



**CO-creating sustainable and competitive FRuits and vEgetableS'
value cHains in Europe**

**Deliverable 1.4.
Portfolio of innovative, sustainable, and competitive business models**

Responsible partner: Wageningen University (WU)

Document Identification

Project Acronym	CO-FRESH		
Project Full Title	CO-creating sustainable and competitive FRuits and vEgetableS' value cHains in Europe		
Project ID	101000852		
Starting Date	01.10.2020	Duration	42 months
H2020 Call ID & Topic	RUR-06-2020 - Innovative agri-food value chains: boosting sustainability-oriented competitiveness		
Project Website	https://co-fresh.eu/		
Project Coordinator	Centro Nacional de Tecnología y Seguridad Alimentaria (CNTA)		
Work Package No. & Title	WP1. Identification, Analysis, and Design of Innovative and Sustainable Agri-Food Value Chains		
Work Package Leader	Wageningen University (WU)		
Deliverable No. & Title	Deliverable 1.4. Portfolio of innovative, sustainable, and competitive business models		
Responsible Partner	Wageningen University (WU)		
Contractual delivery date	31/03/2022		
Actual delivery date			
Author (s)	Mahdad, Maral (WU); Cholez, Celia (WU); Pellegrini, Giustina (WU); Bijman, Jos (WU); Mehrabi, Sepide (UAL); Perez-Mesa, Juan Carlos (UAL); Giagnocavo Cynthia (UAL); de la Feld, Marco (ENCO), Mincione, Simona (ENCO)		
Contributor (s)	Daniel Acs (BEC), Emese Gyongyosi (OMKI)		
Review & Edit	Inés Echeverría Goñi (CNTA)		
Type of Deliverable	Report		
Dissemination Level	Public		
Version	0.3		

Disclaimer¹:

The opinions expressed in this document reflect only the author's view and reflect in no way the European Commission's opinions. The European Commission is not responsible for any use that may be made of the information it contains.

History of changes

Version	Author	Date	Comments
0.1	Maral Mahdad, Celia Cholez Giustina Pellegrini Jos Bijman	31032022	Intro by Maral Methods and compilation by Celia Conclusion by Giustina Review by Jos Addition of the portfolios sent by Marzia
0.2	Maral Mahdad, Celia Cholez Giustina Pellegrini Jos Bijman	01042022	First draft
0.3	Maral Mahdad, Celia Cholez Giustina Pellegrini Jos Bijman Simona Mincione	18072022	Revision and improvements on graphics in the business models sheets

Table of Contents

Abbreviations and Acronyms	6
Executive Summary	7
1. Introduction and background	8
Business Model for sustainability.....	9
2. Method	12
2.1. Selection of the 20 Business Models.....	12
2.2. Data collection on the 20 Business Models.....	14
3. Portfolio of business models	16
3.1. Espigoladors.....	16
3.2. Okokiste.....	17
3.3. Para Ti.....	18
3.4. Robin Food.....	19
3.5. Comunita Frizzante.....	20
3.6. De Nieuwe Melkboer.....	21
3.7. Grapoila.....	22
3.8. Vicasol.....	23
3.9. Tenuta Cole degli angeli.....	24
3.10. Agricolt Brandoni.....	25
3.11. Szimbiozis.....	26
3.12. Stadera Coop.....	27
3.13. Kozarova Farm.....	27
3.14. Agrokrüh.....	29
3.15. Terradivía.....	30
3.16. Cantina Dei Colli Ripani.....	30
3.17. Algreen.....	32
3.18. Somogyi Helyi Termék Egyesület.....	32
3.19. Lia Cultivator.....	33
3.20. Dehesa de Autor.....	34
4. Discussion and conclusion	36
References	43
Annexes	43
Annex 1: Task1.2. The survey addressed the 118 value chains.....	43
Annex 2: Business Model Template.....	55
Annex 3: Generic Interview Guide.....	58

Index of Tables

Table 1: Definitions of "Business model"	9
Table 2: Selection criteria of the 20 Business models.....	12
Table 3: The 20 selected Business Models.....	13
Table 4: Data collected on the business models.....	15

Abbreviations and Acronyms

Abbreviation / Acronym	Description
BM	Business Model
SOI	Sustainability-Oriented Innovation
UVP	Unique Value proposition

Executive Summary

The CO-FRESH project aims at designing innovative systemic approaches to improve the economic, social, and environmental performance of Fruits and Vegetable value chains and ensure sustainability through the smart integration of innovations. To achieve this objective, collaborative sustainable models that combine technological and non-technological innovations and dynamic capabilities should be designed, tested, and assessed in the value chains.

In this deliverable D1.4, the researchers propose a portfolio of 20 innovative, sustainable, and competitive business models in agri-food value chains, considering the three pillars of successful companies' value creation and capture strategies: a) value proposition, b) collaboration dynamics and c) firms' dynamic capabilities. These BMs were selected, on the basis of the inventory of value chains that have implemented sustainability-oriented innovations (Task 1.2 and Task 1.3), and with a special attention to the models that strengthen farmers' position and that involve producer organizations, family businesses, and SMEs.

After presenting the 20 BMs, we propose a cross-cutting discussion of them according to their users and market channels, strengths related to their unique value proposition; collaboration success factors and obstacles, and dynamics capabilities.

This portfolio will be used in WP2 to select the most appropriate business model(s) for the pilot cases to be studied and will follow up in WP5 for the design of the business cases toolkit (T5.3).

1. Introduction and background

The CO-FRESH project aims to provide techniques, tools, and insights to make agri-food value chains more environmentally sustainable, socio-economically balanced, and economically competitive. It does so by promoting collaborative models that support the achievement of sustainability objectives through the combination of technological and non-technological innovations, by designing, testing, and assessing innovative business models, improving value chain transparency, and enhancing fair distribution of costs, risks, and benefits along the value chain.

The main objectives of Work Package 1 (WP1) are to identify, analyze and design innovative and sustainable agrifood value chains. WP1 reviewed the literature on sustainability-oriented innovations in agrifood value chains (Task 1.1), provided an inventory of more than 100 innovative and sustainable value chains in European food systems (Task 1.2), built a conceptual framework that can be used to improve the innovativeness and sustainability of agri-food value chains (Task 1.3), and will assess the business models used in innovative and sustainable value chains (Task 1.4), and will provide an inventory and analysis of the impact of the main public policies relevant for strengthening sustainability-oriented innovations in food value chains (Task 1.5).

D1.1, as a result of Task 1.1, introduced a definition of sustainability-oriented innovation (SOI) as “A collaborative process of change directed at improving one or more of the three pillars of sustainability (i.e., environmental, economic, and social), relying on a diversity of bundled innovations (notably technological, organizational and institutional), and whose benefits are fairly distributed among the value chain actors”. Based on this definition, we created an inventory of European agri-food value chains that have implemented one or more sustainability-oriented innovations. The deliverable D1.2 presented the list of the 100+ value chains and their characteristics, with a special focus on the type of innovation implemented and the partners involved in the collaboration. By looking deeper into this inventory, we have selected 20 focal firms within these value chains and investigated their business model.

This deliverable D1.4 presents the portfolio of innovative, sustainable, and competitive business models in agrifood value chains. Special attention has been given to business models that strengthen farmers’ position in the agri-food value chain, and that involve producer organizations, family businesses, and SMEs. This portfolio will be used in WP2 to select the most appropriate business model(s) for the pilot cases to be studied and will follow up in WP5 for the design of the business cases toolkit (T5.3).

The D1.4. report is designed as follows; the next section presents the rationale behind the sustainable business model based on literature. Chapter 2 describes the selection method and criteria that were considered for creating this portfolio. Chapter 3, presents the portfolio of 20 business models. Chapter 4 discusses the main features of the sustainable business models and provides conclusions.

Business Model for sustainability

In the realm of sustainability, increasing attention has been paid to how companies create and capture value emphasizing Business Models as a tool not only to communicate the value proposition strategies but to operationalize sustainability pillars. Business Models become an inevitable part of successfully implementing SOI in value chains within the context of the Co-Fresh project. To better understand how successful focal firms within their representing value chains strategically create and capture value, we take a deeper look into 20 successful business models in detail.

The Business Model as a tool has received various definitions by strategic management scholars; several common definitions are summarized in Table 1.

Table 1: Definitions of "Business model"

Author(s), Year	Definition
Amit & Zott, 2001	"The content, structure, and governance of transactions designed to create value through the exploitation of business opportunities" (p. 511)
Chesbrough & Rosenbloom, 2002	"The heuristic logic that connects technical potential with the realization of economic value" (p. 529).
Magretta, 2002	"Stories that explain how enterprises work. A good business model answers Peter Drucker's age-old questions: Who is the customer? And what does the customer value? It also answers the fundamental questions every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to customers at an appropriate cost?" (p. 4).
Casadesus Masanell & Ricart, 2010	"A business model is . . . a reflection of the firm's realized strategy" (p. 195).
Teece, 2010	"A business model articulates the logic, the data and other evidence that support a value proposition for the customer, and a viable structure of revenues and costs for the enterprise delivering that value" (p. 179).

The definition of a business model has historically evolved from only focusing on internal components and encompassing external components such as customers, stakeholder relations, and process of value creation (Ileana et al., 2021). In addition, business models are considered a valuable framework for organizations' transformation toward sustainability (Bocken et al., 2015). The evolving focus on companies' external environment and stakeholder relations integrated with a focus on sustainability characterizes a new stream of literature on sustainable business models (SBM). According to Goni et al. (2021), three features differentiate sustainable business models from conventional business models: 1) the value creation objective encompasses multiple stakeholders (Abdelkafi and Tauscher, 2016); 2) giving equal importance to non-financial forms of value proposition including social and environmental value (Bocken et al., 2014); and, 3) representing value loss to realize the negative impacts on sustainability (de Pádua Pieroni et al., 2018). The sustainable business model concept integrates sustainability principles and goals into profit-oriented business models and value chains (Geissdoerfer et al., 2018). Based on this definition, the sustainable business model is a business model placing collaborations at the core. Geissdoerfer et al. (2016) defined a sustainable business model as "a simplified representation of the elements, the interrelation between these elements, and the interactions with its stakeholders that an organizational unit uses to create, deliver, capture, and

exchange sustainable value for, and in collaboration with, a broad range of stakeholders” (p. 1219). The business model for sustainability, or sustainability-oriented business model, and sustainable business model concepts are often used interchangeably by sustainability scholars and practitioners.

A business model for sustainability “helps describe, analyze, manage, and communicate (i) a company’s sustainable value proposition to its customers, and all other stakeholders, (ii) how it creates and delivers this value, (iii) and how it captures economic value while maintaining or regenerating natural, social, and economic capital beyond its organizational boundaries” (Schaltegger et al., 2016, p. 6). The overlap of both conceptualizations is that the success of sustainable business models and business models for sustainability depends on the collaboration of the focal firm with stakeholders across the organization’s boundaries to exchange resources, increase efficiencies and create a sustainable market for innovative products or services (Van Tulder et al., 2016).

Developing sustainable business models for agri-food is a must due to the sector’s strong connection to nature and society (Franceschelli et al., 2018). Although there are numerous studies on the relevance and importance of developing sustainable business models for agri-food, the value chain collaboration is not fully explored and represented in sustainable business model research.

Transitioning from a conventional business model to a sustainable business model requires firms to have the capabilities to change and respond to change. Dynamic capabilities as a strategic management concept focuses on how companies integrate, build and reconfigure their internal and external competencies to respond to changing environments (Tece, 2007).

Sustainable business models promise firms to gain a competitive advantage so do dynamic capabilities are used to gain competitive advantage. Therefore, we look at the three pillars of successful companies’ value creation and capture strategies: a) value proposition, b) collaboration dynamics and c) firms’ dynamic capabilities.

