

Mini kiwi fruit plantation

Campden BRI Hungary

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Dissemination Level		
PU	Public	
PP	Restricted to other programme participants	
RE	Restricted to a group specified by the consortium	
CO	Confidential, only for members of the consortium	

1. Title of the case description

Mini kiwi fruit plantation

2. Indicate your role in the Smart Food Supply Chain (the role of the case study):

individual member of the chain:
chain operator:
network operator:
association:
technical, scientific, or management expert:
advisor:
policy maker:
other:

3. Indicate the region (if applicable): Hungary, Dabas

4. WP2 Cross-reference table

Please indicate with an X in the relevant box of the matrix for which needs and the steps / functions of the supply chain the described innovative solution is applicable

		Individual steps of the SFSC							Short food supply chain as whole						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Needs of the consumers (citizens)	food safety														
	food quality		X					X		X					
	trust														
	ethical aspects														
	accessibility														
Needs of the chain actors	fair price		X												
	increased negotiating power														
	shared use of available resources														
	product development support														
	access to markets and consumers		X			x									
	access to infrastructure														

1: Farming

2: Primary production

3: Transport

4: Processing and packaging

5: Storage

6: Logistics

7: Sale

8: Product integrity, authenticity, transparency

9: Marketing concepts

10: Food chain management and networking for enhancing cooperation among chain actors

11: Business modelling

12: Policy environment

13: Legal requirements

14: Labelling

5. Short description of the innovative solution

- **Describe the specific need or problem being addressed by the case and please explain what is the novelty of this innovative solution**

This type of fruit was unknown in the consumers layer in Hungary, but consumers are already enjoying the exotic tastes and the healthy eating of the little kiwi berries around the world. They have similar taste as fuzzy kiwis but are hairless and sweeter.

- **Describe the enabling function(s) and the practical benefit(s)-(e.g. for which types of problems and opportunities is used and can it be used, and how)**

It's a new product on the Hungarian market, otherwise it's practical to grow them because of their nutritional benefits and their special, exotic feature. Limited availability of product choice.

- **Describe the method/procedure/technology/solution implemented. (Please explain, whether the innovative method is a product / service / process / marketing or organisational / management innovation) After completing the description, please indicate, whether this innovation is a technological or non-technological one.**

Mini kiwis are easy to grow, because they do not have natural pests, they don't need to have to use pesticides, the plantation can run as an organic one. There are **two types of the plant-system** which are used by the mini-kiwi plantation. The **T-system**, where the kiwi vine fruiting canes are tied to wires on top of the cross arm of the posts (invented in New Zealand) and the other one, the **pergola system** the wires not only extend down the row, but also are used as „cross arms” running perpendicular to the vine rows (invented in Russia). Now the T-bar system seems to be the best for the mini kiwis.

technological X

non-technological

- **Describe the business, which implemented the innovated solution (size, country, region, location, type of food)**

A special mini kiwi fruit (*Actinidia arguta*) plantation was created by Zoltán Lakos in Dabas. This type of kiwi fruits is new on the Hungarian market but consumers are already enjoying them around the world due to having the similar taste as fuzzy kiwis but are hairless and sweeter. The main driver behind their introduction is increased demand for exotic tastes coupled with a unique and healthy eating experience. These little kiwiberries are containing over 20 essential nutrients and a wide range of vitamins. It is one of the richest sources of vitamin C with up to 430 mg/100 g fresh weight (FW) and is considered the richest dietary source of myo-inositol (up to 982 mg/100 g FW).

- **Describe the distribution channels of the product(s)**
 - This fruit is brand-new on the Hungarian market and they would like to introduce mini kiwi to the consumers first through the short supply chain. Considering the economic and efficiency aspects they believe that the best way to sell mini kiwi fruit is through the short supply chain.
 - They try to distribute to farmer's markets, organic markets and other short supply chains, e.g. *Mr Fruit*, where the chain between the consumers and the producers is already established.
 - They try to sell my fruits through a website in the future if the consumers are open to it.

- **Describe what makes the innovation work.**

New product and production method on the market

- **Describe the specific prerequisites for the business related to the implementation of the method and/or related to the location, method, procedure, solution**
 - a: **List the relevant necessary resources (including the estimated cost) for the specific innovation.**
Please list the relevant ones only (list is annexed)
 - materials (for fruit production, packaging materials)
 - human:knowledge & skills
 - IT infrastructure
 - financial
 - b: **List the relevant necessary capabilities for the specific innovation.**
Please list the relevant ones only (list is annexed)

6. Describe the results, achievements and typical failures

Typical failure: when the producers ensure do not the steady-quality products and how the trust of the consumers can be built up.

7. Summarize what makes the case to a good practice for the members of the SFSCs (e.g. lessons learned)

New , high quality product.

The producer motto is “If your hobby is your job, you never have to work.”

8. Aspects, methods for transfer of methods for other SFSC members

One of the hidden needs of the producer is to make the products available for the consumers and find the proper logistic solutions.

9. Recommendations for members of other SFSCs for further applications

The problems of the producer are the trust of consumer and the access to market and consumers.

One of the hidden needs of this is to make the products available to consumers and find the proper logistic solutions.

