



Strategies for Success in Short Food Supply Chains: Case Studies from Poland, Czechia, and Slovakia

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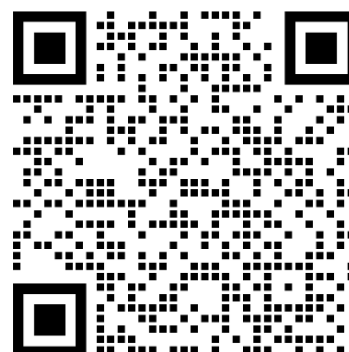
Comments

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The Food Chain project: Family Farms in Short Food Supply Chains: Transfer of experience from Czechia, Slovakia and Poland

This project aims to cultivate a resilient family farming ecosystem by bridging Central Europe, the Balkans, and Georgia through a strategic exchange of specialised knowledge and agricultural expertise. Experts from the Czech Republic, Poland, and Slovakia are collaborating to identify and document best practices within short food supply chains, which will then be shared with farmers and key stakeholders in Bosnia and Herzegovina and Georgia. By focusing on the core pillars of entrepreneurship, innovation, and research, the initiative seeks to tackle pressing economic challenges and improve the business environment for farmers to ensure sustainable agricultural growth across all participating nations.

For more comprehensive details and to explore all project resources, please visit the official webpage - <https://1url.cz/oeiFH>



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Foreword

At a global level, the number of farms is declining, with existing studies (e.g., Mehrabi, 2023) predicting a continuation of the concentration trend. Smaller farms, in particular, will continue to be displaced and replaced by a significantly reduced number of large-scale agricultural producers. This decline of farms is determined by the complex influence of technological, economic, social, demographic, and political-regulatory factors (Cochrane, 1958; Weiss, 1999; Lowder, Scoet, and Raney, 2016). Paradoxically, it is these smaller, predominantly family-owned farms that still represent a crucial element contributing to food security in many regions (Lowder, Sánchez, and Bertini, 2021). Furthermore, these farms function as intergenerational socio-cultural links, serving as spaces for preserving local cultural heritage and forming an integral part of the character of the rural economy and its landscape (Sciortino et al., 2025).

In contemporary agri-food systems, long and often highly globalised supply chains structurally dominate the agribusiness landscape (Gereffi, Humphrey, and Sturgeon, 2005; Bečvářová, 2008). These long supply chains may consist of a large number of intermediary nodes, starting from suppliers of biological inputs, through primary growers and the processing industry, to wholesale networks, retail, or catering and restaurant facilities (Bečvářová, 2005). Although this model generates economic benefits for our society, a series of contemporary global crises has highlighted the systemic risks associated with its fragmented and excessively complex nature (Reardon and Timmer, 2012; Laborde, Martin, Swinnen, and Vos, 2020).

For farmers, integration into the structure of long food supply chains presents a range of interconnected economic challenges that ultimately can have negative impacts on their profitability, socio-economic sustainability, and overall well-being (Sexton, 2013; Ploeg et al., 2020). In this asymmetric market environment, the bargaining power of agricultural producers is weakened against highly concentrated multinational processors and retail enterprises. This can subsequently result in disadvantageous market conditions, as producers face barriers to entry stemming from the need to meet sufficient volume supplies, costly certification standards, and strict logistical requirements. Within this system, the agricultural producer is separated from the final consumer, making it difficult to build brand loyalty or understand consumer preferences. The consequence of all these issues for the producer is a significant reduction in profit margins (McMichael, 2009).

In this context, the emergence and development of short food supply chains (SFSC)s is promoted as a direct and systemic response to the increasing anonymity, structural complexity, and deepening disproportion of globalised long food systems (Renting, Marsden, and Banks, 2003). In current agricultural practice, two basic farm business models can be distinguished at a high level of generality. The first is the commodity model integrated into long food chains, characterised primarily by the maximisation of production volume and economies of scale,

though it provides the farmer with a very low realised profit margin (Marsden, Banks, and Bristow, 2000). In contrast, short food supply chains represent a business model based on the potential for realising higher added value. This concept, while more typical for small and medium-sized farms, is characterised by lower production volumes but offers highly differentiated, authentic products, ensuring that the potentially higher profit margin remains allocated directly to the farmer (Ploeg et al., 2000).

To address these critical challenges and improve the business ecosystem for these producers, the Visegrad+ Grants project *"Family Farms in Short Food Supply Chains: Transfer of experience from Czechia, Slovakia and Poland"* (Project ID: 22430104) was established and led by Mendel University in Brno. The project's core aim is to stimulate a change in food systems by collecting best practices from the Visegrad countries (Poland, Czechia and Slovakia) and sharing them with family farmers and relevant stakeholders in Georgia and Bosnia and Herzegovina. The Visegrad experience demonstrates that implementing SFSC chain selling arrangements, utilising modern social networks, and focusing on product innovations can fundamentally transform a farm's economic viability.

However, advocating for SFSCs also requires acknowledging a difficult reality. Having eager customers is only half the battle. Achieving true financial sustainability in more direct sales is highly complex. While gross margins may be higher, the actual net economic performance of an SFSC can sometimes be negative due to hidden costs and systemic inefficiencies. The financial gains won through premium pricing are frequently offset by the expenses associated with self-managed marketing, packaging, and the fragmented logistics of transporting small volumes of food. Operating within these SFSCs demands a remarkable amount of time and physical labour from the farmer. If a farm's operations are not carefully organised, this massive workload will consume the price premiums, leading to a widely documented phenomenon known as self-exploitation.