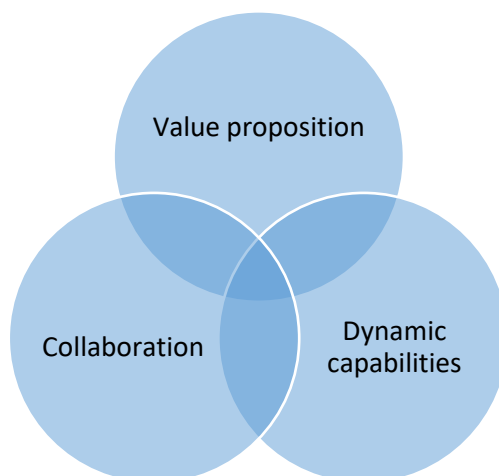


Figure 1 Operational framework for the data collection

Value proposition:

describes the value the company promises to offer to customers. The value proposition is communicated to customers directly, and a successful value proposition convincingly turns early adopters into loyal customers. In the value proposition strategy, we address mainly internal strategies implemented by the focal firm to create and capture value:

Unique value proposition (UVP):

describes What does the SOI solution do better than its equivalent competitors, what are the benefits for customers and stakeholders, and how the UVP brings a competitive advantage to the company.

The market for SOI:

describes the market segments in which the SOI is successfully implemented.

Farmers' role:

describes how and if the farmers' role was empowered with the value proposition strategy of the company.

Market channels:

describes through which communication strategies SOI reached the end-user.

Activities:

describes the main activities the focal firm undertakes to create value.

Resources:

describes the resources the focal firm depends on for delivering the value.

Collaboration dynamics:

For a successful value proposition, companies rely on collaboration with other value chain actors. The depth and breadth of collaboration, its success factors, and its feature impact value proposition strategies. In the collaboration dynamics, we look into strategic collaborations that focal firms have to create and capture value. In addition, we look into these collaborations' success factors and obstacles.

Dynamic capabilities:

The ability of focal firms, to modify their internal capabilities and external relationships and respond to change, impacts successful value proposition. For the dynamic capabilities, we look into the changes in the market and market conditions and how focal firms address these changes and adapt to new conditions.

2. Method

2.1. Selection of the 20 Business Models

In Task 1.2. of the CO-FRESH project, we realized an inventory of 118 European agri-food chains that have implemented sustainability-oriented innovation. This inventory can be consulted in *Deliverable 1.2. List of value chains*. During the Task 1.2. and Task 1.3., a questionnaire was addressed to one focal organization of each value chain, to characterize in more detail the sustainability-oriented innovation processes:

- (i) its diversity (product, process, and organization innovations),
- (ii) its direction and distribution of the benefits (social, environmental, and economic),
- (iii) its degree of collaboration (type of collaboration partners and activities) and,
- (iv) its success factors

The details of such a questionnaire are available in **Annex 1**.

The previous participation in this Task 1.2. the questionnaire, as well as the willingness and availability to participate in the Task 1.4 activity, was a prerequisite to be selected for the BM portfolio.

In addition to that, selection criteria were defined by the researchers. Table 2 summarizes the selection criteria by priority order.

Table 2: Selection criteria of the 20 Business models

Priority	Selection criteria	Rationale
1	The impact of the Business Model on farmer benefits	The selected BMs should strengthen farmers' position in the value chain, as this is one of the core objectives of the CO-FRESH project.
2	The position of farmers in the collaboration for sustainability-oriented innovation	The BM portfolio should represent a diversity of collaboration partners, preferably including the farmers
3	The type of sustainability-oriented innovations	The BM portfolio should represent a diversity of innovations, both products, processes, organizations, and institutions.
4	The relevance of the seven pilot cases	The BM portfolio should be a source of inspiration for the pilot cases.

The legal forms of the organizations, their maturity (start-ups or mature), the countries and types of fruits and vegetables in which they operate were not considered selection criteria.

We systematically screened the organizations that were inventoried in *Deliverable 1.2. List of value chains* according to these criteria. After several backs and forth between the researchers, we came out with a selection of 20 Business Models. Table 3 presents the 20 Business Models selected for the portfolio.

Table 3: The 20 selected Business Models

BM code	Name	Country	Type of organisation	Date of creation	Type of F&V value chain
A	Espigoladors	ES	Foundation	2014	various
B	Okokiste	GE	Farmer group	1995	various
C	Para Ti	BE	SME	n.a	various
D	Robin Food	BE	SME	n.a	various
E	Comunita Frizzante	IT	SME	n.a	citrus
F	De Nieuwe Melkboer	NL	SME-farm	2017	grain legume
G	Grapoila	HU	SME	2010	rosehip and oilseeds
H	Vicasol	ES	Farmer cooperative	1979	various
I	Tenuta Cole degli angeli	IT	SME-farm	n.a	grape
J	Agricolt Brandoni	IT	SME-farm	n.a	various
K	Szimbiozis	HU		n.a	
L	Stadera Societa Cooperativa	IT	Consumer cooperative	2020	various
M	Kozarova Farm	SK	SME- farm	n.a	pumpkin
N	Agrokruh	SK	Farmer cooperative	n.a.	various
O	Terradiva	IT	SME	n.a.	almond
P	Cantina Dei Colli Ripani	IT	Farmer cooperative	n.a.	grape
Q	Algreen	IT	SME	n.a.	spirulina
R	Somogyi Helyi Termék Egyesület	HU	Farmer association	2018	various
S	Liá Cultivators	GR	SME- farm	1975	olive
T	Dehesa de Autor	ES	SME	n.a.	acorn

2.2. Data collection on the 20 Business Models

Table 4 presents the type of data we collected to:

- (i) describe the business models
- (ii) analyze their relation to the collaborations for sustainability-oriented innovation (SOI)
- (iii) explore their dynamic capabilities

The approach for collecting this information was qualitative and based on the combination of different sources of information. First, we capitalized on the responses to the questionnaire developed in Task 1.2. and Task 1.3. And second, we conducted semi-directed interviews with the T1.2. respondents to complete some information.

For completion of T1.4 data collection, we created and use a template. The main purpose was to guide the extraction of the relevant information from the T1.2. survey responses, to prefill the document and to identify the gaps and the additional data that needed to be collected for each BM. **Annex 2** presents this template. Based on the identification of the missing information, a tailor-made interview guide was prepared for each BM interview, based on the generic interview guide presented in **Annex 3**.

The interviews were realised between February and March 2022 with at least one person in each organisation. The respondents had different positions in their organization: founder, CEO, marketing director, project manager, etc. The interview was done by phone, videocall, or face-to-face; and was lasting approximately one hour. Whenever possible, the interviews were recorded and the transcripts will be used for further scientific analysis in the CO-FRESH project.

The collected information was summarized for each business model in a synthetic poster, presented in the next Chapter. These posters only present the information that can be publicly disseminated.

Table 4: Data collected on the business models

Thematic	Elements	Corresponding questions
Business Model description	Unique value proposition	<i>What does the solution do better, what are the benefits, what does the user/customer want, what distinguishes it from the competition/current solutions?</i>
	Description of the value proposition	<i>What is the solution the company offers, to which problem?</i>
	Target Market	<i>In which market the sustainability-oriented innovation product/service will be used and can "compete"?</i>
	Farmers role	<i>What is the position of the farmers in the business strategy?</i>
	Market channels	<i>What are the market channels and how the sustainability-oriented innovation reaches early adopters?</i>
	Main drivers and barriers	<i>What were the main drivers and barriers in the sustainability-oriented innovation process?</i>
	Activities	<i>What are the main activities and processes?</i>
	Resources	<i>What are the tangible and intangible resources?</i>
Collaboration for Sustainability-Oriented Innovation (SOI)	Collaboration process	<i>With who and for what does the business initiate a collaboration for sustainability-oriented innovation?</i>
	Success factors	<i>What were the factors positively influencing the collaboration for SOI?</i>
	Obstacles to overcome	<i>What were the obstacles during the collaboration for SOI and how could the company overcome them?</i>
	Collaboration and Business model	<i>How did the company align its business decisions with its partners? How did they come to an agreement? How did these agreements influence the value proposition strategy?</i>
Dynamic Capabilities	Identification of opportunities and adaptation	<i>How does the company identify opportunities when there is a market change? How does the company address these changes and adapt to new conditions?</i>

3. Portfolio of business models

3.1. Espigoladors

ESPIGOLADORS



espigoladors

ESPIGOLADORS is a Spanish organisation that valorises leftovers of fruit and vegetables production. After regular harvesting, they do a "second harvesting" to collect imperfect or ugly pieces of fruits and vegetables which do not enter the commercial market due to their (un)aesthetic characteristics. Gleaned fresh products with the help of volunteers are donated to social organisations. Moreover, part of fresh products purchased from farmers goes to the central kitchen to manufacture different preserves; jams, creams, sauces & pâtés. Additionally, the central kitchen allows hiring people at risk of social exclusion (young people and women over 45 years) to find a job opportunity in an organisation that empowers them and increases their self-esteem. "Es im-perfect®" is the commercial brand of their canned products. The price of the products may be higher than similar products in the market.

We fight for a better food usage



Target Users

- Local people who care about environmental and social problems, looking for sustainable, local and fair-trade products



Market Channels

- Social entities local stores
- Big supermarkets
- Restaurants and hotels



Strengths

- Direct and constant communication with all stakeholders to make sure people are happy and having agreement with them when needed
- ESPIGOLADORS measures the social impact of their activities annually with the help of the research and action team. They implement pilot studies before initiation of an innovative idea



COLLABORATIONS

Due to farmers and farmers unions agreement, none of the gleaned products are allowed to enter a central kitchen production line. So, they have divided their commercial business activities in the central kitchen and officially signed a none-compete agreement to avoid selling gleaned fruits and vegetables or using them in canned products. In the beginning, they delivered gleaned products to the social entities directly, but now social entities come directly to the farm to collect the gleaned products. The initiation of collaborations was usually started as a pilot, and after the successful experience, they signed the agreements with stakeholders.



Success Factors

- Having a personal relationship with their partners located in the same region
- Being culturally close with their partners
- Having complementary knowledge and skills
- Maintaining face to face interaction with them



Obstacles to Overcome

- To cope with the regional administration law restrictions (in Andalucía and Extremadura) that prohibit gleaning activities.
- To constantly negotiate with local authorities to reach agreement for gleaning activities
- To maintain collaboration with new farmers (this is overcome by pilot practices and sharing the results of successful experiences with them)

In ESPIGOLADORS we give second opportunities to ugly and imperfect fruits and vegetables and to beautiful people

DYNAMIC CAPABILITIES

The entrepreneurial spirit of the founder of ESPIGOLADORS and her persistence, resilience, and network help them benefit the most from the opportunities/threats in the market. For instance, during the pandemic lockdown, all activities of the central kitchen were stopped. So vulnerable employees of the central kitchen were under pressure. Thus, they launched a crowdfunding campaign to maintain the employees in the central kitchen.



Additionally, during the pandemic, there was an increase in the number of people going to the food bank, so transferring donated food to social entities could not be stopped at the time of need. With the campaign's help, people working in schools could help in gleaning activities providing needed food for social entities.




This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000643.

D1.4.

Dissemination Level Public

16 / 58

3.2. Okokiste

ÖKOKISTE



Verband Okokiste e.V. (founded 1996) gathers about 45 enterprises that deliver 100% organic products within a radius of about 30-60 kilometres around each enterprise. They deliver eco-box through online platforms, and they are scattered all over Germany. All members are committed to topics such as animal and environmental protection, social production conditions, and local organic farms' support. Each member of Verband Okokiste has voluntarily committed to a high-level independent process of certification.

We deliver fruits, vegetables, and future



Target Users

- Private persons and families
- Enterprises
- Schools and kindergartens



Market Channels

- Each member of Okokiste has its own website with a shop system



Strengths

- The doors are open, the clients are regularly invited to visit the farm, to be part of so-called "Solawis" (Solidarische Landwirtschaft: solidary agriculture) or engage politically

COLLABORATIONS

Okokiste members have fixed cooperation agreements with their regional customers, which gives both sides a reliable basis for planning. Their values are defined as follows: "100% organic, diverse & transparent, local & sustainable, fair & social, regional & seasonal." They have a clear guideline for their daily actions.