10. More information is available at (web), if it is relevant

<https://www.facebook.com/pages/category/Local-Business/Minikivihu-100387311345054/>

<https://kertlap.hu/ontermekeny-kopasz-kivi/>

Annex

1. Checklist for necessary resources (tangible and non-tangible):

- materials (access to: raw materials/ ingredients - including volume, land – including size, packaging materials)
- human: labour force: size, knowledge & skills (production, technical, marketing, managerial, ICT, financial, etc.)
- technology: patents, know-how, trademarks, copyrights, trade secrets
- infrastructure, equipment, facilities, - size, minimum volume of production/sales, IT infrastructure
- information, reputation, brand, trust
- financial*

*: estimated cost:

0 - 10 000 Eur
10 001 - 50 000 Eur
50 001 - 100 000 Eur
100 001 - 300 000 Eur
300 001 – 1 000 000 Eur
1 000 000 Eur above –

- other specific necessary resources for the application of the specific innovation

2. Checklist for the necessary capabilities

- **food safety:**
 - basic skills to comply with the EU food safety regulations
 - ability to understand what makes the product safe (the key controls, which ensure the safety of the product – biological, chemical and physical hazards, providing the safety shelf life of perishable products)
 - food safety culture (motivation, responsibility for food safety) and basic skills for the implementation of HACCP

- **food quality:**
 - ability to define the target segments of consumers for SFSCs
 - ability to define the product characteristics which are (tacit) basic requirements for the target segment(s) of consumers;
 - ability to define which product attributes/levels and augmented services represent an added value for the target segments of consumers;
 - food quality culture (motivation, responsibility for food quality);
 - production experiences which help to provide the expected quality reliably, uniformly;
 - ability to provide distinguishable quality which meets the needs of the targeted consumer segment;
 - meeting (local) legal requirements, application of the labelling rules;
 - ability to access the consumer willingness to pay for specific products of SFSCs.

- **trust:**
 - ability to ensure product integrity, authenticity and transparent information for the consumers (including systems, tools);
 - ability to access external trust enhancers (third party certification, internal certification system, participatory guarantee systems);
 - application of the labelling rules and branding (mandatory and voluntary);
 - ability to meet third party certification requirements

- **ethical aspects**
 - ability to understand consumer needs for ethical behaviour related to the specific product(s) of the SFSCs;
 - culture for ethical food production and supply;
 - ability to implement necessary measures to ensure ethical food production and supply;
 - ability to access the consumer willingness to pay for products meeting ethical aspects

- **accessibility to consumers:**
 - ability to organize logistics efficiently and to exploit innovative solutions and distribution channels;
 - efficient, innovative sales methods;

- ability to develop and implement new business models for ensuring access of consumers to products and augmented services;
- **fair price:**
 - collecting marketing information;
 - ability to enhance and maintain cooperation among chain actors including the combined use of available complementary resources, capabilities, competences of SFSCs actors, networking, understanding the principles of food value chain management;
 - ability to define, develop or maintain unique quality of products and augmented services;
 - ability to develop and implement new business models;
 - ability to access the consumer willingness to pay for fair price
- **increased negotiation power:**
 - collecting marketing information;
 - ability to enhance and maintain cooperation among chain actors including the combined use of available complementary resources, capabilities, competences of SFSCs actors, networking, understanding the principles of food value chain management, cooperation culture;
 - ability to define, develop or maintain unique quality of products and augmented services;
 - ability to develop and implement new business models;
- **shared use of available resources:**
 - ability to enhance and maintain cooperation among chain actors including the shared and combined use of available complementary resources, capabilities, competences of SFSCs actors, networking, understanding the principles of food value chain management, cooperation culture;
 - the level of value chain management culture;
 - ability to access the consumer willingness to pay for food with reduced environmental impacts

- **input for R+D:**
 - ability to monitor, research, evaluate, and understand the needs and wants of customers and consumers;
 - ability to develop new products, processes, packaging, preservation techniques, systems and access to new markets, including in other categories;
 - access to innovative technologies; distribution and marketing solutions and methods. management systems;
 - access to local input for R+D covered by other aspects

- **access to markets: and market success**
 - effective promotion, customer service, efficient and innovative sales methods;
 - ability to understand consumer's needs;
 - ability to organise logistics efficiently and to exploit innovative solutions and distribution channels,
 - unique value propositions;
 - ability to develop and implement new business models for ensuring access of consumers to products and augmented services, develop the market accessibility for the suppliers.
 - stock control;
 - ability to access to required raw materials within a restricted geographical area

- **access to infrastructure:**
 - ability to use existing own infrastructure in a focused way to serve consumer needs or to combine it with complementary infrastructures of other SFSC actors, cooperation culture;

- **management:**
 - to implement management systems for vision, planning, implementing), coordinating, controlling, monitoring, continuously;
 - improving; ability to motivate, authorize staff;

- **production, processing:**
 - management system, production experience, specific controlling, monitoring, continuously;
 - willingness to consider and ability to evaluate the adoption of TECI and NTI in the current production processes;
 - any additional specific resources necessary for the application of the specific innovation.