Therefore, to successfully adopt the SFSC practices promoted by this project, family farms must build a highly structured, viable business model. A good business model prevents exhaustion by managing logistics efficiently, balancing the workload, and guaranteeing a steady income. The *Business Model Canvas* methodology developed by Alexander Osterwalder and Yves Pigneur and used in this study, provides a practical, visual framework to systematically describe, design, analyse, and manipulate how a farm creates, delivers, and captures value. In line with the project's goal of disseminating knowledge and achieving systemic change in agricultural practices, the following text provides a blueprint for applying the Business Model Canvas methodology to family farms. By utilising this strategic tool, farmers can successfully integrate the innovative SFSC models observed in Central Europe, escape the commodity trap, and secure a sustainable, independent future for their farms.

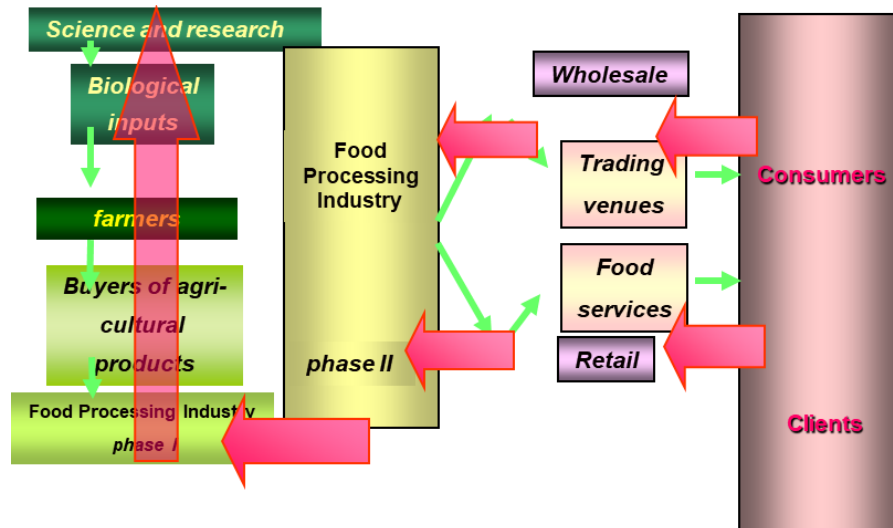
Conceptual Framework

Characteristics of the current (Globalised) Food System

Unlike the vast, automated nature of modern food systems that often strip away flavour for efficiency, Short Food Supply Chains (SFSC) restore the intimacy of the trade. They turn a global commodity back into a local relationship, linking the producer's soil directly to the consumer's kitchen.

To understand the importance of SFSCs, we first need to look at how the current standard works. Currently, our food systems are dominated by long and often highly globalised supply chains. While these models may bring economic benefits, the series of global crises in recent years has clearly identified several risks associated with such fragmented and complex production models. As you can see in the diagram (figure 1), these long chains involve a tremendous number of intermediaries – from suppliers of biological inputs to primary farmers, multiple phases of the food processing industry, wholesale, and finally retail.

Picture 1 - Main actors and relationships in long food supply chains
Source: Becvarova (2005)



For farmers, integrating into these long chains brings a multitude of interconnected economic problems that can impact their profitability, sustainability, and overall well-being. Individual farmers typically lose bargaining power to negotiate prices with strong processors and multinational retail networks, which often leads to unfair contracts and unfavourable conditions. Farmers also face high barriers to market access due to costly certifications and logistical requirements. There is a complete distancing from final consumers, making it harder to build brand loyalty or understand consumer preferences. And what is most painful for farmers – profit margins can be drastically reduced, because multiple actors in the

chain take their cut, leaving farmers with a smaller share that makes it difficult to even cover production costs. The emergence of SFSCs represents a direct response to this increasing anonymity and complexity of globalised, industrialised food systems.

Defining Short Food Supply Chains and Alternative Food Networks

The original conceptualisation of SFSCs was done by Marsden et al. (2000) and Renting et al. (2003). Over time, SFSC has gained significant prominence, particularly in the realm of policymaking.

But what exactly do we mean when we say a chain is "short" or "local"? We define this using so-called domains of proximity. These are:

- Value-chain distance: Decreasing the number of intermediaries between the farmer and the consumer, with institutional definitions often limiting this to one or zero intermediaries.
- Physical distance: Minimising the geographical space that food products must travel.
- Relational and informational proximity: Fostering cultural and social closeness by reconnecting producers and consumers. This is achieved through direct face-to-face interactions or by offering products embedded with information about their origins, which allows for different categories of SFSCs (face-to-face, proximate, and extended)

In terms of distribution, this includes a whole range of formats. These include e.g. direct on-farm sales, farmers' markets, community-supported agriculture (such as box schemes), deliveries to local schools or restaurants, or consumer cooperatives. Academically, these formats are often categorised under the umbrella of Alternative Food Networks (AFN). The term SFSC was initially introduced as a substitute for the concept of Alternative Food Networks (AFN). Despite often being used interchangeably with the broader concept of AFNs, the SFSC model serves as a more rigorous and specific conceptual tool. A recent shift in theory (Michel-Villarreal et al. (2025) offers a more precise and complete definition of AFN. In this new concept (figure 2), AFNs are characterised by four overlapping and foundational attributes that define their role in reshaping modern food systems. The concept of alterity defines these networks primarily by how they differ from, counter, or resist the dominant, industrialised, and highly standardised conventional food systems. Rather than being a single fixed trait, alterity exists on a spectrum that encompasses alternative foods prioritising unique quality, alternative networks focusing on direct distribution channels, and alternative economies that introduce new forms of enterprise organisation, financing, and working practices. Because these traits can vary widely depending on the initiative, the distinction between alternative and conventional systems is sometimes blurred, increasingly giving way to hybrid operational models.

