conceptual Framework
- D3.2 Report on key drivers of actors' engagement in social innovation in short food supply chains: Best practices and enabling environment
- D3.3 Report on the multi actor validated definition, conceptual framework, key drivers, best practices, and enabling environment for social innovations in short food supply chains
- D3.4 Social Innovation Assessment Template
- D3.5 Case studies report on SIAT application
- D3.6 Comparative analysis report on SIAT application
- D4.1 Report on consumers focus group discussions
- D4.2. Report on the stakeholder interviews
- D4.3 Consolidated report on the qualitative findings
- D4.4 Report on the consumer online survey results
- D5.1 Selected sustainability impact categories and list of requirements of each one
- D5.5 Environmental impact assessment for selected short food supply chains
- D5.6 Socio economic impact assessment for selected short food supply chains
- D7.1 Inventory of successful cases on the application of innovative solutions in SFSCs
- D7.2 Inventory of reference exploitation models for short food supply chains



Annex 1: Infographic - A graphic version of the Best practice guide for improved business performance in short food supply chains









The aim of SMARTCHAIN project is to foster and accelerate the shift towards collaborative short food supply chains (SFSCs) and, through specific 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.

Using bottom-up, demand-driven research, the SMARTCHAIN consortium (43 partners form 11 European countries) perform a multi-perspective analysis of 18 case studies (from 9 project partner countries) of short food supply chains in terms of technological, regulatory, social, economic and environmental factors, assess the linkages and interactions among all stakeholders involved in short food supply chains and identify the key parameters that influence sustainable food production and rural development among different regions in Europe.

Specifically, one of the main objective is to generate a battery of tools as well as **business** and **policy recommendations** to implement **innovative solutions** in short food supply chains, primarily improving the **competitiveness** and **sustainability** of short food supply chains and making them smarter and more equitable, inclusive and sustainable.

Project info & resources:

https://www.smartchain-h2020.eu

https://www.smartchain-platform.eu

One of the object of SMARTCHAIN project is to generate a battery of **tools** as well as **business and policy recommendations** to implement innovative solutions in short food supply chains, primarily improving the competitiveness and sustainability of short food supply chains and making them smarter and more equitable, inclusive and sustainable.

One of these tools is the **Best practice guide** for improved business performance in SFSCs. This is a guide for the application of reference **exploitation models**, improving business performance in short food supply chains and helping farmers and food producers to capitalise on their distinctive territorial capital to foster sustainable growth and the development in rural areas.

This business guide is aimed at entrepreneurs, farms, aspiring entrepreneurs who want to start or implement a **SFSC activity**, taking into account the various aspects that form and make a business model effective, without neglecting the **environmental** and **social components**. It will be a tool for identifying opportunities and strategies to enable SFSC initiatives.

The guide starts from the business model canvas (Osterwalder & Pigneur, 2010) and, for each canvas building block, identifies **recommendations** and **suggestions**, based on the input of the **case study** of the Smartchain project, the **project deliverables** and the **literature**. Specific recommendations are then identified for each **reference exploitation models**, crossing with the canvas building blocks. You will find a sticker (explained on the next page) when the tips are addressed to specific reference exploitation models.

The social and environmental business canvas models (Joyce & Paquin, 2016) were also used. For each of their blocks and, when possible and useful, for each reference exploitation model, **recommendations** and **suggestions** were identified to help develop the social and environmental sustainability of the business models.

Enjoy!



COOPERATIVE OF PRODUCERS

A cooperative of producers allows its members, who produce the same or similar products, to cooperatively produce, process, distribute, market and sell the products.



INDIVIDUAL PRODUCERS

Many farms are operated as individually owned businesses. The individually owned business is probably the oldest and most common form.

One person, family or small group of people owns, controls and conducts the business.



COMMUNITY SUPPORTED AGRICULTURE

The Community Supported Agriculture model has been in place for many farms for some time now. The traditional model placed substantial emphasis on sustainable agriculture, shared production risk, consumer involvement with production activities, and authenticity of local sourcing.



ONLINE AND OFFLINE MARKETPLACE

Marketplaces offer independent producers a platform/market and marketing knowledge to sell goods without the burden of a brick-and-mortar store. Online benefits of selling your local products 24/7 to an increasing group of potential customers who buy online are evident, giving consumers the opportunity to find a wide variety of goods from different manufacturers.