Success Factors

- Maintaining frequent face-to-face interactions and having common expectations with partners about the innovation outputs are very important factors for success in collaboration



Obstacles to Overcome

- To have clear insight into the production conditions of the farmers and ensure the needed amount of fruits and vegetables
- To connect with marketing consultants that are experts in the specific field

Because organic is not enough for us

DYNAMIC CAPABILITIES

They address especially the young generation by continuously developing, establishing, and improving convenient apps for the ordering process. "Nowadays, where newcomers like Knuspr & Co. are urging the market, we refer to our basic values to make the difference clear. These values are: 100% organic, diverse & transparent, local & sustainable, fair & social, regional & seasonal."






This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 101000482

3.3. Para Ti

PARA TI



Para Ti is a merchandising shop, where everything happens automatically, so the shop can be open 24 hours a day, 7 days a week. However, their products are either exempt from transformation processes such as fruit, vegetables and eggs, or have undergone a slight process such as bread, spreads, meats, dairy products. The shop stocks fruit & vegetables, dairy products, baked goods, beer and much more from 90 local suppliers.

Currently, there is a trend where the neighbourhood shops are increasingly disappearing. Local food is quite dispersed, so people go to different places to find all they need. So that's why we combined community and technology in our solution



Target Users

- Middle to upper class customers
- Working people who commute from work to home



Market Channels

- Word of mouth
- Limited marketing activities



Strengths

- Making local food accessible to the neighbours is the winning strategy of Para Ti. The technology that Para Ti uses for the food distribution to customers is unique and makes them competitive in the market. They sell locally produced products at a lower price compared to supermarkets.

COLLABORATIONS

Exchanging knowledge and ideas with producers, farmers, and customers. Para Ti established a flow of knowledge and information exchange with producers and farmers. Para Ti plays a significant role as a value chain orchestrator and act as a bridge between producers and customers. Customers' needs are at the core of their business model and reason for their high level of flexibility.



Success Factors

- Trust in their partners
- Value alignment of all partners
- Informal agreements and networks



Obstacles to Overcome

- To face the mentality misalignment among different actors
- To support the technology adoption by older customers

Our flexibility of including what customers want in the business model is our strength.

DYNAMIC CAPABILITIES

Being flexible and responsive to change is what Para Ti aims for entrepreneurial mindset. In addition, their ability to take risks is a major force for identifying opportunities. Young entrepreneurs are very aware of the company's competitive advantage and weaknesses, thus allowing tackling change when it is required.






This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 101019082

3.4. Robin Food

ROBIN FOOD

Robin food originally started from the idea to have a solution against two main issues: i) Food waste; ii) people who are in need of healthy, sustainable and affordable food. Experimenting with these two problems and finding ways to encounter it, was the reason why Robin food came to existence. The company has the triple win mission: a) impact on food waste, b) impact on companies, employing vulnerable in business, and c) impact on healthy meals for children.

Robin Food is run by volunteers keeping prices low and making food about getting together

Target Users

- Regular supermarkets
- HoReCa
- NGOs or social enterprises with similar missions

Market Channels

- Direct contacts
- Online contacts

Strengths

- Robin food's uniqueness compared with other initiatives is its name, as it echoes the message quickly and efficiently. The communication channel succeeded in creating this strong link with Robin food customers

COLLABORATIONS

Robin Food stays very committed to their mission and vision when selecting collaborating partners. They believe the value alignment among collaborating partners is the first step of establishing partnership. In addition, Robin Food transparently communicates their triple win strategy to the potential collaborators to prepare a fruitful collaboration basis. If there will be attractive investors following the same vision which is fighting the food waste, Robin Food allows flexibility in the Business model.

Success Factors

- Support of parent organisations
- Strong network with other social enterprises
- Reputation with collaboration with strong actors like supermarkets

Obstacles to Overcome

- To deal with legal aspects when establishing formal agreements with supermarkets
- To cope with idea protection mechanisms that are weak at the starting phase
- To deal with different organisational culture between non-profit and for-profit organisations and adapting to that change
- To overcome value misalignment between the non-profit and for profits organisations

Learning by doing is our main way to grow in our mission and overcome challenges

DYNAMIC CAPABILITIES

If you and your business model are not flexible enough, you will never survive the change. The entrepreneurial mindset at Robin food allows for flexibility and change. Also, the company has the capacity to take risk and perform on a trial and error to adapt to new market conditions.

After successfully operating for two years, they are planning to dedicate 2% of their profit to similar projects. For example, in Belgium 1 out of 5 children go to school without a healthy meal. They plan to donate 2% of their profit to these types of initiatives for healthier dietary patterns.

CO FRESH

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska Curie Grant Agreement No 101019092

3.5. Comunita Frizzante

COMUNITA' FRIZZANTE



Comunita Frizzante business started as a circular economy project realized by a social association to valorise by-products. Now Comunita Frizzante is a large reality, significantly relying on its huge network. Citizen groups, schools, and associations are part of this concept. Comunita Frizzante has no infrastructures, no production facilities, no warehouse, as the production is done by the partners in the network.

“ We use unique ingredients to co-create a tasty and diverse product with our community ”



Target Users

- Coffee shops
- Restaurants
- Small local organic stores
- Wholesalers



Market Channels

- Direct contacts



Strengths

- Innovative and healthy products
- Non-industrial sparkling juices

COLLABORATIONS

The collaboration with the network of partners and customers is key for the success of Comunita Frizzante. Local actors are involved in each phase of the project. They work closely with the different local communities (like farms) but also with international partners (like the fizzy drinks makers from UK). For them, the production of drinks itself is instrumental to engage with people, to cultivate relationships, and to stimulate local knowledge.



Success Factors

- Private institutes for developing new products
- Huge and consolidated network



Obstacles to Overcome

- To search for raw materials that are high quality, available in required quantity and compliant with relevant legal requirements
- To create a network of suppliers and customers that perfectly match with the product concept
- To make the products affordable and competitive for the customers

“ Our interest is having a direct dialogue with our customers ”

DYNAMIC CAPABILITIES

The small size of the company has required small investments. This makes it flexible in responding to market changes. The flexibility is also achieved by privileging direct contacts with small organisations rather than with supermarkets. This leads also to a certain freedom to operate in the market.







This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 101009182

3.6. De Nieuwe Melkboer

DE NIEUWE MELKBOER (DNMB - THE NEW MILK MAN)



De Nieuwe Melkboer (DNMB) is a business run by two brothers – Bart and Tom Grobben – who jointly own a farm with crops and dairy cows. DNMB is producing soy-based dairy products. DNMB was established in 2019, in the Netherlands. DNB produces the soybeans, processing the beans into soy milk and other soy-based dairy products.

When I lived in Amsterdam I realised that there is a huge market potential for plant-based dairy products



Target Users

- Customers that demand healthier and plant-based products



Market Channels

- Online food platforms (such as online supermarkets (CRISP))
- Traditional channels, like coffee shops, restaurants, food wholesalers
- Speed delivery companies



Strengths

- The local soy-based dairy products gained a great environmental image because it is based on soybeans grown in The Netherlands. It entails a lower environmental footprint (mainly CO2 reduction and less energy used) than soy drinks based on imported soybeans. This is in line with the trend for market demand for food products that are regionally produced and with a lower environmental footprint.

COLLABORATIONS

Recently, a strategic alliance has been signed with Agrifirm, a large feed and arable crop inputs cooperative. Agrifirm is experimenting with new crops for Dutch agriculture (including soybean) and is dedicated to supporting Dutch farmers in making the transition towards more sustainable farming. Originally, Agrifirm was focussing on large-scale soybean production in the Netherlands, but they now focuses on small-scale innovation initiatives. Currently, Agrifirm and DNMB experiment with new soybean varieties (focusing also on taste and ease of processing, not just yield), and they jointly explore scaling up of drying, cleaning and storing of soybeans.



Success Factors

- DNMB is highly capable of developing and commercialising plant-based dairy products. Agrifirm has a good reputation of supporting innovation in Dutch agriculture, as outstandingly done with DNMB's initiatives, now going to be replicated to other farmers



Obstacles to Overcome

- To properly manage formal agreements with large partners that require (costly) legal advice.
- To focus efforts on brand establishment and communication, especially with new partners to demonstrate the company reliability

We had the resources (land and facilities) to start a plant-based dairy company

DYNAMIC CAPABILITIES

We strongly believe that society should make the transition to more sustainable food systems, which includes a (partial) shift from animal to plant-based proteins. We both studied at Wageningen University, and we have worked in various organisations and companies.






This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 101000982

3.7.Grapoila

GRAPOILA



GRAPOILA (Virgin Oil Press Kft.) is a Hungarian company, created by Marianna Pinczés in 2009. Their core activity is the production of cold-pressed seed oils based on a zero waste concept. Thanks to innovations in processing technologies and product development, the company utilises by-products of other food industries, notably pomace from the wineries and rosehip seeds from tea and jam makers. They produce high-quality gourmet food products and natural cosmetics, such as seed oils, flours, cosmetic oil muds, lip balms and soaps. Besides the grape seeds and rosehip seeds, GRAPOILA utilises 20 other types of oily seeds, such as pumpkin seeds, linseed and poppy seeds.

In addition to being environmentally friendly, our other main motivation is to create good quality products that are very tasty

Target Users

- Individual consumers looking for tasty and healthy natural products
- Partner companies in the food and cosmetic industry

Market Channels

- Own brand products sold to individual consumers on their company's website
- B2B with food and cosmetics companies, who use the products as base materials or marketing them under their own brand's names
- GRAPOILA's sales mostly concern Europe, although the USA, Taiwan and Japan are also among its trading locations

Strengths

- Zero waste concept that utilises all by-products
- Cold-pressing technology that preserves oil taste, composition and properties
- Locally sourced raw materials
- Natural alternative for cosmetic ingredients
- Engagement in urban development and agri-food sustainability educational programs

COLLABORATIONS

GRAPOILA has established various collaborations. Firstly, they collaborated with a private company and also relied on personal contacts with engineering expertise to innovate their cold-pressing technologies. Today, they have their own R&D department. Secondly, they established collaborations with farmers, wineries, tea and jam makers to secure the quantity and quality of the raw materials. Thirdly, they collaborate on various topics with an NGO 'Responsible dining' that works with Hungarian restaurants to make them more sustainable.

Success Factors

- Having a common vision and mutual interests with partners is key for starting a collaboration
- Despite the use of contractual arrangements, trust is crucial for a long-lasting business relationship, which entails maintaining frequent face-to-face interactions

Obstacles to Overcome

- To deal with the yield variability of certain crops due to climate change
- To cope with the unpredictability of crop market prices
- To adapt to the fluctuation in the Hungarian agricultural labour market

In every collaboration trust is the most important thing

DYNAMIC CAPABILITIES

Research and development is considered as a key factor for adapting to external changes and to be ahead of the market. An open-minded spirit and continuous experimentation on the technological processes, the product development and marketing is at the core of the GRAPOILA philosophy. Visits to fairs and food expositions (for example Gulfood or the World Expo 2020) are also part of the routine to meet new customers and to be aware of developing trends.






This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 101009132

3.8. Vicasol

VICASOL



Vicasol was established in 1979 as a transformation agrarian society, becoming a cooperative society later. It is an Andalusian cooperative society dedicated to the cultivation and marketing of fruit & vegetables from the province of Almería (Andalusia, Spain), based in Puebla de Vicar. Vicasol's strategy is to be considered a cooperative company of family production that produces fruits and vegetables of "proximity" throughout Europe. Proximity" is understood as fluid communication with the final consumer (transcending the intermediary) so that they know the efforts made by family farmers to improve the sustainability and taste of their products.

We are a family of more than 3000 people, counting farmer partners and employees



Target Users

- Members and workers of the cooperative
- including field employees in the greenhouses
- Other persons in the area



Market Channels

- Traditional retail shops
- Traditional export channels
- Wholesalers and traders



Strengths

- Vicasol combines a cooperative vision oriented to the family production of fruits and vegetables "de primor", sold through traditional export channels, with another OWN system of local sales
- Vicasol guarantees the same quality, wholesomeness and flavour for all its consumers, whether local, national or international

COLLABORATIONS

VICASOL shows total transparency in all decisions taken with their internal and external partners. This project is framed and publicised within their annual Corporate Social Responsibility report. It is known and valued by all interested parties. This Business Model is part of Vicasol's general strategy of becoming a local and international proximity supplier while maintaining the same quality standards, regardless of where its product is sold.