Closely linked to this oppositional stance is the attribute of connectedness, which focuses on regaining and rebuilding the meaningful producer-consumer relationships that long, conventional supply chains have eroded. This attribute emphasises the creation of trust, care, and mutual commitment, allowing farmers to retain a larger share of their profits while simultaneously encouraging consumers to actively engage with agricultural and environmental challenges. Connectedness translates into practical, community-oriented economic models (e.g. Community Supported Agriculture) which require varying degrees of consumer involvement and shift the focus from passive individual consumerism to participatory, collective action.

Picture 2 - Key attributes of Alternative Food Networks
Source: Michel-Villarreal et al. (2025)



To facilitate this **connectedness**, AFNs rely heavily on proximity, functioning as mechanisms that fundamentally shorten food supply networks. Proximity is achieved across three distinct dimensions: minimising the physical geographical distance between the site of production and consumption, reducing the value-chain distance by eliminating corporate intermediaries, and enhancing informational and relational distance through direct face-to-face interactions and transparent product labelling. Finally, these networks are deeply associated with **sustainability**, embodying a strong commitment to the environmental, social, and economic dimensions of food production. While AFNs strive to promote ecologically sound agricultural practices, social justice, and the preservation of local food cultures, their actual sustainability is highly variable and contested. The literature stresses that the sustainability promise of AFNs must be

continuously and critically evaluated, as these initiatives often face significant challenges related to socioeconomic exclusivity, demographic bias, and a limited capacity to scale up and truly disrupt the broader dominant food regime.

Typologies and classifications of SFSCs

There is an enormous variety of SFSCs that have been categorised in multiple ways. Widely accepted classification groups SFSCs into three types based on the physical and relational distance between producers and consumers (Marsden et al., 2000; Renting et al., 2003):

- **Face-to-face SFSCs** involve direct physical interaction between producers and consumers at the point of sale. Common iterations of this model include farm-gate sales, farmers' markets, and 'pick-your-own' initiatives.
- **Proximate SFSCs** involve products sold within a limited geographic radius of their origin. Although direct personal interaction may be absent, the local identity of the goods remains transparent to the buyer. Typical examples include Community Supported Agriculture and consumer cooperatives.
- **Spatially extended SFSCs** decouple the point of production from the point of sale, allowing products to reach geographically distant markets. Despite the physical distance, the producer's identity and the product's origin are preserved through detailed information and branding. Key examples include regional certification labels and export goods with traceable origin data.

A report by the United Nations Industrial Development Organization (UNIDO, 2020) outlines six broad operational types of SFSCs:

- **On-farm sales** represent a foundational 'face-to-face' SFSC model, requiring consumers to visit the production site to acquire goods. Utilising formats such as farm-gate shops, roadside stalls, and 'pick-your-own' schemes, this zero-intermediary approach leverages direct physical interaction. These encounters enable producers to cultivate consumer trust, facilitate knowledge transfer, and provide a verifiable sense of agricultural authenticity.
- **Farmers' markets** are often categorised as 'neo-traditional' or 'modern' SFSCs, depending on their regional context. These venues serve as centralised hubs where multiple producers congregate (typically in urban or peri-urban areas) to engage in face-to-face commerce. While this model empowers farmers to capture higher margins by bypassing intermediaries, it also imposes substantial overhead in terms of logistics, transport, and the labour-intensive nature of active, on-site retailing.
- Classified as modern SFSC frameworks, **farmers' collective retail spaces and box schemes** represent a shift toward structured, recurring local commerce. Box schemes, in particular, utilise a subscription-based model to provide consumers with consistent

(often weekly) deliveries of seasonal produce. By automating the supply process, this model successfully embeds local food procurement into the consumer's lifestyle, establishing a dependable and habitual source of nutrition.

- **Consumer-driven initiatives**, such as Community Supported Agriculture and the Japanese teikei system, are partnership-based models defined by deep mutual commitment. By providing upfront capital through seasonal membership fees, consumers effectively co-manage the financial risks and agricultural rewards alongside the producer. This arrangement secures predictable income for the farmer while granting consumers a sense of agency, often extending to direct involvement in farm labour or operational governance.
- **Public procurement models** involve the sale of agricultural products to the institutional catering sector, such as schools and hospitals. Initiatives like 'farm-to-school' programs create robust economic channels for local producers while strengthening community food security by providing vulnerable populations with high-quality, nutritious meals. To meet the rigorous volume and standardisation requirements of these institutions, small-scale farmers often utilise food hubs or intermediaries to aggregate their outputs into a single, reliable supply chain.
- **Sales to the HoReCa sector** (hotels, restaurants, and catering) represent a business-to-business short supply chain model. This is formally categorised as an intermediate SFSC, as the culinary establishment serves as the sole intermediary between the producer and the final diner. While this channel offers farmers significant market expansion, it presents logistical hurdles for smallholders, who must meet the hospitality industry's strict demands for high-volume consistency and specialised product specifications.

Another framework categorises SFSCs based on how deeply consumers are connected to the act of food production (Michel-Villarreal et al., 2025):

- **Self-provisioning** occurs when the producer and the consumer are the same person, focusing on home-grown or artisanal production for private consumption.
- **Producer-consumer partnerships** represent a collaborative model where consumers exercise agency by entering into mutually beneficial agreements with farmers. By formalising these arrangements both parties share the inherent risks and rewards of the production cycle.
- **Direct-selling models** are characterised by moments of connection that facilitate regular social interaction between producers and consumers. These recurring engagements, typified by weekly farmers' markets.
- **Specialist retailing** involves a mediated supply chain where consumers interact with a dedicated third party rather than the original producer. These intermediaries (such as independent butchers, bakers, or organic grocers) curate local goods, serving as the primary point of contact for the end-user.