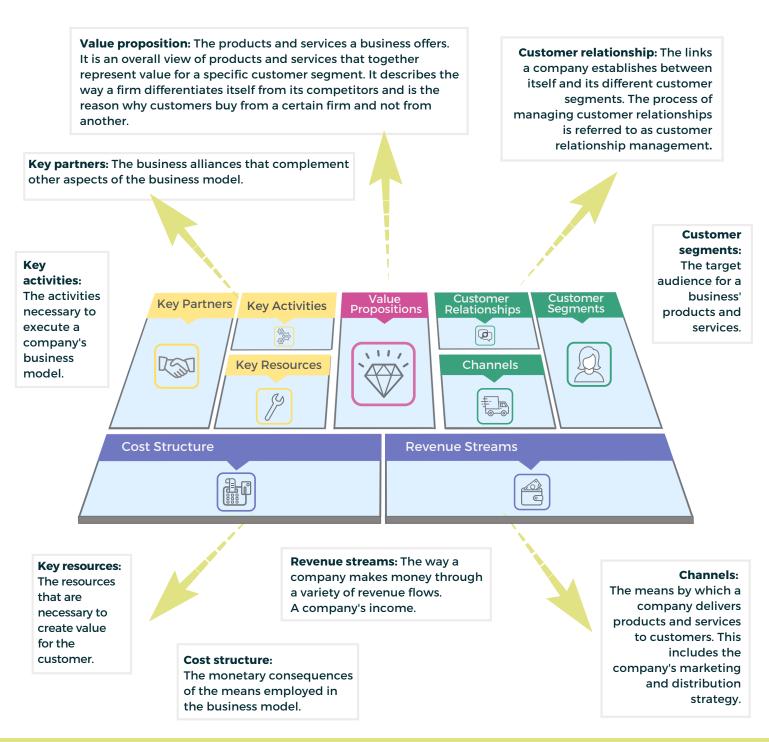


PROMOTION OF ON FARM SELLING

This model has the primary objective to promote/support on farm and online selling of individual producers and to improve the visibility of the farm. This is conducted on local as well as regional and national level.

BUSINESS MODEL CANVAS

The concept of **business model** helps capturing the idea of value creation through its ability to design and analyse the value that a business is producing, offering and delivering. A business model is indeed generally defined as "the rationale of how an organization creates, delivers and captures value" (Osterwalder & Pigneur, 2010*). For instance, it is an instrument able to **analyse**, **design**, **change**, **align and innovate new businesses**.



^{*} The Business Model Canvas above is based on the work Ostenwalder & Pigneur, 2010

VALUE PROPOSITION. LABELLING AND BRANDING

Business Model Canvas

- Identify the value of the products you are producing in terms of quality.
- Provide information to consumers about the added value of your products and its social and environmental benefits.
- Clearly express your value proposition making it clearly understandable to your consumers and broader potential customers.
- Tell a story about your products.
- Foster the implementation of monitoring systems which take track of both products and markets characteristics and strengths.
- Establish participatory forms of labelling.
- Collaborate with other SFSC initiatives and/or small producers in the achievement of the quality labels/certifications, by sharing its costs.
- Take advantage of novel ICTs technologies: you could add a QR code to your label to be read by smartphone that links to your webpage, your company story, traceability data, culinary recommendations, a video explaining what do you do, etc.



If you are an **online and offline seller**, consider that labelling within markets can be not only a guarantee of the product sold but also a security for the consumer. So, develop a labelling system based on different colours to make recognition and meaning more explicit and easier.



If you are an **on farm seller** know that it is important to communicate the link between the local product and the geographical proximity to the farm as well as the close relationship between producer and consumer which make the purchase convenient even if the price is higher than in a supermarket.





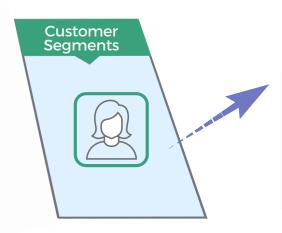
If you are an **Individual producers** or a **cooperative of producers** know that it is important to express the story of the firm in the value proposition, using various tools (online tours or "product museums", video or other tools for storytelling, also adapting it to social networks).



Business Model Canvas

CUSTOMER SEGMENTS

- Know your customers through continuous market research in order to define the relevant target groups, their preferences and concerns.
- Educate consumers through targeted campaigns and information; Different consumer segments should be targeted differently (e.g. some would care more about transparency, thus should be provided with information about origin, production and processing methods, others may be better engaged with a story telling approach).
- Ensure certification and labelling is clearly and easily visible and understandable, in order to address consumers' concerns.
- Communicate the social impact of SFSCs to consumers in order to engage them in SFSCs initiatives.
- Join effort with other producers of your municipality, collaborate with them to share market research costs or to sell your products together (e.g., same online shop)
- Consider exploring new supply channels trying to improve the accessibility of your products and facilitating consumer buying (e.g., selling machines, online marketplaces, etc.)
- Increase the involvement of consumers by Participatory Guarantee System (PGS): give the chance to make comments in your web and value your products.
- Find out about your consumers using Google Analytics; for example, this is Google's free web analytics service that allows you to analyze in-depth who consults your website.





If you are an **online and offline seller**, consider that online purchases generally require a minimum of digital skills and in the use of online payment systems and can therefore be specific to some customer segments, perhaps younger and with a propensity for digital. This elements must be taken into account for the definition of the basket of products.

Business Model Canvas

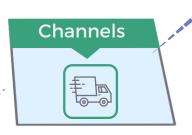
COMMUNICATION TOOLS; SALES AND PURCHASE CHANNELS

- Foster the organization of efficient and high-quality customer service (for example environmentally-and user-friendly design of home delivery).
- Promote the organisation of door-to-door selling and market fair in order to reach the elderly.
- Create a WhatsApp group or similar: it could be used for making purchases orders, but also for sharing news about SFCSs with your consumers, for directly asking about problems/feedback, etc.
- Expand the point of sales (online and offline) by including new types of selling channels e.g. "pick your own" and making local food more available in restaurants.
- Choose your own auto-systems, vending machines, appropriate cooling/transportation systems and custom home delivery boxes.
- Involve customers as online and offline ambassadors of SFSCs and providing them marketing knowledge as well.
- Focus on the connection between cities with produce, ensuring that citizens can reach 100% local and 100% natural long- term food products



For a Community supported agriculture, it is recommended to develop meeting places such as collection points even at the CSA locations themselves, and develop activities within these locations where subscribers are most likely to meet in order to increase the sense of community, engagement and exchange.