Success Factors

- The establishment of a network of local suppliers (cheese, wine, preserves, etc.) which can benefit in the future from VICASOL's international sales network
- Increased sense of belonging among employees



Obstacles to Overcome

- To negotiate stable funding lines with the members.
- To regularly communicate with the members (training, interviews, presentation of results) to make them see the convenience of the project

Our company has four manipulation centres and one of them is exclusively dedicated to ecological products

DYNAMIC CAPABILITIES

The cooperative's own management promotes communication channels with members/employees, customers, and other stakeholders so that they, in their sphere of action, report on current market trends. These mechanisms ensure that new innovations are quickly transferable to the cooperative.

The project is included in Vicasol's Corporate Social Responsibility initiatives. This mechanism frees up the partner's financial resources and thus avoids problems. It also facilitates the transfer (publicity) to society, and even to traditional customers (large European distributors).





This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No.101001012

3.9.Tenuta Colle degli Angeli

TENUTA COLLE DEGLI ANGELI



Azienda Agricola Tenuta Colle degli Angeli is a winery located in the Emilia-Romagna region of Italy. They offer an innovative, healthy, and one-size-fits-all product: a special flour obtained from grape extracts.

“ We believe in love, respect and care for nature and people, to be able to offer our customers the best products ”



Target Users

- Bakeries
- Pasta makers
- Final consumers



Market Channels

- Direct contact with local bakeries & pasta makers
- Online shops



Strengths

- Organoleptic properties of the grape-based flour
- Products are healthy and well controlled

COLLABORATIONS

The interaction between suppliers and customers is very important to have a high quality final product that meets the customers' expectations. The direct collaboration and dialogue established with the technology providers is extremely important to make the final product homogeneous, stable, and adapted to different target segments, both in bakery and pasta making.



Success Factors

- Exchanging ideas with technology providers and customers to create a homogeneous and easy-to-use product



Obstacles to Overcome

- To obtain the required quality of the final product
- To find a technology provider to adapt the milling process

“ Our wines were born to be shared! ”

DYNAMIC CAPABILITIES

If the market changes, they would be ready to respond, also thanks to their attitude to follow the trend (especially trends related to organic and sustainable production).






This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 101019042

3.10. Agricolt Brandoni

AGRICOLT BRANDONI



Agricolt Brandoni is an agricultural company producing cereals and vegetables for the food industry. They developed a patent on micro-grafting process on seedlings. This innovation was awarded by Confagricoltura (The General Confederation of Italian Agriculture).

“ We consider the development of agriculture important for the benefit of the community, the environment and our territory ”



Target Users

- Farmers and producers' organisations



Market Channels

- Direct contacts



Strengths

- Huge network of farmers

COLLABORATIONS

Agricolt Brandoni changed the collaborative approach with their suppliers from standardized to customized production. Additionally, the acquired patent positively affected their brand since it lead to an increased reputation and a well established recognition.



Success Factors

- The different collaboration approaches with suppliers generated benefits for both parties
- The reputation of the organization



Obstacles to Overcome

- To create the right communication strategy to make their products well-known
- To switch the "old" ideas of farmers to new concepts

“ Together we work, celebrate, fight, laugh, study, think, have new ideas and the doors of our company are always open ”

DYNAMIC CAPABILITIES

Their philosophy is to observe reality, so they are ready and able to anticipate market changes. Playing ahead of time made them properly act and continue their growth.






This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 101019182

3.11.Szimbiozis

SZIMBIOZIS



Szimbiozis is a social enterprise, working for improving the conditions and providing livelihood to people with special needs, the homeless, and ex-prisoners by employing them on the social farm. To operate and develop the social activities, Szimbiozis produces, and sells products and services. This organisation produces jam, syrup, and goat cheese using a traditional and craft system using organic fruits (local ecotypes and ancient varieties) and goat milk.

Eat good and do good



Target Users

- Consumers (families)
- Retailers and small grocery shops
- Ho-Re-Ca (elite hotels and restaurants)



Market Channels

- Sales outlets and local markets
- On-line shop
- Workshops within the social farms and national food events
- Food delivery
- B2B (retailers, small shops, tour information offices, hotels and restaurants)



Strengths

- Training activities on social farming
- Agreements based on fair prices and short- term payment
- Improving the inclusion and life conditions of workers with special needs

COLLABORATIONS

There is an exchange of ideas and knowledge with farmers or farmers' organizations and retailers. Szimbiozis has worked with different universities and research institutes. These public organisations support the social enterprise in i) improving the inclusion of people with special needs, ii) improving the communication with the customers/ institutions, ii) developing tourism initiatives which allow to acquire many consumers and visitors.



Success Factors

- Direct contact with the consumers that allows to understand and collect their needs/expectations/ behaviour towards each product
- Research institutes and universities support



Obstacles to Overcome

- To cope with the lack of trust among VC actors that makes the collaboration very difficult

The diversification of the business allows it to be more flexible to market needs

DYNAMIC CAPABILITIES

Szimbiozis is a quite flexible organisation, and they can quickly get along with any kind of changes in the market. The diversification of the business activities and the simple structure allows Szimbiozis to be more flexible to market changes.




CO FRESH

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000842.

3.12. Stadera Società Cooperativa

STADERA



STADERA Società Cooperativa is an Italian food cooperative created by Enrico De Sanso in 2020, in Ravenna. The cooperative has more than 300 members that are both the owners and the customers of the shop. The aim of STADERA is to deliver sustainable (food and non-food) products at affordable prices, but also to create a real social network of consumers. By giving 3 hours of their spare time to help in managing the activities of the shop, the members contribute to reduce the operational costs and to create a community awareness about agrifood chains. The shop comprises mostly organic, local and handmade products (80%).

**More than a supermarket,
we are a participatory consumer network**



Target Users

- People from the Emilia-Romagna region (families or individuals of all ages and professions)
- Every type of consumers willing to join the cooperative, since STADERA is still at its early stage and has potential for development and growth



Market Channels

- Own shop in Ravenna



Strengths

- A community of motivated consumers
- Affordable access to food with reduced mark-up on suppliers' price.
- Mostly local and organic products

COLLABORATIONS

STADERA is involved in different types of collaborations. Firstly, the collaboration between 300 members of the cooperative is strategic to ensure the proper functioning of the cooperative. The governance involves some thematic groups of active members, a team who coordinates the operational aspects with the board, and frequent general assemblies. Secondly, STADERA initiated some collaborations with other community-based groups of customers to develop a purchase platform, for optimising the sales and the logistic costs. Thirdly, they also started to collaborate with some universities, technological institutes and municipalities for studying and promoting the environmental benefits of selling bulk products.



Success Factors

- A good governance within the cooperative is key for the success of the project. This involves:
- To meet frequently, listen, exchange, and adapt continuously
- To build on the different competencies and motivations of the members
- To create a community culture going beyond the retailing activities



Obstacles to Overcome

- To start their activities during COVID-19 pandemic and adapt to social distancing measures, while social interaction is at the core of the STADERA business model
- To access to funding, since STADERA relies exclusively on the financial contribution of its members

Exchange with members and transparency in choices is our way to overcome any difficulty

DYNAMIC CAPABILITIES

The diversity of the consumer community is an asset to analyse the environment, propose new solutions, and implement them. As said by the founder Enrico De Sanso, "we are a very large community: 305 members mean 610 ears and eyes". All these individuals are welcome to share their ideas and are directly involved in the decision process, notably during general assemblies or within working groups. There is always room for changes or adaptations of the model.





Managing these discussion times, and this deliberative power is key for the success of the project.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000842.

3.13. Kozárová Farm

Kozárová Family Farm Pumpkin Value Chain



Kozárová farm is a Slovakian family business that manages an entire value chain for production of healthy food products from pumpkin seeds (oil and healthy snacks). The family has implemented innovations from farm to fork (agricultural production, added value processing and direct sale to consumers via their own shops). They are always seeking for new ideas and improvement on how to be technologically effective, as well as environmentally and socially responsible.

Family collaboration is our key strategy for sustainable success



Target Users

- Consumers who are sensitive to healthy diets and lifestyles
- Healthy food shops and restaurants
- Resellers for shops, bakeries and other entities



Market Channels

- Local farm shop in Malý Cetín (Slovakia)
- Own online shop
- Sale contractors - mainly small shops/stands of local and regional products in the shopping centres



Strengths

- Value-added products
- Own food processing plant
- Various market channels
- Nice packaging of products
- Environmentally friendly production processes by socially responsible farmers

COLLABORATIONS

While good relations between family members are a key element in the business model, collaboration with other entities is also essential for Kozárová farm. Two key collaborations were developed: firstly, they collaborated with neighbouring farmers to access land, ensure an adequate crop rotation for growing pumpkins, and share machinery; secondly, they collaborated with a processing company who was providing them high-quality seeds and buying the production of pumpkins in return. This later collaboration is becoming less important as Kozárová farm has been developing its own processing lines.



Success Factors

- Effective division of work and complementarity of skills between family members from different generations
- Ability to adapt quickly to the changing market conditions thanks to family business governance
- Good reputation and experience with external local partners



Obstacles to Overcome

- To reach agreements about land leasing with the lessors
- To be subjected to the price fluctuation of the products
- To cope with a not well-functioning packaging line
- To deal with unstable policies including policies for young farmers

The more opinions, the better solution - stakeholders' and consumers' opinion counts

DYNAMIC CAPABILITIES

The ability to adapt to any production challenges and market conditions is an important asset for Kozárová farm. Even the recent decline in their land leasing agreement has led the business to search for further opportunities. Therefore, they diversified their agricultural products-ready-to-cook potatoes.



The proximity with consumers through their own farm shop and their focus on the consumers' feedback is key for understanding consumers expectations, and trends evolution. Participation in fairs (such as Expo 2020 in Dubai) is also a way of finding inspiration on how to improve their work, products and impact on the society and the environment.

CO FRESH

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000842.

3.14. Agrokruh

AGROKRUH



AGROKRUH follows the idea of Ecology Zone, introduced more than 10 years ago by farmers and led to the creation of a cooperative with 8 members and 3 prototype farms. AGROKRUH sells fresh organic vegetables through a Community Supported Agriculture scheme and FreshBox pick-up points. The concept includes all the relevant technologies, training, and advisory services as a package, for supporting farms in optimising their practices concerning soil quality and the environment. Currently, AGROKRUH operates only in Slovakia, but it has a promising worldwide potential in agriculture.

High-quality soil, healthy food and strong relationships are the main pillars of AGROKRUH's Ecology Zone concept

Target Users

- Young nature-oriented families with access to 2-3 ha of land
- Protagonists of healthy lifestyle and sustainability
- Cities (in a smaller concept)

Market Channels

- Promotion activities with early adopters, such as agricultural secondary schools and regional authorities

Strengths

- Expertise in agriculture turned into a promising concept with a long-term perspective
- Environmentally friendly and socially responsible approach
- Innovative circular technologies, including digital ones
- Reduced costs for farmers, including labour costs
- Easy operation and repairing of the mechanical technology

COLLABORATIONS

Collaboration has always been a key element for the development of the Ecology Zone. Internally, the relationship between members that have different competencies and professional backgrounds is prosperous. Even though AGROKRUH has not benefited yet from any subsidy, they have developed their own R&D activities on technological innovations, sustainability, and social responsibility. In addition, several collaborations with external stakeholders have been developed, including technology providers, research institutes, universities, government agencies, innovation brokers, and consumers. The cooperation with agri-oriented secondary schools is based on providing complete AGROKRUH technology, including teaching materials.

Success Factors

- The diversity of competencies of the cooperative members
- The engagement for building long term relationships with external stakeholders

Obstacles to Overcome

- To complete the technology certification process initiated with a technology developer, so that the Ecology zone concept can be commercialised
- To convince old-fashioned farmers that are reluctant to new approaches
- To access funding since several investors are seeking quick return on investment while the technological development requires a lot of tests
- To operate in an unstable political environment with frequent changes at the top-level positions

Enthusiasm, knowledge, experience, and voluntary contributions of the cooperative members are the most essential resources to turn our idea into a practical concept

DYNAMIC CAPABILITIES

The concept of Ecology Zone is itself very flexible to environmental and market changes since it can be adapted to various contexts. AGROKRUH is continuously progressing to find different alternatives. For instance, the existing technology is fully mechanical, and therefore is very easy to operate and repair if needed; but AGROKRUH has also been developing a digital version of the technology. They are very active in innovative agricultural networks such as living labs and demonstration farms.