The SFSCs are frequently divided by whether or not they use an intermediary (Renkema and Hilletoft, 2022):

- In **direct-to-consumer models**, intermediaries are entirely bypassed. The producer maintains full vertical control, managing every stage from cultivation and processing to the final marketing and sale of the product.
- **Intermediate (or mediated) model** of SFSCs utilize a streamlined distribution model involving a single intermediary, such as a food hub. This intermediary functions as an aggregator, bridging the logistical gap between small-scale producers and high-volume buyers like hospitals, schools, or retail chains. By pooling resources, these chains allow local farmers to access broader markets that would otherwise be out of reach.

The Economic, social and environmental impacts of SFSC

The following section provides a summary of the body of knowledge presented in the published studies Marsden et al. (2000), Michel-Villarreal et al. (2019), Paciarotti and Torregiani (2021), Bayir et al. (2022), Gori and Castellini (2023), Jia et al. (2024), Scortino et al. (2025), Stepien and Guth (2025), and Dupé et al. (2025).

The economic impacts of SFSCs are highly complex and represent a significant trade-off between increased revenue opportunities and substantial operational costs. On the positive side, participating in SFSC allows farmers to shift from being price-takers to price-makers, enabling them to capture a much larger portion of the added value by reducing or eliminating corporate intermediaries. Farmers frequently benefit from price premiums because consumers are often willing to pay more for local, fresh, organic, and highly traceable products. This direct relationship helps to increase the overall gross income of small-scale producers and contributes to the economic stability and resilience of rural communities. Furthermore, this model stimulates local economic development through a local multiplier effect, meaning that money spent on food remains and circulates within the local community, supporting local job creation rather than being absorbed by global supply chains. In certain partnership models, such as community-supported agriculture, farmers also achieve greater income stability and financial visibility because consumers pay upfront for a season's harvest, thereby sharing the financial risks of farming and providing the producer with reliable cash flow.

Despite these higher gross margins, the actual net economic performance of SFSCs is highly heterogeneous and can sometimes be negative due to hidden costs and systemic inefficiencies. The financial gains achieved through higher consumer prices are frequently offset by the significant expenses associated with self-managed marketing, packaging, and the complex logistics of transporting small volumes of food to multiple delivery points. Because small-scale producers typically lack the economies of scale found in conventional long supply chains, they often struggle to minimise these per-unit distribution and transaction costs. Additionally,

operating within these localised networks demands a massive amount of time and labour from the farmer, who must personally handle processing, distribution, and direct consumer sales. Consequently, when calculating the actual net hourly remuneration, the financial return is often extremely low, leading to a widely documented phenomenon known as super self-exploitation where farmers effectively earn less than the minimum wage or what they pay their own employees.

Ultimately, the economic viability of engaging in SFSCs depends heavily on the specific context and the organisational strategies employed by the producers. Economic success is closely linked to the characteristics of the farm and the farmer's management skills, the implementation of hybrid business strategies that combine both short and conventional long supply chains to move larger volumes, and geographic proximity to affluent urban centers that provide a larger, willing customer base. To overcome the inherent logistical bottlenecks and financial constraints of direct sales, many smallholders increasingly rely on intermediate SFSCs, such as food hubs or agricultural cooperatives, which allow them to aggregate products, share distribution costs, and access broader institutional markets while maintaining the core values of local food networks. Therefore, while SFSC offer significant potential for local economic revitalisation and farmer empowerment, achieving true financial sustainability requires mastering operational efficiencies to ensure that the high costs of direct distribution and labour do not consume the resulting price premiums.

The social impacts of SFSCs are diverse and significantly alter the relationships between food production and consumption. Primarily, these networks play a crucial role in re-socialising food by breaking down the anonymity characteristic of conventional, industrialised supply chains and re-embedding economic transactions into personal relationships built on mutual trust, transparency, and respect. By fostering direct interactions between producers and consumers, SFSC enhance community engagement, build social capital, and create a strong sense of local cohesion and belonging. This reconnection often translates into broader civic participation and increased consumer awareness regarding sustainable diets, agricultural challenges, and food origins. Furthermore, these networks serve as vital mechanisms for preserving local cultural identity and biocultural heritage. They actively protect traditional agricultural practices, such as seed saving and seasonal planting, alongside regional culinary traditions and artisanal processing methods.

In addition to consumer-community dynamics, SFSCs significantly impact the social well-being and empowerment of the producers themselves. Engaging in these localised networks provides farmers with profound social recognition, peer support, and an enhanced sense of professional pride and job satisfaction. These chains also foster social equity and inclusion by creating accessible pathways for small-scale and uncertified producers who are often marginalised in global markets. They are particularly noted for supporting the integration of newcomers with no previous agricultural background into the farming profession and for

improving gender equality by valuing and empowering women's work within the agricultural sector. On a broader societal level, the localisation of food distribution contributes to regional food security and sovereignty, ensuring that communities maintain more reliable and equitable access to fresh, nutritious food, especially during times of crisis or global supply chain disruptions.

Despite these positive societal contributions, short food supply chains also present notable social challenges and limitations. A primary concern is the issue of inclusivity and food justice, as the higher prices often associated with local and organic products can create an exclusivity barrier, making these foods inaccessible to low-income households and inadvertently reinforcing socioeconomic or demographic inequalities. Additionally, the intense dedication required to sustain these alternative networks frequently takes a toll on the producers. The complex organisation of processing, marketing, and direct distribution tasks often leads to a heavy mental and physical workload, creating a significant risk of stress, burnout, and self-exploitation among farmers who may sacrifice their own working conditions and well-being to satisfy consumer expectations and maintain affordable prices.