If you are an **on farm seller**, consider that direct selling is an opportunity to improve your own reputation, by creating a direct connection with the consumer which can identify a story, behind the product itself. In order to make this working model stronger and more significant, side activities can be included within the agrifood product direct selling scope, such as promotional and tasting initiatives for products.







If you are an **online and offline seller**, expanding and applying the knowledge of manufacturers through training courses and workshops is essential to improve the management and efficiency of operations. In the particular case of online and offline marketplaces, it helps to develop skills that can be used to manage the e-commerce service.

CUSTOMER RELATIONSHIP

Business Model Canvas

- Foster the organisation of community initiatives, in collaboration with local bodies and administration to strengthen interaction with customers.
- Try to experiment model of direct selling of your products which may promote an alternative networked commercial system that can communicate effectively and reliably values of the food produced.
- Organise side activities within the agrifood product direct selling scope.
- Explore new ways of establishing customer relations by introducing "self-service methods" (such as pick your own & vending machines).
- Take into account consumer feedback because they are a method of quality control of the product and an effective way to correct vendor errors.
- Facilitate consumer access to products through cooperative-run stores, e-commers, trade shows, cooking classes, farm visits, encouraging forms of direct sales.



For a **Community supported agriculture**, hosting social activities within a CSA becomes a way to create a community. It gives subscribers the opportunity to meet with each other and with farmers.

One way to create networks more easily is also to connect subscribers with their nearest neighbours.







For a **Cooperative of producers** it is advised to facilitate consumer access to products through cooperative-run stores, e-commers, trade shows, cooking classes, farm visits, encouraging forms of direct sales.

Business Model Canvas

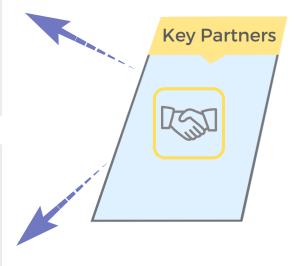
KEY PARTNERS; INSTITUTIONS AND ADMINISTRATIONS

- Duild networks with social, cultural and environmental associations, even if they are not directly related to SFSCs: it can be a good way of empowering some of the dimensions of SFSCs itself.
- Explore new ways of establishing cooperation with stakeholders, as it facilitates SFSC innovative processes.
- Foster the creation of forms of collaboration and sharing with various entities and sectors.
- Facilitate and promote local legislation that fosters the development of SFSC initiatives and strengthens their presence in the local area.
- Foster collaboration with various sectors in your local area, such as tourism organizations, bed and breakfasts in order to enhance the promotion of the territory in which the SFSC initiative works and increase their customers.
- Try to identify with all the SFSC actors a shared purpose, vision, and principles for your SFSC. Try to share your approach with them, make them a part of it.

If you are a **Cooperative of producers**, try to involve everyone in the organization. Different ways of seeing the same things can be very useful and will also ensure the participation of the smallholder, in order to get their own point of view, which is very different from the one of big firms, for example.



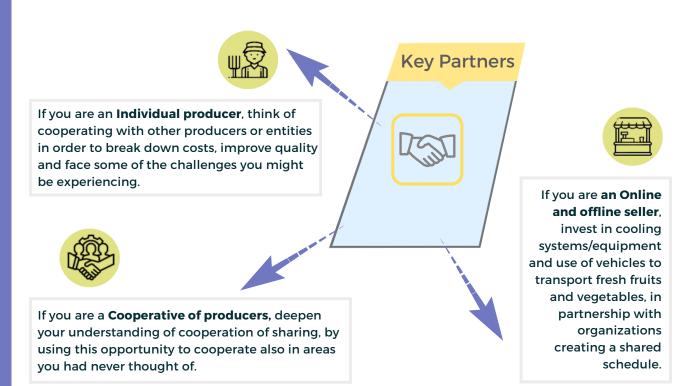
You should also involve all producers in an equal way. It can be very usefull to involve the smallholder participation, in order to get their own point of view, which is very different from the one of big firms, for example. Not involving everyone equally may lead to risk of becoming exposed to unequal relationships with large firms, especially in less structured countries or places.



KNOWLEDGE AND INFRASTRUCTURE SHARING

Business Model

- Invest your extra resources in knowledge sharing, which is an important part of the activity connected to SFCSs.
- Canvas
- Promote and manage local networking initiatives and education programmes: sharing knowledge and experiences, storytelling, tours and visits (online and offline) are important ways for informing consumers.
- Pay attention to the generational gap since it is directly linked to the innovativeness, limited ambitious mentality, lack of open-mindedness, and new ideas.
- Promote training on the use of the business model canvas and the building of its blocks within your organization for your human resources.
- Try to read up about other innovative experiences and best practices to see if they can be replicated in your own activities, in some way.
- Cooperate to solve, earlier and better, the lack of knowledge in the use of digital technology and ICT, exchanging skills, purchasing specialist services or equipment and participating in training courses in a cheaper way.
- Use innovation as a marketing claim. Also, try to improve current products/services instead of producing new ones. A strong collaboration with other stakeholders can be a good way to innovate, too.
- Try to increase your knowledge about specific legislation for SFSCs by networking with other farmers and producers and obtaining support from institutions.
- Create Districts aimed at sharing infrastructure.