Environmental and social responsibility is a key motive of AGROKRUH, and the Ecology Zone concept already complies with the European Green Deal, therefore they can provide an innovative solution with a worldwide potential in agriculture.



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 101000822

3.15. Terradiva

TERRADIVA



Terradiva is an organic farm producing extra-virgin olive oil and almond-based products. The farm has been existing for generations and made continuous improvements including traceability, labelling, brand development, reduction of pollution and waste. The company offers high-quality and healthy products, characterized by innovative and environmentally sustainable practices.

“ We have chosen an agriculture that maintains and respects biodiversity ”



Target Users

- Informed consumers from 35 years old and up, aware of sustainability issues



Market Channels

- Small organic and delicatessen shops
- Small importers
- Online platforms dedicated to adopt trees



Strengths

- The farmers are the first actors working for sustainability goals
- Products are healthy and well controlled

COLLABORATIONS

When TERRADIVA decided to switch to plastic-free packaging, they found on-line new biodegradable packaging suppliers to collaborate with. They took their advice and made several fine-tuning attempts before deciding on what is their current packaging solution.



Success Factors

- Collaboration with packaging suppliers to obtain a biodegradable and durable packaging
- Relationship with suppliers based on mutual trust



Obstacles to Overcome

- To find appropriate suppliers delivering effective packaging suitable for their products

“ We'll be able to cope well with changes as we are versatile and flexible ”

DYNAMIC CAPABILITIES

Being a small business can be an advantage for being flexible. As an example, during Covid-19 pandemic, the company re-organized its business to provide products to small customers rather than supplying restaurants.






This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101019092

3.16. Cantina Dei Colli Ripani

LA CANTINA DEI COLLI RIPANI



La Cantina dei Colli Ripani is a wine cooperative of 330 local producers. Their mission is to create value for the community and its members. Sustainability is a key component in their vision: from a social point of view, this is achieved by offering to their contributing members value in line with the effort they make in the production. From the economic point of view, they offer a consistent remuneration that supports the local community; from the environmental perspective, they adopt eco-friendly practices relying on renewable energy (solar panels) and organic farming.

Our goal is to create value for the cooperative and its members



Target Users

- Traders/wholesalers
- Private companies
- Restaurants
- Final consumers



Market Channels

- Social media
- On-line shops
- Own sales outlets



Strengths

- Having a wide range of products to meet the needs of different types of customers
- Long-track experiences in the field

COLLABORATIONS

The organic production requires a strong collaboration and trust with their suppliers/members. The continuous dialogue established is particularly beneficial for all actors of the value chain towards the sustainable goals achievement.



Success Factors

- Collaboration with regional entities
- Collaboration with the universities



Obstacles to Overcome

- To convince suppliers to switch to organic production

We produce the taste and shape of a territory

DYNAMIC CAPABILITIES

The effect of the Covid-19 pandemic reflected in the market, dynamic required them to acquire the ability to quickly react to market changes. The last years were very useful for them to strengthen their key skill to first foreseen changes and consequently act consistently and timely to any changes in the market.






This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101016063

3.17. Algreen

ALGREEN



Algreen is a company founded in 2015 in Wageningen, in the Netherlands, working all over Europe. It helps microalgae producers in all aspects of their business: from production to downstream, regulation and certification. The company combines hands-on experience with scientific knowledge and skills to co-develop the algae production system tailored to any needs. Algreen strongly believes in the potential of algae to become a large-scale commodity, replacing many traditional products, thanks to their unique properties and their sustainable and scalable production methods.

Unlocking the power of microalgae



Target Users

- Agricultural companies (innovation seekers)
- Food industry
- Pharmaceutical industry
- Biotechnological industry



Market Channels

- Fairs and food exhibitions



Strengths

- Extensive knowledge and expertise in the sector (innovation seekers)
- Enhancing the value for the short-chain farmers within the chain and increasing their profit margins
- Producing high-value nutritional food products (healthy) locally
- High investment in R&D activities
- Being part of Microalgae Associations audit at European level (responsible for organic certification)

COLLABORATIONS

Consolidated R&D activities with i) producers ii) food industries, ii) public organisations, research institutes and universities that help in designing a new process from scratch, industrialising R&D lab scale processes, or working on the optimization of an established process. The company is a member of the COMBIO of AISAM, the working group of the Italian microalgae association on organic standards. Since 2021 Algreen is part of the Standard Committee of Algae and algae products.



Success Factors

- Build a consolidated network including all the actors of VCs and stakeholders (algae associations, research institution, public institution, university, food control audit). This collaboration enables to accelerate the organisational learning processes (with external stakeholders) and therefore improving market trends knowledge and capabilities useful to design long-term strategies



Obstacles to Overcome

- To fill the gap between the production and clients. Currently, the number of companies active in this business (companies who buy and sell spirulina without producing) is very limited
- To cope with the lack of medium-skilled employees. The company needs to train their employees (which requires extra time and costs) to make them operative in the plant
- To deal with no standardised process for algae production

We tried to take an active role to move forward

DYNAMIC CAPABILITIES

Considering the size of the company, Algreen spends quite a good deal of money in being part of the association following the latest innovation and market intel at different level (research, fair, commercial levels, on the web, in Algreen lab) to monitor who is launching a new product, new trends, changes in the regulation. The company tried to anticipate the trends, and to adjust the R&D.





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000152

3.18. Somogyi Helyi Termék Egyesület

Somogyi Helyi Termék Egyesület



Somogyi Helyi Termék Egyesület is an association, founded in 2018, operating in the Somogyi area in Hungary. The association aims at organising outreach opportunities for small food producers, primary producers and artisans living in the county area. The association gathers 14 small and local producers and craftsmen (honey, jam, syrup, pickles, chutney, cheese, jewellery) and 5 other supporting members (which include the Chamber of Agriculture, the National Development Agency and IT experts).

From lake Balaton to the southern border, together for a better future



Target Users

- Final consumers (residents and tourists)
- Restaurants (that dare to break with the mass-produced products and want to work with real, fresh ingredients)



Market Channels

- Ho-Re-Ca
- Tasting events



Strengths

- Alignment between producers and buyers (high-quality product at a fair price)

COLLABORATIONS

The association started from a grassroots movement, a single farmer started to engage producers and the university supported this movement by offering free venues, tools, and advertising. The organization facilitates the communication and decision-making among producers (about place and pricing policies) and the exchange between producers and customers (events' organisers and restaurants). Moreover, the association helps the producers in finding new market channels and customers.



Success Factors

- Collaboration with the universities in organising joint events, for promoting the product and ensuring producers' visibility



Obstacles to Overcome

- To deal with long bureaucratic processes
- To cope with limited availability of funding resources
- To overcome some limitations due the COVID-19 pandemic

DYNAMIC CAPABILITIES

The legislative environment, the consumer needs and new trends must always be monitored (through social media) even at their early stage. This allows them to promptly react to changes. As a plan for the future the organisation foresees a collaboration with reliable and authentic influencers.





Local products for local people




This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000882.

3.19. Liá Cultivators

LIÁ CULTIVATORS



Liá Cultivators is a family farm started in 1976 with 19 Koroneiki olive trees in Filiatra, Messinia and a large olive grove of 2500 trees. They used to produce extra virgin olive oil sold in bulk, but they decided to change their business and marketing plan, by combining traditional methods of cultivation with modern techniques with aim to respect the sustainability of the ecosystem and differentiated their products. They focus on the current trend in healthy and organic food, and they segment their consumers based on it. In addition, due to their long history of owning the family farm, their strategy to win the market is focusing on the authenticity of their product.

”

Roots that go back in time. Branches reaching out for the sun. The pure, fertile land. Our past and present on both sides of the silver-green leaf

”



Target Users

- Young generation from 25 to 45 years old who wants to change their culinary habits and looking for more healthy products



Market Channels

- Social network, with online and offline presence
- Sales in Greece, England, Switzerland, Benelux, Germany, Singapore, and USA



Strengths

- New airport and new roads that bring more tourists to the area is a key to develop their brand
- Tasting tours and awareness campaigns about their place of origin
- Cost of shipment decreases due to facilitation in transportation

COLLABORATIONS

Despite stabilised market rules for many years, Liá Cultivators re-organised the relationships with their suppliers and customers to educate them about the natural aspects of their products, and renegotiate based on new specifications and quality indicators (e.g., taste and colour). This organization initiates collaborations only if the other partner is a sustainable business. Environmental considerations, recycling, employees' condition like salary and insurance and fair trade processing are of importance for initiation of collaboration.



Success Factors

- To have complementary knowledge and skills with their partners
- To use written contracts
- To use standardized sustainability indicators



Obstacles to Overcome

- To face gender discrimination or other stereotypes
- To establish collaboration with universities

”

The design of our bottle is useful to preserve the quality of our product

”

DYNAMIC CAPABILITIES

SMEs might not always tolerate big changes and adapt to new conditions. However, the change identification is done by following mainstream forums and being engaged in collaboration with other sustainable businesses.







This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101019091

3.20. Dehesa de Autor

DEHESA DE AUTOR



Dehesa De Autor is an acorn producing company. Acorn is the fruit of the Quercus tree. It was traditionally used for human nutrition, but now it is mainly used to feed animals. Recently, new acorn-based products such as flour or drinks are being developed, as healthy and powerful alternatives for the human diet. The innovations concern both the transformation processes, which is patent protected, and the grafting techniques for resilient plant varieties to adapt to climate change. The acorn value chain has a potential for increasing socioeconomic and environmental sustainability.

The acorn value chain is able to empower farmers of southern regions



Target Users

- Farmers of southern regions, where acorns, holm oaks and cork oaks are key for rural economies



Market Channels

- Multiple traditional offline and online marketing channels



Strengths

- Healthy and community product

COLLABORATIONS

Partners' commitment to southern ecosystems preservation brought them together around different innovative solutions to increase socioeconomic and environmental sustainability. The connection started thanks to different dissemination activities of research results carried out by the Ministry of Ecological Transition (Research Centre El Serranillo), about biotech solutions for the adaptability of Quercus and their improved production of acorns, which inspired this business model. Each partner specializes in one stage of the value chain and makes decisions in its area of expertise.



Success Factors

- Having previously worked with partners
- Having complementary knowledge and skills
- Keeping face-to-face interaction with partners



Obstacles to Overcome

- To cope with lack of trust/ lack of credibility regarding the achievement of results by farmers
- To overcome the lack of productive continuity which has prevented a regular supply of acorn-based products to the customers
- To deal with public administrations, specifically bureaucracy and slowness

Our product is considered a "common good" and it is intended that no partner should be able to take individual possession of the product

DYNAMIC CAPABILITIES

The key is to "listen to the customers" and know how to "translate their needs". Most new business ideas come from the customers. Key actions are attendance, especially in academic and commercial forums, at conferences, training events, and trying to maintain direct contact with public R&D centres.






This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101019084

4. Discussion and Conclusion

This section presents a summary of the results obtained from the analysis of the BMs used in innovative and sustainable value chains (Table 5). We propose a cross-cutting discussion of the 20 BMs according to their users and market channels, strengths related to their unique value proposition; collaboration success factors and obstacles, and dynamics capabilities.

Main users and market channels

In this paragraph the main market channels in which the SOI is successfully implemented are described. We found that most of the companies sell their products in the domestic markets through their offline stores and online shops directly to the final consumers. These short food supply chains improve the market access of small-scale producers and allow producers to directly interact with consumers, thereby improving communication, collaboration (with the joint commitment to make food system more sustainable) and integration in the local communities (with less gender discrimination, corruption and a fair distribution of benefits). The absence of an intermediary organization gives farmers a better bargaining position and allows producers to capture a larger proportion of the margin. Another common trade channel for most of the companies is supplying hotels, restaurants, cafe & caterers (Ho.Re.Ca) (e.g., De Nieuwe Melkboer, Dehesa De Autor, Espigoladors, Kozárová Family Farm, Robin Food, and Somogyi). When it comes to the retail channel, the companies are more oriented to sell their product to small retailers as specialised shops or organic shops (i. e. Comunità Frizzante, Dehesa De Autor, Kozárová Family Farm and Szimbiozis) rather than big supermarkets. Only social enterprises are selling their products to supermarkets since they invested in social activities by offering socially responsible items. Only 5 out of 20 cases sell the products to the processing industry (food, cosmetics and biotechnological processing industries).