The environmental impacts of SFSCs present a complex picture, characterised by significant benefits in agricultural practices but notable challenges in transportation and logistics. On the production side, SFSCs are widely associated with the adoption of environmentally friendly and agroecological farming methods. Farmers participating in these networks frequently use fewer agrochemicals, pesticides, and synthetic fertilisers, often opting instead for organic farming techniques that protect soil health and water resources. Furthermore, these localised systems play a crucial role in preserving agrobiodiversity and local biocultural heritage, as farmers are more likely to cultivate a diverse range of traditional, local, or heritage crop varieties rather than relying on industrial monocultures. Participants in SFSCs also tend to promote resource efficiency through circular economy principles, such as utilising organic waste, conserving water, and minimising post-harvest food losses. Additionally, direct sales channels typically require much less packaging compared to conventional retail, which significantly reduces the reliance on plastics and decreases overall packaging waste.

However, despite these ecological benefits at the farm level, the environmental impact regarding greenhouse gas emissions and the carbon footprint of distribution is highly debated. While it is commonly assumed that reducing the physical distance between producers and consumers automatically lowers emissions by decreasing food miles, lifecycle assessments often reveal a more nuanced reality. The transportation phase in SFSC can sometimes generate higher carbon emissions per unit of food than conventional long supply chains. This paradox occurs due to fragmented logistics, the use of smaller delivery vehicles with low load factors, and the lack of economies of scale. Furthermore, the environmental benefits of localised production can be entirely offset if individual consumers make frequent, dedicated round-trips in private cars to purchase small quantities of food directly from farms or specific markets. To

address these logistical inefficiencies and truly realise their environmental potential, researchers emphasise the need for SFSCs chains to adopt optimised distribution models, such as shared transportation networks, collaborative local food hubs, and improved routing strategies that consolidate deliveries and reduce overall fuel consumption.

How to build a successful farm business model in SFSCs?

When talking about farming in practice, we deal with two fundamental business models. The first is the **Commodity Model**, which is typical of long food supply chains – it relies on high production volume but offers a very low margin. Conversely, short food supply chains represent a **High-value Model**. This is generally more typical for smaller farms and is characterised by a lower volume of production, a differentiated and unique product, and most importantly, a high margin that stays with the farmer.

When farmers switch to selling locally, they can no longer rely on the massive volumes of industrial farming, meaning they often have to charge a higher price to cover their costs. This is where a strong **value proposition** comes in. A value proposition describes the specific benefits that customers can expect to receive from farmers' products and services. It is the set of benefits farmers design to attract a specific customer segment by helping them complete their tasks, alleviate their frustrations, and achieve their desired outcomes.

Designing a strong value proposition is important because it ensures farmers build what customers actually want instead of just focusing on technologies or product features. It directly targets farmers' customers' most pressing jobs to be done, extreme pains, and essential gains. By doing so, it helps farmers achieve fit between what the farm offers and what gets customers excited. Farmers' customers are the ultimate judge of value proposition, and they will be merciless if farmers fail to find this fit.

Furthermore, systematically designing and relentlessly testing the hypotheses underlying farmers' value proposition minimises the risk of failure. It prevents the common scenario of launching bold projects or building products that nobody actually wants, ultimately saving time, energy, and money. Internally, the process of designing a value proposition equips farmers team with a shared language to communicate and collaborate effectively. This shared understanding helps overcome unstructured, unproductive meetings and ensures that product development, marketing, and sales are all aligned on how value is being created. Finally, a great value proposition is the crucial foundation of a profitable business model, which allows farmers to capture value, differentiate from competitors, and ultimately survive.

However, having eager customers is only half the battle; farmers also need a solid **business model** to actually survive economically. Selling more directly to consumers forces the farmer to take on a lot of extra, time-consuming jobs like marketing, packaging, and driving around for deliveries. If this isn't carefully organised, the costs and massive workload will completely

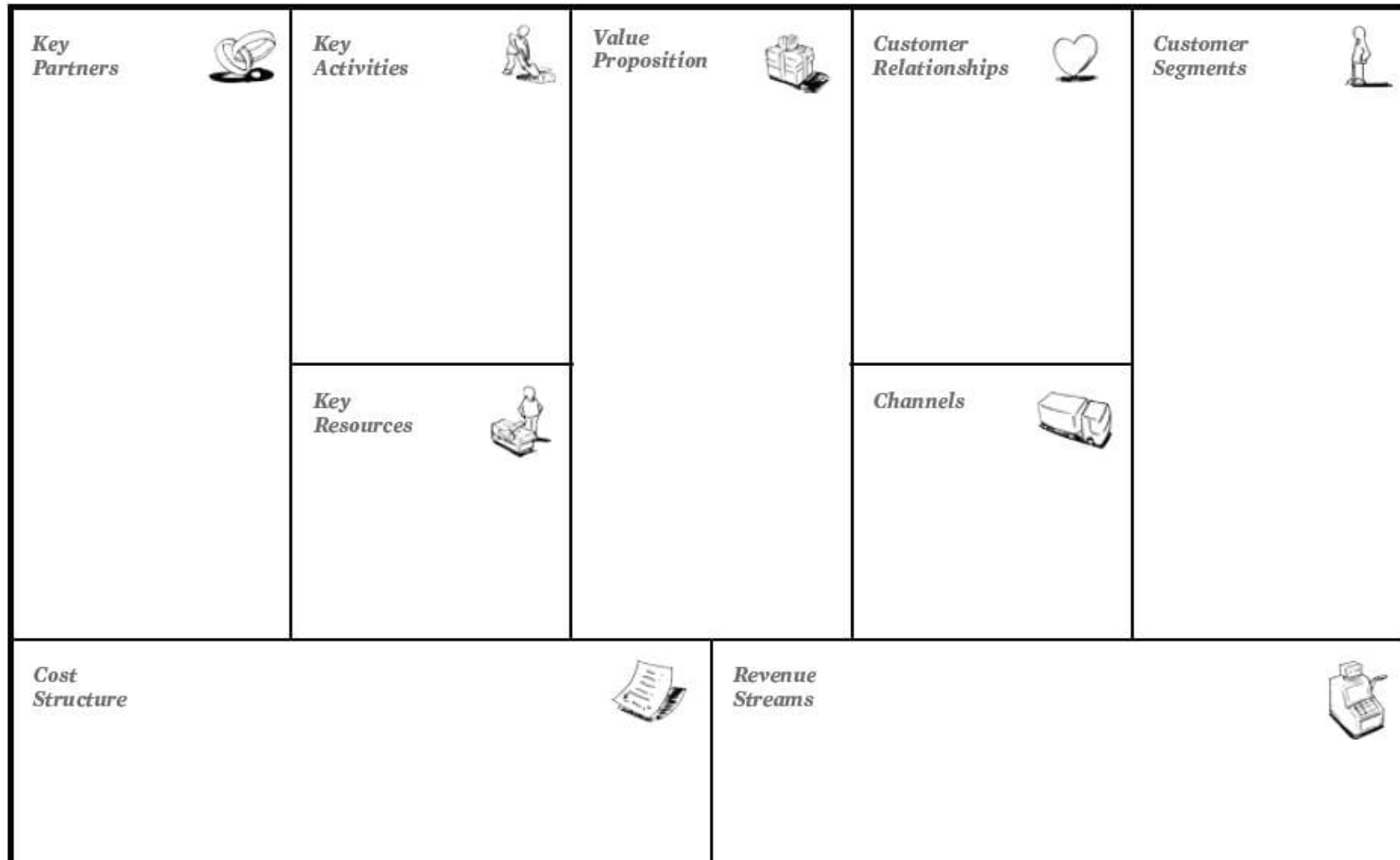
eat up the price premiums they make, leading to severe burnout where the farmer might effectively earn less than minimum wage. A good business model prevents this exhaustion by managing logistics efficiently, often by having the farmer team up with local actors or by mixing local sales with larger wholesale orders to balance the workload and guarantee a steady income.