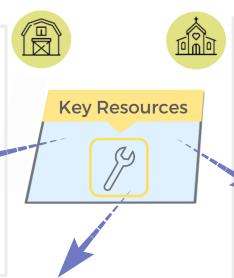


KEY RESOURCES, COST AND REVENUES; MONITORING, DATA COLLECTION AND RECORD KEEPING

Business Model Canvas

- Foster forms of peer-to-peer learning and transmission of knowledge.
- Improve knowledge and skills in funds' identification and participation in order to improve opportunities of receiving funds and budgets for your SFSC initiatives.
- Apply technological innovations to organize faster and more effective logistics for perishable products. Numerous IT (Internet technology) and now AI (Artificial intelligence) are available for suppliers and manufacturers to secure their logistics problems.
- Invest in achieving certification and labels to enable higher product prices and increase revenue.
- Foster the uptake of new forms of financing other than the traditional routes.
- Invest in the development of a fundraising strategy.
- Establish systems and strategies for collecting consumers' feedback.
- Use innovative methods within decision-making processes such as risk analysis, cost analysis, quick charts to make all decisions understandable.
- Try to conduct a survey of consumer preferences and the criteria that drive the purchase and choice of specific products, in order to better know them.
- Develop an effective information system in order to improve product flow efficiency by building a more effective and data driven communication system.

For a on farm seller it is suggested to increase the number of days of opening of direct markets, or even expand the variety of products offered through partnerships with consumer buying groups. This, however, without compromising the primary characteristic of direct sales or the brevity of the supply chain and therefore the savings obtained by the absence of intermediaries



For a Community supported agriculture, establish a form of membership so that consumers and the broader community can practically support the values that a CSA represents and the products they produce. Moreover, investing in the development of other funding methodologies such as crowdfunding and fundraising, supported by the target community and the social value of the product might also strengthen the sustainability of the initiative.



A **Cooperative of producers** can diversify the production in order to cover the whole year, always ensuring high quality and traceability, but also a constant presence of the brand.





THE SOCIAL CANVAS

Local Communities

Social relationship built with and their local communities. Degree of maintenance of such mutually beneficial relationships.

Governance

Organizational structure and decision-making policies of an organization.



Employees

Role of employees as a core organizational stakeholder.

- Amounts and types of employees, pay, gender, ethnicity and education within the organization;
- Professional development opportunities

Social value

Social value speaks to the aspect of an organization's mission which focuses on creating benefit for its stakeholders and society more broadly.

Social Culture

Potential impact of an organization on a society as a whole.



Scale of Outreach

The depth and breadth of the relationships an organization builds with its stakeholdes through its actions over time.



The person who 'consumes' the value proposition. This space is concerned with how the value proposition adresses the needs of end-user contributing to his/her quality of life.



Social Impacts



Social cost of the organization. It might include:

 Working hours, cultural heritage, Health and safety, Community engagement, fair competition, respect of intellectual property rights.





Positive social value creating aspects of the organization's action. This component is for explicitly considering the social benefits which come from an organization's actions.

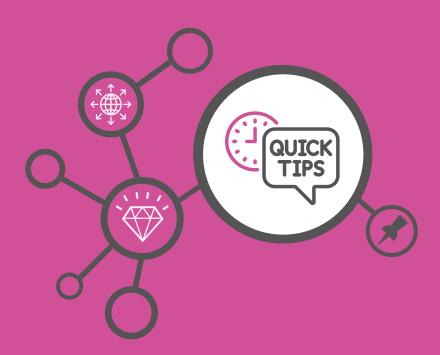
Improve the social components of your business

The **social** and **environmental components** of short food supply chain initiatives need to be clearly expressed in the business model of those who would like to engage in a SFSC initiatives.

The analysis of Smartchain project showed that for what concerns the social dimension, initiatives related to sharing, collaboration and trust among supply chain actors are not yet commonplace. However, for items such as service design that is centred on the needs of the community, equal pay for gender and redistributive balance, all the SMARTCHAIN case studies performed well.

A key point of using the social component is to extend the original business model canvas through a **stakeholder management approach** to capture the **mutual influences** between stakeholders and the organization, and the **key social impacts** of the organization that result from these relationships, as well as the **social value creation**.

To improve these social components, we can refer to the **Triple Layer Business Model**, a model developed by **Joyce and Paquin** (Joyce & Paquin, 2016), which shows how the social and environmental aspects can be expressed across the nine building blocks of the business model.



SOCIAL VALUE

Social value speaks to the aspect of an organization's mission which focuses on creating benefit for its stakeholders and society more broadly.