Strengths of the business model

The analysis reveals that most of the companies recognize the commitment to environmental protection and socially responsible behaviour as the main strengths of business model. This process, in most of the cases implies the reconfiguration of activities and processes within the small companies toward transforming and marketing of new products (i.e. Kozárová Family Farm, Liá Cultivators, De Nieuwe Melkboer; Terradiva). The commitment to sustainability issues for some companies is represented by a circular production (e.g., by using technologies that allow to recover waste water and energy and co-products from the processes, as in the case of Tenuta Colle degli Angeli, Grapoila, Algreen, Cantina dei Colli Ripani) and the zero waste approach (e.g., by using unsold F&V and production scrubs) as in the case of Comunità Frizzante, Espigoladors and Tenuta Colle degli Angeli. The shift towards sustainability issues emerges also in the commitment to selecting suppliers and processor that pursue a sustainable procurement (i.e. Grapoila, Liá Cultivators).

Some companies emphasize their strengths in building community-based activities along the value chains (i.e. Comunità Frizzante, Grapoila, Robin Food, Stadera, Szimbiozis) which enhance the social embeddedness in the local society and regional identity. This social embeddedness is reinforced by i) multiple interactions among the actors, ii) education and information exchange, iii) the construction of a common vision, iv) local employment (particularly in rural areas), and v) collaboration based on solidarity (as in the case of Robin Food, Comunità Frizzante and Szimbiozis).

Another strength identified in the analysed companies is the investment in R&D, which enhances knowledge and skills, enabling small companies to enter into partnerships or interact with clients to co-develop new sustainable solutions and SOI projects (e.g., Agricolt Brandoni, Grapoila, Agrokruh and Algreen). This is a surprising result considering that generally SMEs are limited in terms of financial resources, which in turn constrains their possibility to invest in R&D activities. The alignment between producers and buyers through vertical collaboration is another important asset identified by the companies (e.g., Somogy and Stadera). The collaboration between producers and suppliers is oriented

around reaching common objectives such as improving product quality, guaranteeing a fair price and fair profit distribution and sharing the risks. Therefore, it encourages a win-win contractual agreement that embraces sustainability dimensions, seeking a mutually acceptable outcome.

Collaboration process success factors

Composition of collaboration

The composition of the collaboration is detrimental for the success of collaboration for SOI. Within this category, the most shared success factor for the companies is the close/direct relationship with their business partners that is accomplished by i) a long-term working experience with the business partners, ii) a personal relationship with the business partners, and iii) regular face to face interactions (e.g., De Nieuwe Melkboer, Dehesa De Autor, Espigoladors, Grapoila, Okokiste, Para Ti, Szimbiozis, Tenuta Colle degli Angeli, Terradiva). The close collaboration enhances the trust-based relationships as well as the devolvement of sustainability goals. Moreover, the frequent communication reinforces the understanding of advantages and constraints, which allows VC actors to find common values and joint interests.

Another important factor for the companies is to have knowledge and skills that is multidisciplinary and complementary to their partners, to search for new SOI opportunities and generate new ideas (e.g., De Nieuwe Melkboer, Dehesa De Autor, Espigoladors, Kozarova, Lia Cultivator, Agrokrüh, and Stadera).

The common vision and the alignment of goals and expectations improve the collaboration for some companies (e.g., De Nieuwe Melkboer, Grapoila, Okokiste, Para Ti, Vicasol, Stadera). All the value chain actors monitor the alignment of individual strategies with the SOI strategies of their business partners, to optimize the performance of their collaboration.

Being culturally close and geographically near represent a success factor only for Espigoladors; in this case the close negotiation process with the administrative authorities allows to reach an agreement on the new activities which would have been otherwise forbidden.

Also the collaboration or the partnership with research institutions and universities were recognized as a critical factor (e.g., Cantina dei Colli Ripani, Somogyi and Algreen) to develop competences and acquire new knowledge and skills. By acquiring knowledge and transforming their routines according to the SOI principles, the companies improve their competitive advantages and their flexibility in responding to the changes in the business environment.

Managing collaboration

For managing the collaboration the use of written contracts and maintaining personal interaction are the most important success factors. Contracts can guarantee a minimum supply of products for buyers and access to the market for producers, thus taking away part of the risk related to applying new sustainable practices.

Collaboration process obstacles

The most common obstacle shared by the companies is the lack of financial resources (e.g., Somogyi, Vicasol, Stadera). Insufficient capital, a lack of internal funds and the difficulties in raising additional funds to scale up the SOI are particularly relevant for micro and small companies (e.g., Vicasol, Stadera) who constantly need to find new lines of credits considering that the revenues will be generated later while machinery needs to be purchased now.

Another common obstacle is finding suitable business partners (e.g., Comunità Frizzante, Grapoila, Kozarova, Para Ti, Szimbiozis) with whom to establish a trust-based relationship and share expectations and commitment to SOI actions.

Setting up agreements with large companies, retailers (supermarkets) and local administration entities is also considered an obstacle for some of the companies (De Nieuwe Melkboer, Dehesa De Autor, Robin Food) due to two reasons: i) the companies should invest more effort to build their reputation and being selected; ii) slow and hostile bureaucracy.

In the case of the social enterprise Robin Food (a non-profit organization) a misalignment of vision in the collaboration with for-profit organisations appeared to be an obstacle.

The last obstacle identified by the companies (e.g., Stadera, Szimbiozis) is related to the negative effects of the pandemic (COVID-19) on social distancing, given the fact that social interaction is at the core of the business models that are based on community participation.

Dynamic capabilities

For some SMEs the collaboration with external stakeholders (including R&D centers, universities, certification organizations) allows to accelerate the organizational learning processes and improve knowledge about market trends and capabilities to design SOI long-term strategies (e.g., Agricolt Brandoni, Cantina dei Colli Ripani, Dehesa de Autor, Grapoila, Kozárová Family Farm, Robin Food, Agrokrüh and Algreen). In the case of the cooperatives Vicasol and Stadera, the improvement of internal communication and the organization of workshops (as examples of knowledge transfer activities) are essential practices to transfer knowledge on sustainability directly to the members.

The ability to find collaboration opportunities with new partners linked to the new SOI ecosystems (e.g., universities, end-users, certification organizations) becomes a key capability especially for SMEs to develop and implement SOI projects and to start joint business activities. The multi-actor collaboration can improve the coordination in SOI transition and the public partners in such partnership can provide (temporary) financial support for the shift toward sustainable business.

Most of the companies are focused on the customers' needs and they constantly monitor the new trends (by participating to fairs and food expositions) as a main strategy to be ready for changes in the markets (e.g., Agricolt Brandoni, Dehesa de Autor, Kozárová Family Farm, Okokiste; Cantina dei Colli Ripani, Grapoila, Robin Food and Agrokrüh).

For several companies (e.g., Szimbiozis, Terradiva, Robin Food and Para Ti), smallness represents an advantage to be more flexible in adapting to changes in the market.

Table 5: Data collected on the business models

Name of the company	Main customers/users	Market channels	Strengths	Success factors	Obstacles	Dynamic capabilities
AGRICOLT BRANDONI	farmers and POs; processing industries;	Domestic market	Patent for micro-grafting product on Actinidia plants to protect them from a bacteria disease	Strengthening the relationships with suppliers; Customising the products	Finding the new communication strategy that would best illustrate the product peculiarities	Anticipating the market trends and monitoring constantly to be ready for the changes
LA CANTINA DEI COLLI RIPANI	Traders and wholesalers, HoReCa	Sales outlets; social media; online shop; HoReCa;	Wide range of products to meet the needs of different types of customers	The collaboration with the universities and with local authorities represents a good opportunity to growth	Convincing farmers to switch to organic production	Anticipate the market trends to be able to adapt to any changes
COMUNITA' FRIZZANTE	Bar; Restaurant; Small local stores (organic stores)	Final consumers; domestic market	Heathy products obtained by production scraps; creating a community around the products	Collaboration with a private institute (third parties)	Finding the proper customers and suppliers for this target products	The size of the companies and the SFC allow to easily and flexibly adapt to the main changes
DE NIEUWE MELKBOER	wholesalers; café and restaurants; private customers; final consumers	Online food sellers; online shop; HoReCa; speed delivery companies	Local soy based environmental friendly products (considering that the market for these target product is growing)	Long-term working experiences with partners; reputation of the partner; common vision; multidisciplinary and complementary and skills	Building the reputation to set up agreements with large companies (time and costs consuming)	Moving towards new plant-based protein processes to build a sustainability-oriented organizational approach
DEHESA DE AUTOR	Farmers; processing companies; bakeries; public administration	Iberian pork processing industry; HoReCa	Innovative value chain (multidimensional impacts); increase the productivity; empower farmers in uncertain future scenarios	Long-term working experience with their business partners and close relationship (face to face interaction); multidisciplinary and complementary profiles	Achieve agreement with customers (lack of trust); guaranteeing a production continuity; bureaucracy (with public administration);	Active focus on client needs; Innovation capabilities facilitated by a i) proactive collaboration with R&D center and commercial forum, ii) conferences attendance
ESPIGOLADORS	local consumers (looking for sustainable, local and fair-trade products)	sales outlets; big supermarkets; HoReCa; national market	Environmental friendly production, zero waste and socially responsible approach (hiring people in poverty) high quality of production	Close relationships with business partners (located in the same region and with the same culture); Multidisciplinary and complementary profiles	Reaching new sceptic farmers ; agreements with local administrators	Sustainability-oriented organizational approach; absorbing marketing and sustainable opportunities from their stakeholders network
GRAPOILA	Final consumers (for tasty and healthy products);	online shop; food and cosmetic	Zero waste approach; high-value and natural products; engagement in urban	Common vision; long-term business relationships based on trust and close interaction; written contracts; R&D	Yield variability; securing the quality of raw materials; volatility on crop market price	Absorbing technological and marketing capabilities through R&D activities; exploring new

Name of the company	Main customers/users	Market channels	Strengths	Success factors	Obstacles	Dynamic capabilities
	cosmetic and food companies	private label companies;	development and education program on sustainability	investments; strong leadership;	and fluctuations; identifying trustable partners;	trends by participating to fairs and food exposition
KOZÁROVÁ FAMILY FARM	Small retailers (small shops, bakeries); restaurants; final consumers	online shop; HoReCa; domestic markets	Nice packaging; friendly for environment; socially responsible; Implementing innovation pilot studies; own food processing plant	Complementary skills; roles well defined; quick adaptation; good reputation	Disagreements about land leasing; price fluctuation of the products; not well-functioning packaging line; unstable policies (for young farmers)	Active focus on client needs (enabled by the proximity with consumers); exploring new trends by participating in fairs and food exposition
LIÁ CULTIVATORS	Consumers (25 to 45 years, looking for healthy diets and lifestyles)	Solid social network; domestic and international markets	Strong connection with the territory and benefits from tourism; reduction in shipping costs (easy to export the product)	Multidisciplinary and complementary skills; use written contract; standardized sustainability indicators	Gender discrimination (entrepreneur women); Collaboration with research institute and universities (size of the company)	Sustainable and respect of working conditions as main criteria for the collaboration
OKOKISTE	Private enterprise; schools and kindergartens; final consumers	online shop	Commitment in environmental protection, social production, local production	common vision with the business partners; close relationship with their business partners	Standardization of the interfaces between members of the VC; guaranteeing a constant production; lack of skills and knowledge	Continuously development/ improvement of convinient apps for the ordering process
PARA TI	Final consumers	Online shop (platform and App)	Easy grocery shopping	Common vision and trust-based relationships among business partners; Informal agreement and network	Aligning the vision among the partners	Being flexible and responsive; Identifying opportunities; risk taking; Awareness of competitive advantage and weaknesses
ROBIN FOOD	Supermarkets; NGOs or social enterprises with similar mission; final consumers	Retailers (supermarkets); HoReCa	Building a food community (connecting all the stakeholders and consumers)	Support of parent organization; Strong network (other social enterprises); Good reputation (collaboration with supermarkets)	Agreements with supermarkets (legal aspects); misalignment between non-profit and for-profit world (difficulties in adapting to that changes)	Introducing new skills/expertise after starting a collaboration with new partners; Risk taking and learning by doing for adapting to new market conditions
Somogyi	Final consumers (local consumers, tourists); Restaurants	Direct sales; HoReCa;	Alignment between producers and buyers (high-quality product at a realistic price)	The close collaboration with the university that gives a strong contribution in promoting the association	Lack of financial resources; opportunities lost as a consequence of the pandemic	Monitoring the legislative environment and regulations as well as market trends