The Business Model Canvas methodology was developed by Alexander Osterwalder and Yves Pigneur (Osterwalder a Pigneur, 2010) and it provides a practical, visual framework used to systematically describe, design, analyse, and manipulate new or existing business models. At its core, the methodology provides a shared language that describes the rationale of how an organisation creates, delivers, and captures value.

This framework illustrates a business model through nine basic building blocks (Figure 3) that cover four main areas of a business: customers, the offer, infrastructure, and economic viability. The methodology identifies Customer Segments as the distinct groups of people or organisations an enterprise aims to reach and serve. To satisfy these segments, an organisation offers Value Propositions, which are specific bundles of products and services that solve customer problems or fulfil needs. These propositions are delivered through Channels, encompassing communication, distribution, and sales methods. The framework also outlines Customer Relationships, which define the types of interactions established with each segment. Financial returns are captured by Revenue Streams, representing the cash generated from successfully offering value to customers. To operate, a company relies on Key Resources, the crucial assets required to make the model work, and Key Activities, the most important actions a company must perform. These operations are supported by Key Partnerships, the network of suppliers and alliances that optimise the business model. Finally, all the operational expenses are accounted for in the Cost Structure.

Structurally, the Canvas is divided into two halves: the right-hand side focuses on value creation and the customer, while the left-hand side is dedicated to infrastructure and costs. A central component of this methodology is visual thinking. The Canvas functions best when printed out as a large poster, allowing groups to collaboratively sketch, discuss, and build upon ideas using sticky notes and markers. This visual approach turns tacit, abstract assumptions into explicit, tangible information, creating a collective reference point that helps teams grasp the big picture and the complex interdependencies between elements. The methodology is heavily utilised for business model prototyping.

Picture 3 - Business Model Canvas
Source: Osterwalder and Pigneur (2010)



Examples of farmers implementing SFSC strategy in Poland, Czechia and Slovakia

In today's highly competitive agricultural landscape in Central Europe, small and medium-sized farms often struggle with the strict volume requirements, low purchase prices, and weak bargaining power inherent in long supply chains. This book presents nine comprehensive case studies of farms from the Czech Republic, Poland, and Slovakia. These selected farms demonstrate how to successfully pivot toward SFSC by focusing on alternative business models, thereby achieving economic resilience, environmental sustainability, and deep community integration. The case studies showcase a highly diverse range of specialisations, proving that strategic innovation can be applied across various sectors. Instead of selling raw commodities to wholesalers, successful farms take control of their product processing to create high added value.

For instance, the Czech Farm Nelepeč established its own mini-dairy to process organic milk into quality cheeses and award-winning desserts, effectively escaping a market where industrial dairies refused to pay a sufficient premium for organic certification. Similarly, the Slovak farm PEMAK SK transitioned from selling raw poppy seeds to producing high-value cold-pressed oils, cosmetics, and chocolates, allowing for better price control and funding for agricultural innovations.

These farms also demonstrate that cutting out intermediaries not only captures the higher share of created value but also builds customer loyalty. Farm Jalubí in the Czech Republic bypasses conventional retail by selling beef in direct-to-consumer family packages, communicating availability directly through SMS to a steady community of local buyers. In Poland, Farm Chrzypsko Małe sells a large portion of its traditional, minimally processed dairy products directly from a designated room in the farmer's basement, leveraging personal conversations and word-of-mouth to build a dedicated customer base.

Innovative economic models and modern distribution platforms are another characteristic of these good practices. The Polish farm Eko-Zakątek is an example of implementing Community Supported Agriculture model, offering subscription-based baskets of organic vegetables that secure upfront financing and deepen the farmer-consumer partnership. The Polish apiary Pasięka Gucio utilises modern collective e-platforms, such as the "Rural e-foodbox," to reach urban customers efficiently, while enhancing their core product with experiential services like on-farm apitherapy. Furthermore, the Adámek Family Winery maintains its competitive position against cheap wine imports by heavily relying on direct cellar sales and a self-organised delivery network managed via text messages.