The Social Canvas



- Express how social impact is produced and how participating to SFSC initiatives contribute to creating benefits and social impact at the community level and beyond.
- In order to increase consumer purchase of SFSCs, the marketing and communication strategies should indicate the social impact of food production at the local level to increase the sense of personal relevance for the consumers. It should also address consumer expectations regarding the food range and seasonality of the products.





LOCAL COMMUNITIES

Social relationship built with and their local communities.

Degree of maintenance of such mutually beneficial relationships.

The Social Canvas

• Strengthen cooperation and networks among diverse actors within the community in order to establish new services at the community level.



- Foster the creation of mutually beneficial relationships with local administration and institutions.
- Invest in the implementation of new activities, in order to improve the value proposition and engage the community.
- Involve the whole community in asking about their needs and ideas on food and SFSC transparency (labs, focus group, activity co-design, short courses, peer to peer educational experiences...).



GOVERNANCE

Organizational structure and decision-making policies of an organization.

The Social Canvas

Strengthen consumer's engagement in the governance of the SFSC initiative and create practices of co-creation and co-responsibility.

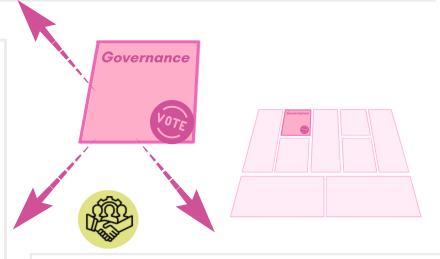


- Give evidence of how community involvement in activities brings an important economic and social impact for the whole community and not only for the SFSCs.
- Foster a culture of discussion, collaboration and team spirit among organizational members by structuring informal conversations about current and future activity plans.
- Provide hands-on and non-practical training programs, both individual and group, focused on implementing innovative solutions.
- Use innovative methods within decision making processes such as risk analysis, cost analysis, quick charts to make all decisions understandable.



If you are an **online and offline seller**, know that the use of social peer control within an urban market may be used as a fundamental key to collective action within the dynamics of the market in order to maintain consumer confidence in the quality of products, not in the individual producer but in the market as a whole.

If you are a Community Supported Agriculture, be aware that the CSA is defined as a care-based resource management system. This propensity for care on the part of the members is at the basis of the organisational form, not only as good practice but also from the perspective of resource management, and the propensity to create links between growers and consumers and between people and nature. This should be strengthened in order to achieve sustainability and inclusive governance.



If you are a **Cooperative of Producers** know that the social impact developed by the emergence of collaborations between producers, farmers and consumers generates spaces of interaction for the exchange of ideas.

These moments of sharing may lead to an increase in partnerships and entrepreneurial initiatives in the territory.

EMPLOYEES

Role of employees as a core organizational stakeholder; amounts and types of employees, pay, gender, education within the organization.

Professional development opportunities.

The Social Canvas

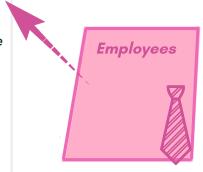
• Foster the participation of young people and entrepreneurs in short food supply chain initiatives. Young farmers might be able to help in responding to new opportunities and market changes.

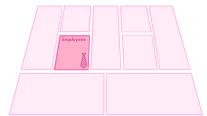


- Foster the investment in peer-to-peer learning and transmission of knowledge opportunities.
- Ensure that equity in terms of gender, payments and working conditions is ensured among all stakeholders.
- Foster the creation of associations, or regularised trade unions in order to collect the interests of workers operating in SFSCs. This might, indeed, strengthen the inclusion of workers and defend their interests.
- Strengthen staff capacity by organizing seminars, workshops, meetings on negotiating power, joint use of resources, product development, broader use of information technology, social media, advertising campaigns, etc.



If you are an online and offline seller, consider that a market management committee should monitor products, in order to ensure that they are seasonal and coming from low-input agriculture and non-industrial production methods. This aspect cannot be only based on the direct link with producers, which is not always a sufficient guarantee.





SOCIAL CULTURE

Potential impact of an organization on a society as a whole.

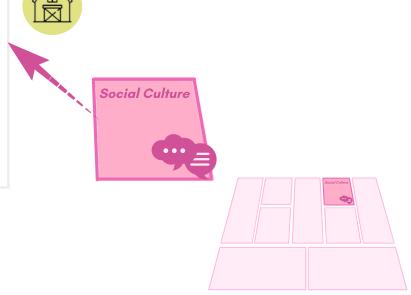
The Social Canvas

• Foster the organisation of educational activities and learning activities for children and the broader community.



- Partner with the tourism sectors in order to foster the organisation of cultural events and foster the link between traditions, food and heritage.
- Create places to educate the younger generation, to learn from nature, agriculture, food production. For example, cooperating with professionals who have expertise in educating children and can introduce them to the farm environment.
- Engage the younger generation in the work by inspiring them and applying the added value of their innovative ideas. Through: Open tours of farms; Tasting tours of local products.
- Activate a shared management of processes, such as community composting on the territory between citizens, administrations, and agriculture, because it can have an important social value.

If you are an **on farm seller** know that direct selling can reconfigure the relationships between producers and consumers, taking on a feature of social justice that allows the farmer to enhance the value of his production and pass on his knowledge and his link with the territory.