Name of the company	Main customers/users	Market channels	Strengths	Success factors	Obstacles	Dynamic capabilities
SZIMBIOZIS	Retailers (supermarkets, small shops); Horeca; final consumers	sales outlet; online shop; catering and events; food delivery;	high-quality products; improving the quality of life for people with disabilities; training activities on social farming; building a food community	Continuous exchange of ideas and knowledge with VC actors; direct contact with consumers; supportive local authorities in strategies for the inclusion of people with special needs	Lack of trust among actors (that makes the collaboration very difficult); Pandemic consequences (opportunities lost)	The diversification of the business activities and the simple structure allows to be more flexible to market changes.
TENUTA COLLE degli ANGELI	Final consumers who care about healthy and safe product	Bakery; pasta maker	healthy product and suitable for everyone; circular production and zero waste approach	Exchanging ideas with suppliers and customers to try to create a linear and long-lasting product.	Technical difficulties (in reaching the final product)	Moving towards organic and healthy food to build a sustainability-oriented organizational approach
TERRADIVA	Horeca; final consumers;	sales outlet, online shop; domestic	Commitment in environmental protection, healthy and local production	Long-term business relationships based on trust and close interaction;	Finding the right supplier able to design a packaging	Flexibility for quick changes allowed by the size of the company (family business); Strong focus on clients needs
VICASOL	member of the cooperative; local consumers	Traditional retailers; online shop	short food chain based on proximity concept	Solid network of local suppliers; common goals and vision among members (who are also customers)	Finding stable financing lines; communication between members	Communication with the members to gather from them information on markets trends
AGROKRUH	Young nature-oriented smallholders; landowners of area with sandy soils	early adopters (agricultural secondary schools and regional authorities)	High expertise; environmentally friendly and socially responsible approach; innovative circular technology	Presence of multidisciplinary and complementary skills; Long-term business relationships with external stakeholders;	technology certification process (not completed yet) ; convincing sceptic farmers ; access to funds from investors (seeking short-term results) ; unstable political environment;	Innovative capabilities by offering agri-tech solutions; Monitoring of market trends; proactive collaboration with agricultural networks for idea and knowledge exchange
ALGREEN	Agricultural companies (innovation seekers); food/pharmaceutical/biotechnological industries;	online shop; Fairs; summits; conferences; domestic (30%) and international (70%) markets	producing high-value(healthy) and local (short chain) food products ; high investment in R&D activities ; environmentally friendly (circular technology) and socially responsible approach	Being part of Microalgae Associations audit at European level; solid community (producers, industries, institutions, research centers, stakeholders) around microalgae production	gap between the production and clients; lack of medium-skilled employees; no standardized process for algae production;	The collaboration with external stakeholder allows to accelerate the organizational learning processes and improving market trends knowledge and capabilities to design long-term strategies.

Name of the company	Main customers/users	Market channels	Strengths	Success factors	Obstacles	Dynamic capabilities
STADERA	Final consumers and members of the cooperative	sale outlets; domestic market	local and organic product with a realistic price; affordable access to food with reduced mark-up on suppliers price; community of motivated consumers;	A good governance within the cooperative i) to constantly change ideas and knowledge ii) to build on the different competencies/motivations; iii) to create a community culture	Pandemic consequences (missing opportunities of social interaction); limited access to funding and lack of financial resources	Animating the communication with the members to gather/absorb from them information on markets trends (transferable directly to the cooperative)

References

- Abdelkafi, N., & Täuscher, K. (2016). Business models for sustainability from a system dynamics perspective. *Organization & Environment*, 29(1), 74-96.
- Amit, R., & Zott, C. (2001). Value creation in e-business. *Strategic management journal*, 22(6-7), 493-520.
- Bocken, N. M. P., Rana, P., & Short, S. W. (2015). Value mapping for sustainable business thinking. *Journal of Industrial and Production Engineering*, 32(1), 67-81.
- Bocken, N. M., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. *Journal of cleaner production*, 65, 42-56.
- Casadesus-Masanell, R., & Ricart, J. E. (2010). From strategy to business models and onto tactics. *Long range planning*, 43(2-3), 195-215.
- Chesbrough, H., & Rosenbloom, R. S. (2002). The role of the business model in capturing value from innovation: evidence from Xerox Corporation's technology spin-off companies. *Industrial and corporate change*, 11(3), 529-555.
- de Pádua Pieroni, M., Pigosso, D. C., & McAlloone, T. C. (2018). Sustainable qualifying criteria for designing circular business models. *Procedia Cirp*, 69, 799-804.
- Franceschelli, M. V., Santoro, G., & Candelo, E. (2018). Business model innovation for sustainability: a food start-up case study. *British Food Journal*.
- Geissdoerfer, M., Bocken, N. M., & Hultink, E. J. (2016). Design thinking to enhance the sustainable business modelling process—A workshop based on a value mapping process. *Journal of Cleaner Production*, 135, 1218-1232.
- Geissdoerfer, M., Vladimirova, D., & Evans, S. (2018). Sustainable business model innovation: A review. *Journal of cleaner production*, 198, 401-416.
- Goni, F. A., Gholamzadeh Chofreh, A., Estaki Orakani, Z., Klemeš, J. J., Davoudi, M., & Mardani, A. (2021). Sustainable business model: A review and framework development. *Clean Technologies and Environmental Policy*, 23(3), 889-897.
- Iheanachor, N., David-West, Y., & Umukoro, I. O. (2021). Business model innovation at the bottom of the pyramid—A case of mobile money agents. *Journal of Business Research*, 127, 96-107.
- Magretta, J. (2002). Why business models matter.
- Schaltegger, S., Hansen, E. G., & Lüdeke-Freund, F. (2016). Business models for sustainability: Origins, present research, and future avenues. *Organization & Environment*, 29(1), 3-10.
- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic management journal*, 28(13), 1319-1350.
- Teece, D. J. (2010). Business models, business strategy and innovation. *Long range planning*, 43(2-3), 172-194.
- Van Tulder, R., Seitanidi, M., Crane, A., & Brammer, S. (2016). Enhancing the impact of cross-sector partnerships. *Journal of Business Ethics*, 135(1), 1-17.

Annexes

Annex 1: CO-FRESH Task 1.2. Survey sent to the 118 value chains

CO-FRESH Survey: Sustainable Innovation and Collaboration in Agrifood Value Chains

02 July 2021

Introduction

Information about the study

CO-FRESH is an European-wide innovation action project with the aim to promote more sustainable and efficient agrifood value chains through concrete actions and approaches (<https://co-fresh.eu/>).

One action of the CO-FRESH project consists in collecting data on more than 100 innovative and sustainable agrifood value chains in Europe, to understand the **factors that support successful collaboration for sustainable innovation**.

You are invited to take part in the current survey because **your organisation** has been identified as a **leader or participant in a sustainable innovation** process in an agrifood value chain.

Before starting the questionnaire, please read the information below.

Expected time to invest:

Your participation in this survey may require approximatively 30 minutes.

You may cancel your participation at any time without specifying your reasons and without any disadvantages.

Type of data to be collected with the survey:

- Your personal data (Name, Surname, Email, Affiliation and Position in your organization)
- General information about your organization
- The opinions provided about the sustainable innovation process and the collaboration involved in your organization and in your value chain

Data treatment and dissemination activities:

The collected data will be stored temporary and only used for the study by Wageningen University. The data will be deleted at the end of the project (October 2024). **All data will be anonymized prior to any publication**, unless you indicate that you want the name of your organisation mentioned in the public report.

The results of the study will be presented in a public report available on the CO-FRESH website (<https://co-fresh.eu/>). This document will consist of an inventory of 100+ innovative and sustainable agrifood value chains and their characteristics. This inventory will also be used to identify a Portfolio of Innovative Sustainable Business Models in the next step of the project. Additional dissemination activities include scientific conferences and journal publications.

Contact: For any questions regarding this activity, please contact Celia Cholez (Wageningen University) at celia.cholez@wur.nl

Your consent:

I, the respondent of this survey, confirm by ticking the boxes below that:

<input type="checkbox"/> yes <input type="checkbox"/> no	I have read and understood the study information
<input type="checkbox"/> yes <input type="checkbox"/> no	I agree to participate voluntarily to this on-line survey as a representant of my organisation
<input type="checkbox"/> yes <input type="checkbox"/> no	I agree that the data I provide can be used for the study as described above
<input type="checkbox"/> yes <input type="checkbox"/> no	I am aware that all the collected data will be anonymized prior to any publication
<input type="checkbox"/> yes <input type="checkbox"/> no	I would like that the name of my organization appears in the Public Report
<input type="checkbox"/> yes <input type="checkbox"/> no	I would like to be informed about the results of this study

Please complete **all** questions, unless otherwise instructed.

1. Information about the respondent

Name: _____
 Job title: _____
 Organisation: _____
 Phone: _____
 E-mail: _____

2. General information about your organisation

Name _____
 Address _____
 Postal code _____
 Main activity _____

Type of organisation (*Please tick the correct box*):

A. Inputs supplier (for instance technology provider, seed company)	<input type="checkbox"/>
B. Farmer or farmers organisation	<input type="checkbox"/>
C. Processing company	<input type="checkbox"/>
D. Trader or wholesaler	<input type="checkbox"/>
E. Retailer (for instance supermarket, grocery store)	<input type="checkbox"/>
F. Consumer	<input type="checkbox"/>
G. Public organisation, research institute or university	<input type="checkbox"/>
H. Private service provider (for instance consultant, innovation broker)	<input type="checkbox"/>
I. Non-Governmental Organisation or Civil Society Organisation	<input type="checkbox"/>

2.1. Does your organisation sell its fruits and vegetables products in the following geographical areas ?

	Yes	No
A. Local / regional	<input type="checkbox"/>	<input type="checkbox"/>
B. National	<input type="checkbox"/>	<input type="checkbox"/>
C. Other European countries	<input type="checkbox"/>	<input type="checkbox"/>
D. Non-European countries	<input type="checkbox"/>	<input type="checkbox"/>

2.2. Which of these geographic areas is your largest market in terms of turnover ?

A. Local / regional	<input type="checkbox"/>
B. National	<input type="checkbox"/>
C. Other European countries	<input type="checkbox"/>

D. Non-European countries

3. Sustainable innovation and collaboration in the value chain

The **sustainable innovation** refers to a **collaborative process** of change, aimed at improving economic, environmental or social aspects in your value chain. It can consist of a bundling of different types of innovations, implemented at different stages of the value chain.

Collaboration refers to joint activities that helped the development and implementation of the sustainable innovation in the value chain, such as knowledge-sharing, joint-planning of business activities, joint-investment.

3.1. Did the sustainable innovation process, in your value chain, consist of one or more of these particular innovations ?