Finally, the Slovak case studies highlight how farms can become multifunctional rural hubs through vertical integration and agritourism. TBS achieved total vertical integration by

combining organic cattle breeding with its own meat and fruit processing plants, a craft brewery, and the Adam agro-pension, ensuring the farm retains the entire generated value from field to table while boosting regional tourism. Madonan differentiates itself by producing highly digestible A2A2 milk and pairs its modern e-shop and drive-in distribution with an experiential farm park, educating the public and creating a loyal family of customers. By exploring these specific value propositions, customer segments, and distribution channels, this book provides farmers with practical evidence that integrating into SFSCs and embracing customer-centric innovations can lead to a sustainable future in agriculture.

Table with characteristics of the compared farms

Figure 1 – Table with characteristics of the compared farms

Source: Food Chain Project (<https://1url.cz/71vzD>), compiled by the authors

Case Study	country	Specialization	Land and production capacity	Key SFSC distribution channels
Farma Chrzypsko Małe	PL	Crop production, dairy products and eggs	25 ha of land, 14 cattle, 50 laying hens	Selling from the basement of the house, direct deliveries to local schools, hospitals and hotels
Eko-Zakątek	PL	Organic production: vegetables, hazelnuts, oils, meat products	10 ha of land (6 ha of hazelnut orchard, 4 ha of vegetables)	Community-supported agriculture (Healthy Basket), e-shop
Pasieka Gucio	PL	Beekeeping	2 ha of permanent grassland, 79 bee colonies	Regional markets and festivals, direct sales, e-platforms "Village e-foodbox" and "Polish e-bazaar"
Farma Nelepeč	CZ	Organic production: milk production and processing	90 ha of land, 60 head of cattle (of which 30 dairy cows)	Self-service shop on the farm, deliveries to local shops and restaurants
Adámkovo vinařství	CZ	Winemaking	12.4 ha of vineyards, annual production of up to 200,000 litres of wine	Direct sales in the cellar, own logistics and deliveries to customers
Farma Jalubí	CZ	Beef cattle	150 ha of agricultural land, 20 cows to grow to 100 heads	Selling from the farm, direct delivery to customers
Madonan	SK	Production and processing of A2A2 milk	164 cows	Own shop and e-shop, delivery to specific locations (Madonan Drive)
PEMAK	SK	Organic production: poppy cultivation and processing	530 ha of land (of which 100 ha in conversion to organic farming)	Own shop, and e-shop, Slow Food community market
TBS	SK	Organic production: beef cattle, vertical integration (meat, fruit, beer)	150 ha of land and pastures, 120 beef cattle	Selling from the farm, own hotel and restaurant, farm shop in the city, farmer's markets

Case study 1: Farm Chrzypsko Małe

Tradition and embeddedness in the community

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Country	Poland
Region	Wielkopolska
Farmer	Hanna
Age	57
Gender	female
Education	Secondary school / agricultural education
Experience	40
Specialisation	Crop production, milk
No. family members	6

Description of the region

The farm is in the town of Chrzypsko Małe, in the Międzychód district and the Wielkopolska Province in Poland. This region is located in the transitional temperate climate zone, characterised by a temperate climate with minor temperature fluctuations compared to other regions of Poland. The inflow of maritime air masses from the west and continental air from the east shape the climate, which gives a variety of weather conditions. The average annual temperature is about 8°C, and the annual rainfall ranges from 500 to 550 mm. The terrain is lowland, with small hills shaped by the surrounding basins with lakes. Forest land (over 45%), followed by agricultural land (43%), dominates the region. The soils are of medium quality, intended mainly for the cultivation of cereals, corn and rapeseed.

The Międzychód district is known as the "Land of 100 Lakes" and is an attractive tourist destination. There are numerous hiking and cycling trails, fishing bases, kayaking ports, and other water attractions. The area is well-connected. The farm is close to a small village with a population of about 100 people, two kilometres from the community with a population of 3500 inhabitants. There are three other towns close to the farm: 1) Wronki with a population of 10.5 thousand inhabitants, 2) Pniewy with a population of 8 thousand inhabitants, and 3) Sieraków with a population of 6 thousand inhabitants. The city of Poznań, with a population of 600 thousand inhabitants, is located 60 km from the farm.

Picture 4 - Chrzypskie Lake
Source: Photo by author of case study



The community is predominantly agricultural in nature, but tourism activities are also present, especially during the summer. In addition to the permanent residents, immigrant residents, mainly from Poznań, have their own properties in the region. In the community, there are several beaches at the lake, rooms for rent, agri-tourism events, and one hotel.

Farm history, resources, technology and production of the farm

The farm was purchased by the great-grandfather of Mrs. Hanna's husband from the previous owner, of Jewish origin, at the beginning of the 20th century. Initially, it had an area of less than 10 hectares of agricultural land and a mixed type of agricultural production. Before World War II, the grandfather owned the property. During the war, the family was displaced to another province, but returned to the farm shortly after the war. During the centrally planned economy period in the second half of the 20th century, the farm remained private property of the family, but with the obligation to make mandatory deliveries. The subsequent owners were Mrs. Hanna's husband's father and then her husband (in the 1980s). Mrs. Hanna became co-owner of the farm in 1987, after she married into the family.