END USER

The person who 'consumes' the value proposition.

This space is concerned with how the value proposition adresses the needs of end-user contributing to his/her quality of life.

The Social Canvas

• Foster the identification of customer segments and develop strategies aimed at targeting each specific consumer group.



- Communicate to customers that by buying locally produced products they are supporting local farmers, economies, and communities. The price of the product is indeed not the only determining factor, but also the perception of the community is very important.
- Keep the information about SFSCs very simple in order to engage the end users as much as possible. The easier the concept is for them to understand, the greater is their awareness.
- De clear and design labels that contain readable and understandable information, that allow anyone to save time as usually consumers don't want to waste it reading labels that are difficult to understand.

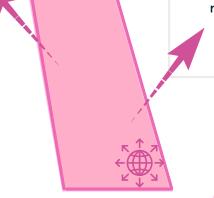


If you are an on farm seller think about installing a vending machine for products so that customers can access them when they prefer and in a convenient location. Farmers have a new way to sell fresh food products direct to the public without having to deal with customers, especially if they do not have much time to spend on buying products. It can be applied to a high variety of products and it is also very recommended in this Pandemic period to avoid direct contacts with people.

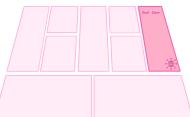


products, typically market research should be carried out, but a large-scale market research study can be very expensive. If you are a cooperative of producers you can use the lead user approach which is a cheaper alternative for collecting information on new market trends. Lead users are consumers which are able to identify needs today that will play an important role in the mass market in the future. It allows to create innovative foods based on consumers' needs and ideas.

For the introduction of new



End - User



SCALE OF OUTREACH

The depth and breadth of the relationships an organization builds with its stakeholdes through its actions over time.

The Social Canvas

Organise promotional and tasting initiatives for products and promote products in restaurants, hotels and cafes in the local area.



- Involve families with younger children to foster overall family awareness on the importance of good nutrition.
- Use new channels to inform about SFSC and its positive social and environmental impact.
- Develop an information hub through which people with common interests can exchange information, facilitate learning and develop cooperation.



If you are an on farm seller try to reach and involve other different and unusual, target groups: for example, promote farms and members especially in the most popular places frequented by tourists, so that they are aware of nearby opportunities such as local specialty stores. A good idea could be offer them tasting tours involving the products of collaborating partners, leisure activity programs, and corporate tours through the creation of collaborations with hotels, tourist offices, and restaurants in the region.



If you are a cooperative of producers make products accessible not only within the region but throughout the country through participation in organized events, workshops, exhibits, and educational seminars. For example through the creation of a regional corner in the supermarket and point of sale, collaborations with agritourism chains, use of collaborative platforms.









THE ENVIRONMENTAL CANVAS

Supplies and Out-sourcing

Supplies and out-sourcing represent all the other various material and production activities that are necessary for the functional value but non considered 'core' to the organization.



Production

Actions that the organization undertakes to create value. They are at the core of the organization and have an environmental impact.

Materials

Bio-physical stoks used to render the functional value. Organization's key materials and their environmental impact.

Functional vii /

Focal outputs of a service (or product) by the organization under examination.

End-of-Life

Issues of material reuse of product. This component supports the organization exploring ways to extend its responsibility beyond the initially conceived value of its products.

Distribution

Physical means to ensure access to its functional value. In the environmental layer, it is the combination of the transportation modes, the distances travelled and the weights of what is shipped.

Use Phase

Impact of the client's partaking in the organization's functional value, or core service and/or product. This includes maintenance and repair of products when relevant; and should include some consideration of the client's material resource and energy requirements through use.

Environmental Impacts



Ecological costs of the organization's actions:

 bio-physical measures such as CO2e emissions, human health, ecosystem impact, natural resource depletion, water consumption.

Environmental Benefits



Ecological value the organization creates through environmental impact reductions and even regenerative positive ecological value.

Improve the social components of your business

The **social** and **environmental components** of short food supply chain initiatives need to be clearly expressed in the business model of those who would like to engage in a SFSC initiatives.

For the **environmental dimension**, the analysis of Smartchain project has confirmed a positive trend, for some production sectors, towards socio-environmental issues seen **as strategic** and placed at the centre of the **value proposition**.

The main objective of the environmental component is to assess how the organization generates **more environmental benefits** than **environmental impacts**. This allows users to better understand where the organization's greatest environmental impacts lie within the business model and to provide insight into where the organization can focus its attention when creating **environmentally oriented innovations**.

To improve these environmental components, we can refer to the **Triple Layer Business Model**, a model developed by **Joyce and Paquin** (Joyce & Paquin, 2016), which shows how the social and environmental aspects can be expressed across the nine building blocks of the business model.



FUNCTIONAL VALUE

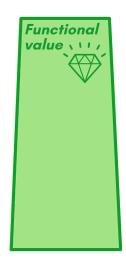
Focal outputs of a service (or product) by the organization under examination.

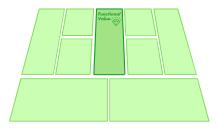
The Environmental Canvas

 Collect data, measure, promote the eco-rating as a tool to recognize the value of a company's environmental commitment.