	Yes, in my organisation	Yes, in other organisations	No
New crop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New farming practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New food product or process (for instance a novel or improved recipe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New packaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New way of distributing the product to the final consumer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New way of marketing the product (for instance using certification)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.2. During this process, did your organisation also innovate in:

	Yes	No
Re-organising relations with suppliers	<input type="checkbox"/>	<input type="checkbox"/>
Re-organising relations with customers	<input type="checkbox"/>	<input type="checkbox"/>
Re-organising relations with other stakeholders	<input type="checkbox"/>	<input type="checkbox"/>
Re-organising internal business practices	<input type="checkbox"/>	<input type="checkbox"/>

3.3. For implementing this innovation process in your value chain, with which partners did your organisation collaborate:

	Yes	No
A. Inputs supplier (for instance technology provider, seed company)	<input type="checkbox"/>	<input type="checkbox"/>
B. Farmers or farmers organisation	<input type="checkbox"/>	<input type="checkbox"/>
C. Processing company	<input type="checkbox"/>	<input type="checkbox"/>
D. Trader or wholesaler	<input type="checkbox"/>	<input type="checkbox"/>

- E. Retailer (for instance supermarket, grocery store)
- F. Consumers
- G. Public research institute, university or government agency
- H. Private service provider (for instance consultant, innovation broker)
- I. Non-Governmental Organisation or Civil Society Organisation

3.4. For implementing this innovation process, what activities were carried out with your collaboration partner(s):

Tick all that apply

	Exchange of ideas and knowledge	Joint R&D activities	Joint-planning about production or marketing	Joint-investment or pooling of resources* for production or marketing	Non Applicable
A. Inputs supplier (for instance technology provider, seed company)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Farmers or farmer organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Processing company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Trader or wholesaler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Retailer (for instance supermarket, grocery store)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Consumers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Public organisations, research institutes or university	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Private service provider (for instance consultant, innovation broker)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Non-Governmental Organisation or Civil Society Organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Resources refers to employees AND to equipment, buildings, machinery, etc.

3.5. Importance of the different type of collaboration for the innovation process

How important have the following factors been for implementing the innovation?

(Tick all that apply)

	Not at all important	Slightly important	Moderately Important	Important	Very important
To collaborate with an inputs supplier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To collaborate with farmers or a farmer organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To collaborate with a processing company	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To collaborate with a trader or wholesaler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To collaborate with a retailer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To collaborate with consumers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To collaborate with a public organisation, research institute or university	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To collaborate with a private service provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To collaborate with a Non-Governmental Organisation or Civil Society Organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Success factors of collaboration for sustainable innovation

4.1. Composition of the collaboration

How important have the following factors been for the success of the collaboration?

	Not at all important	Slightly important	Moderately Important	Important	Very important
To have previously worked with my partner(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To know the reputation of my partner(s) before setting up the collaboration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To have strong personal relationship with my partner(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To be located in the same region than my partner(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To be culturally close to my partner(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To have common expectations about the innovation outputs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To have complementary knowledge and skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.2. Management of the collaboration

How important have the following factors been for the success of the collaboration?

	Not at all important	Slightly important	Moderately Important	Important	Very important
To use a written contract	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To maintain frequent face-to-face interactions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To have a common data infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To use standardised sustainability indicators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.3. Internal factors for the collaboration

How important have these internal factors been for the success of the collaboration?

	Not at all important	Slightly important	Moderately Important	Important	Very important
A sustainability culture in my organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The existence of a strong leader	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The expertise of the procurement team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The expertise of the R&D team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The expertise of the marketing team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The R&D expenditure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4.4. Public support for the collaboration

How important have the following factors been for the success of the collaboration?

	Not at all important	Slightly important	Moderately Important	Important	Very important
Public policies that support collective action (for instance in Operational Groups or in Interbranch Organisations)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial support from the European Union, or from national or regional programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public support in the form of technical assistance, applied research, training programs or educational campaigns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Participation in public quality schemes (for instance geographical indications)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other public regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Objectives, drivers and benefits of the sustainable innovation process

5.1. What was the most important objective of the innovation process for your organisation?

Rank from the most important (1) to the least important (3):

	Rank
Economic improvement	
Social improvement	
Environmental improvement	

5.2. Drivers of the sustainable innovation

How important were the following factors in driving your organisation’s decisions to implement the innovation process?

	Not at all important	Slightly important	Moderately Important	Important	Very important
To comply with public regulations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To meet requirements for public procurement contracts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To respond to market demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To reduce costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To commit to social responsibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.3. Environmental benefits of the sustainable innovation

How impactful was the sustainable innovation on the following benefits?

	No impact	Minor impact	Moderate impact	Strong impact	Extreme impact
Reduction of fossil energy use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduction of air, water, or soil pollution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improvement of biodiversity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduction of food waste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.4. Social benefits of the sustainable innovation

How impactful was the sustainable innovation on the following benefits?

	No impact	Minor impact	Moderate impact	Strong impact	Extreme impact
Rural territories development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved working conditions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Healthy diets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Linking farmers and consumers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inclusion of disabled workers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Food access (aids) for poor people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5.5. Economic benefits of the innovation

How impactful was the sustainable innovation on the following benefits?

	No impact	Minor impact	Moderate impact	Strong impact	Extreme impact
Creating and capturing added-value by my organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reducing production, logistic or transaction costs in my organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enhancing farmers' income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reducing the cost of food for consumers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improving the economic performance of the value chain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reducing the inequality of power in the value chain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Basic economic information about your organisation

6.1. What was your organisation’s total turnover in 2020 ? Turnover is the sales of goods and services

--	--	--	--	--	--	--	--	--	--

 EURO

6.2. What was your organisation’s average number of employees in 2020?

--	--	--	--	--	--	--	--	--	--

6.3. In case of a cooperative or association: what was your organisation’s average number of members in 2020?

--	--	--	--	--	--	--	--	--	--

Annex 2: Business Model Template used for Task 1.4 data collection

Business Model NAME:

I. Value Creation and Capture Description

This section describes how the focal firm creates and captures value.

<i>BM Element</i>	Description	Where to look for it? (interviewee starting point)	Does it need elaboration in the interview? If yes how?
<i>Unique value proposition</i>	What does the solution ¹ do better, what are the benefits, what does the user/customer want, what distinguishes it from the competition/current solutions?	N.A. UVP is different from benefits of SOI	YES, with direct interview question (refer to interview guide → Q1)
<i>Description value proposition</i>	Describe in few words, what is the <u>solution</u> your company offers, to which problem	VC templates	No
<i>Target Market</i>	Describe the market in which the <u>SOI product/service</u> will be used and can "compete"	N.A. We may have some basic information about the target market in the VC templates, in the table describing the consumption stage of the VC, But no information on the competitive environment	YES, with direct interview question (refer to interview guide → Q2)
<i>Farmers' role</i>	Describe the position of farmers within your VP strategy (before and after <u>SOI implementation</u>)	N.A. We have information about the position of farmers within the SOI strategy In T1.2., we know if farmers are involved or not in the collaboration for SOI (See D1.2. Table 5 And T1.2 Survey results Questions 3.3. and 3.5) In the T1.2. survey, questions 5.4. and 5.5. informs about	YES, please refer to interview guide Q3

¹ A solution is beyond SOI product/service, a solution talks about all the aspects that increases companies competitive advantage in the market.

		the impact of the innovation on working conditions, on farmer income and on power inequality in the VC ²	
<i>Market Channels</i>	Describe how the SOI did reach early adaptors	N.A.	YES, with direct interview question (refer to interview guide → Q2)
<i>Revenue</i>	This is can be extracted from:	VC survey: 6.1	Suggestion: exclude
<i>Main drivers and Barriers</i>	Describe the main drivers and barriers in the SOI process	Drivers→ VC survey: 5.2. Barriers N.A.	YES, with direct interview question (refer to interview guide → Q4)
<i>Activities</i>	Describe the main activities and processes characterizing your <u>SOI business</u> .	VC Template and VC Survey 3.4	YES, the focus of 3.4 is on activities with other partners, we do not have information on main activities by focal firm. (refer to interview guide → Q5)
<i>Resources</i>	Describe the types of tangible and intangible resources that were essential to make the SOI a success.	N.A. In T1.2 survey section 4, we have information about the relative importance of success factors for SOI (such as experience, reputation, spatial proximity, complementarity of kn and skills, R&D expenditure, etc.) .They are not classified as tangible vs intangible ressources , but it can partially inform that	YES, (refer to interview guide → Q6)
<i>Other important aspects of the VP strategy</i>	<ul style="list-style-type: none"> • How do you make sure your value creation strategy benefits all stakeholders? Q7 • Elaboration on FAIR value proposition. 		

II. Collaboration dynamics and Business Model

This section describes how the focal firm manages the collaboration process and accommodates collaboration dynamics in their BM.

² The benefits of SOI for farmers is different from how the VP strategy enforces farmers position in the value chain. Whether they are beneficiaries etc...

<i>Collaboration</i>	Where to look for it? (interviewee starting point)	Does it need elaboration in the interview? If yes, how?
<i>Re-organizing relations</i>	<p>We have information on whether the organization also innovates in re-organizing relation ...</p> <p>Section 3, Subsection 3.2 look for:</p> <p>“re-organizing relations with ----”</p>	<p>YES</p> <ul style="list-style-type: none"> You have mentioned in the Survey that your organization also innovate in “re-organizing relations with ----” Please describe why did your company re-organize relations with---” and how. <p><i>Repeat this for every relation that is mentioned in the survey.</i></p>
<i>Collaboration Process I</i>	<p>We have information that the organization carried out [activities] with [partner]</p> <p>Section 3, subsection 3.4.look for:</p> <ul style="list-style-type: none"> - What type of activities with which partner. - Pre-Select the most 3 important collaborations based on section 3.5 	<p>YES</p> <ul style="list-style-type: none"> I can see that your organization carried out [activities] with [partner], (this will be asked for each collaboration) Could you describe the collaboration process? From initiation to agreement? How did you start... ? Why did you start ...? <p><i>Repeat this for every collaboration that is mentioned in the survey.</i></p>
<i>Collaboration process success factors</i>	<p>Based on the collaborations you have talked about in the previous section:</p> <p>Section 4, subsections 4.1 and 4.2: look for:</p>	No
<i>Collaboration process obstacles</i>	N.A.	<p>YES.</p> <p>What were the obstacles you faced for setting up this collaboration? Could you overcome them and how?</p>
<i>Collaboration and BM</i>	N.A.	<ul style="list-style-type: none"> - Did you align your business decisions with this partner? How did you come to an agreement? Could you tell me more about that? - How were these agreements translated into your BM? - How did these agreements influence your value proposition strategy? <p><i>Repeat these for each collaboration when we talk about collaboration process.</i></p>

III. Dynamic capabilities:

According to you, if there is a change in the market, how can you identify opportunities? How can you address these changes and adopt to new conditions?

Annex 3: Generic Interview Guide

Start with the description of SOI by interviewee.

I. Business Model

- 1) Why should these customers/users buy this new sustainable product/service? (Could you explain the main strategies to win the competition?)
- 2) Who are the customers/users of the new sustainable product/service that will be offered? Can you please describe how the SOI did reach early adaptors?
- 3) Can you please Describe the position of farmers within your VP strategy?
- 4) Could you describe the main difficulties encountered in adoption of the SOI? How did you overcome these difficulties?
- 5) Could you describe the main activities/ processes characterizing your SO business? (This question is aimed at understanding the main sustainable activities/processes that entrepreneur follows to produce/deliver to the customers)
- 6) Which kind of tangible and intangible resources do you need to deliver this new sustainable product/services for the customers?
- 7) How do you make sure your value creation strategy benefits all stakeholders?

II. Collaboration and Business Model

- 1) You have mentioned in the Survey that your organization also innovate in “re-organizing relations with ----” Please describe why did your company re-organize relations with----” and how.
 - *Repeat this for every relation that is mentioned in the survey*
- 2) I can see that your organization carried out [activities] with [partner], (this will be asked for each collaboration). Could you describe the collaboration process? From initiation to agreement?
 - *Repeat this for every collaboration that is mentioned in the survey*
- 3) What were the obstacles you faced for setting up this collaboration? Could you overcome them and how?
- 4) Did you align your business decisions with this partner? How did you come to an agreement? Could you tell me more about that? How were these agreements translated into your BM? How did these agreements influence your value proposition strategy?
 - *Repeat these for each collaboration when we talk about collaboration process.*

III. Business Model and Dynamic Capabilities

- 1) According to you, if there is a change in the market, how can you identify opportunities? How can you address these changes and adopt to new conditions?