- Clearly express how SFSC products are contributing to environmental sustainability and how this may affect the environment.
- O Clearly provide information about how SFSC products bring a positive environmental impact (refer to CO2 emission, water consumption, human health).
- In order to monitor the value of environmental sustainability of farms we recommend the use of ecorating, which is a tool to measure and quantify the biocapacity of the planet saved.





SUPPLIES AND OUTSOURCING

Supplies and out-sourcing represent all the other various material and production activities that are necessary for the functional value but non considered 'core' to the organization.

The Environmental Canvas

• Foster the creation of collaborations with other entities in order to strengthen your environmental impact and face challenges.



- Collaborate with local authorities, such as national parks, or organized fairs are of great importance in order to create a network of environmental and social collaborations that must always be taken care of and increased.
- Implement composting activities to be used by the municipality and ensure correct management of the composting process and correct use of the compost obtained, guaranteeing the closure of the zero kilometer cycle.
- Eliminate chemical amendments: local products can be obtained from organic farming fertilized exclusively with organic amendments, obtained from their own organic waste, which come back to new life as compost.



PRODUCTION

Actions that the organization undertakes to create value. They are at the core of the organization and have an environmental impact.

The Environmental Canvas



- Highlight that your production is free of chemicals, has low carbon footprint and uses a compostable packaging.
- Use specific labels to remark the quality of your main activities.
- Invest in research to better understand how production can be managed in several ways.
- Stimulate the practice of integrated or eco-compatible agriculture.
- Bring improvements such as digitization or geolocation in SFSC, which means allowing those who work the land to achieve maximum precision regarding the use of substances and resources based on the type of land.
- Invest in smart water use, for example by choosing crops with low water demand or using drip system for irrigation.

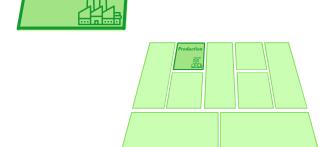
Individual producers should consider that building clear differentiation from other organic products through the use of local and certified production requirements can help organic, local and sustainable products to reach a new market/target.

This can be done by using an

This can be done by using an internal control system, PDO and PGI certification, or transparency supported by digital tools, through the creation of small warehouses for customized supply of perishable foods.



Production



MATERIALS

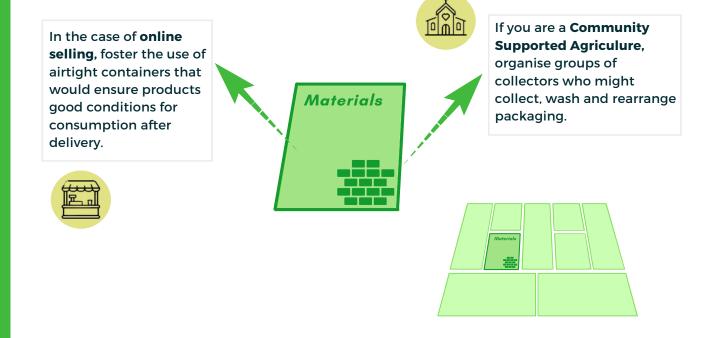
Bio-physical stoks used to render the functional value.

Organization's key materials and their environmental impact.

The Environmental Canvas



- Use packaging only for products that need it.
- Invest in new packaging methods (such as biodegradable packaging with smart technologies) which make longer shelf live possible and less waste.
- Ensure that packaging includes accurate and informative labelling and nutritional information.
- Prefer bio sheet for active mulching of soils in recycled paper.
- Use compostable seeds instead of polystyrene: even if polystyrene is better cut, it is practically impossible not to disperse it in the environment, cellulose-based materials are functional.
- Integrate innovative technological systems that are part of Industry 4.0 such as IoT (Internet of Thinghs). The use of these new technologies reduces expenses and increases the percentage of production at the same time.



USE PHASE

Impact of the client's partaking in the organization's functional value, or core service and/or product. This includes maintenance and repair of products when relevant; and should include some consideration of the client's material resource and energy requirements through use.

The Environmental Canvas

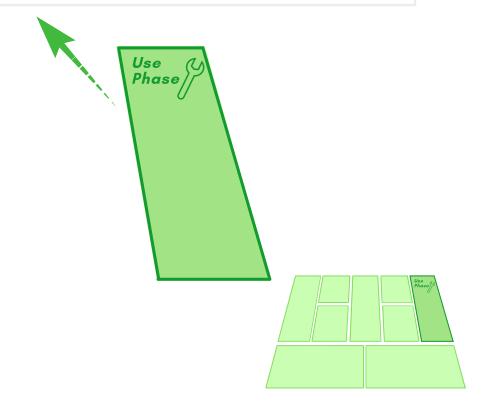


Ocommunicate to customers not only the nutritional impact of what they are buying but also its environmental one, in different ways such as: easy-to-read information on CO2 emission, water waste, etc, on social media channels or on the packaging of the products.

If you are a Community Supported Agriculture know that raising awareness and communicating the nutritional impacts due to healthier eating, to consumers, is your goal.

Thanks to the participation of CSAs, people are eating more vegetables that are fresher and more varied. It is important to guarantee the most informed and environmentally and socially aware consumer a positive environmental impact, food security, and a service to the community provided by the farming community, for example through food donations.





END OF LIFE

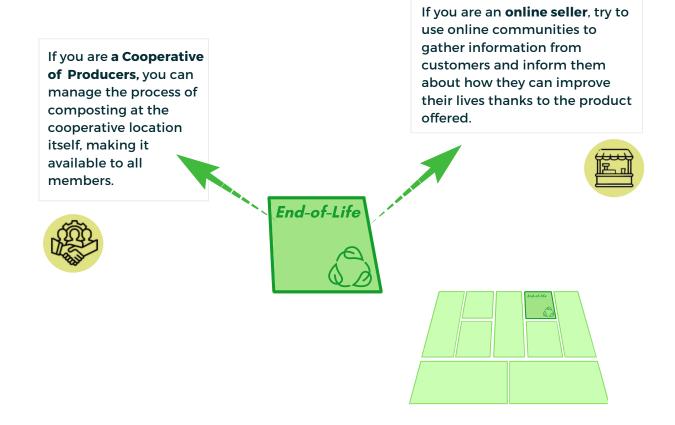
Issues of material reuse of product. This component supports the organization exploring ways to extend its responsibility beyond the initially conceived value of its products.

The Environmental Canvas

Promote small composting chains in which farmers and producers can manage the process of composting close to their firms.

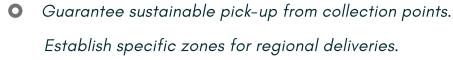


- Selling SFSC products means being able to understand your potential customers and use all the information you gather about them to convince them that you are offering a quality product with a particular value. You have to know exactly who you are dealing with: it means knowing their fears but also how they want to improve their lives thanks to the product you are selling.
- Try to improve your performance in SFSCs by extending the shelf life and expiry date of the products, for example. Remember that innovation must lead to a change; it is not only directly related to an invention.



DISTRIBUTION

Physical means to ensure access to its functional value. It is the combination of the transportation modes, the distances travelled and the weights of what is shipped. The Environmental Canvas





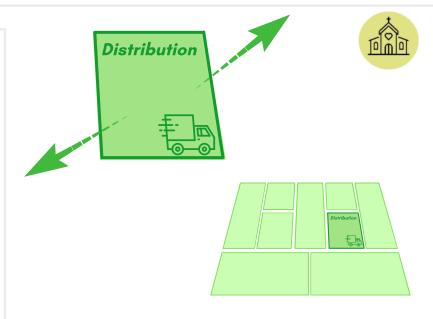
- Organise home delivery especially for those who would benefit the most from it, such as the elderly.
- Organise few trips between the producer and the consumer, but with large quantities each time, such as in a truck.
- Prefer eco-sustainable means of transport: the ideal condition would be an electric vehicle powered by a panel in the company.
- it is advisable not only to use sustainable means of transport but also to make their supply low environmental impact.

If you are a **Community Supported Agriculture** know that the distribution of food at collection points and its subsequent collection by subscribers aims to reduce the number of kilometers traveled by food, both from the point of view of kilometer 0 and from the point of view of environmental sustainability and community building.

It is important to strengthen the presence of these collection points in the territory as they become meeting places between producers and consumers and between consumers who, by building a network, can be encouraged to collaborate with each other by collecting the boxes of others, to further reduce the miles traveled by food.



If you are an on farm Seller consider that direct sales allow consumers to obtain fresh, healthy food at more reasonable prices and promote ecological sustainability, represented by reduced food miles and carbon emissions. Fewer food miles can translate into a lower level of environmental pressure due to the reduction of key factors such as air and soil pollution, loss of biodiversity and noise pollution.





The **COVID-19 pandemic** and the containment measures government applied worldwide, **have profoundly impacted food supply chain**, from producers to consumers.

The pandemic has contributed to the development of a new form of awareness about the importance of being resilient, of having knowledge of local farms and developing both social and environmental responsibility.

It is therefore crucial to strengthen **our research base** and **understanding of SFSC initiatives** in order to improve their performances.

Moreover, since the start of COVID-19 the **hygiene and safety** part of food became more relevant and showed how there is also a growing awareness among customers and members of SFSC of the social and environmental impact SFSC could make; SFSC indeed are a great place to educate and engage the community about **healthy food** and **the environment**.

Another key aspect that became relevant during the pandemic was the increase in importance of doing **business online**.



Due to Coronavirus pandemic situation, online shopping has strongly increased in the last year. In this new scenario, producers in SFSC should maintain contact and relationship with the local customers and community by using online tools, among which social networks.

It is therefore very important to have online sales channels, not only for large producers and retailers, but also for small local producers. It remains relevant to choose and define the model of the proper marketplace, make sure to organize the best home-delivery and carefully choose the packaging; the latter represents, in home-delivery, an important form of communication and customer care.





Introduce measures to reduce the risk of SARS-CoV-2 contamination through an assessment of the risk of consumer infection with SARS-CoV-2 during purchase in different types of SFSCs.

Following the increase in the use of online promotion and sales channels, due to consumer behaviour for the prevention of coronavirus, it is useful - and probably easier - to create more education and storytelling materials and activities, with the participation of various entities at the local level. This could help fostering SFSC's accessibility while making it more attractive for careful and well-informed consumers.