Since the 1990s, the farm has expanded its acreage (from about 10 hectares of agricultural land to about 25 hectares, including leased land). The farm had to change its production profile

to fit market requirements and stopped pig production. On the other hand, the farm has specialised more in field crops and dairy cattle. The farm operates on about 25 hectares of agricultural land and cultivates mainly cereals and corn. Additionally, a small share of land allows for potato production for the family's needs, and four hectares produce permanent grasslands—an intermediary purchases about 80% of the grain harvest on contract. The rest of the grain feeds the cows and hens on the farm. The corn harvest feeds the animals in total. The hay for feeding also comes from farms' permanent grasslands. The farm keeps dairy cows, heifers, calves (14 animals) and bulls (5 animals). Production takes place in a closed system. Calves are born on the farm and then fed with milk and feed from the farm's own production. Additionally, the farm keeps 50 laying hens.

The dairy produces about 200 litres of milk daily, and the average daily milk production is 25 litres per cow. About 10% of the milk goes for household consumption and calf feeding. The remaining 90% is processed and sold through the short food supply chain. The processed dairy products consist of cottage rennet cheese, fresh white cheese (quark), smoked cheese, cream cheese and butter. Weekly sales are about: 1) 80 pcs. of cottage rennet cheese, 80 pcs. of fresh white cheese, 30 pcs. of smoked cheese, 30 pcs. of cream cheese, and 20 cubes of butter. SFSCs absorb about 80% of the eggs (the family consumes the rest). Average weekly egg sales average about 200 pcs.

Mrs. Hanna, with her husband, her son, and her daughter-in-law, is involved in farming operations. The husband and son organise crop production, and the daughter-in-law takes care of the animals. Mrs. Hanna manages the processing of products, sales and sales-related operations and tasks. Farm equipment comprises two tractors, two trailers, a loader, a plough, a seeder, and a sprayer, while renting the rest of the machines from the municipal agricultural service point during harvest periods. The most recent investment was in photovoltaic systems.

The farm cooperates and keeps various partnerships with other business entities, such as: 1) the buyer of grain with whom farm signs annual contracts to supply the raw materials; 2) the supplier of inputs e.g. fertilizers and plant protection products; 3) also regular contacts are maintained with agricultural advisors and members of the agricultural chamber; and 4) cooperation with local authorities.

To sum up, in the past, the farm was focused on mixed plant and animal production. Such a diversification of production ensured greater income stability, but made it difficult to achieve scale effects and required significant involvement of the workforce. Currently, the farm is more specialised, having given up pig farming and switched to cattle farming. The farm specialises in grain and corn cultivation, along with milk production.

Picture 5 - Farm and its land
Source: Photo by the author of case study



The farm has two main sources of revenue. Most of the grain is sold to an intermediary and the price paid to the farmer corresponds to the current market price. The farm uses no price risk management tools, and the revenue is variable, depending on market conditions. The second leading source of revenue comes from short food supply chains, which consist of milk production and the sale of dairy products, as well as the sale of eggs.

Sales prices of products offered by the farm in its short food supply chains are similar to the average prices of similar products in retail chains (or sometimes even lower). As Mrs. Hanna says, *"since I do not have to share with intermediaries, I can afford a lower price."* Such a pricing policy increases customers' interest, especially those who are price-sensitive. Currently, the farm offers cash payments, which sometimes makes it challenging to settle transactions. Fortunately, there is an ATM in a nearby community. An important source that positively contributes to the economic sustainability of the farm is direct payments from the CAP budget.

Reasons for integrating in the Short Food Supply Chain

In recent years, the profitability of pig production has dropped significantly in Poland. The main factors were rising costs associated with ensuring appropriate animal welfare conditions. The reason for tightening the regulations was the repeated occurrence of animal diseases, which compelled farmers to make necessary investments. For this reason, the farm gave up the production of pigs in 2019 and changed its specialisation to dairy cattle. The farm was selling the raw milk, and (at that time) only a small share of milk was processed (fresh white cheese and butter) and sold directly to neighbours in the town. At that time, milk prices fluctuated, causing economic instability and poor profitability in milk production. In 2020, a significant milk price decline in the dairy sector prompted farmers to reconsider their farm strategy. The direct impulse to engage in short supply chains was a case of such marketing and sales in the farmers' families. Mrs. Hanna saw the success of such a strategy and decided to expand the range of dairy products, starting to produce rennet cheeses. A family member who had started such sales a few years earlier provided advice on how to produce it.

Picture 6 – Farm's homemade cheeses 1
Source: Photo by the author of case study



Picture 7 – Farm's homemade cheeses 2
Source: Photo by the author of case study



The family member was the one who taught Mrs. Hanna how to process the milk into various dairy products. In the following years, Mrs. Hanna experienced the growing interest in different types of cheese among customers and expanded the range of products, including cream cheeses and smoked cheeses. The cheesemaker added new cheese flavours to the product portfolio. The farmer also attempted to produce maturing cheeses, but abandoned the idea due to storage problems (a lack of suitable maturing conditions). Currently, the product portfolio consists of four types of cheese, butter and eggs, while offering rennet cheeses in various flavours, e.g. dried tomato, wild garlic, red pepper, Provencal herbs, fenugreek, black cumin, walnut, and fried onion. The farmer regularly introduces new flavours, drawing inspiration from customer suggestions, reading culinary guides and watching thematic programmes.

Specific Way the Farm Engages in the Short Food Supply Chain: Customer segments, channels and customer relationships

The value proposition of the farm from Chrzypsko Małe rests on high-quality, tradition and sustainability. In more detail, the farm offers high-quality products with unique taste and characteristics, produced using traditional methods that respect the natural environment and

animal welfare. The needs of customers and the attitudes of the farm owners determine the value proposition.

The farm uses five distribution channels. The most important are sales directly from the farm, which account for approximately 60% of the products. The farm has a specially designated room where products are processed and stored in the basement part of the residential building. The temperature in the basement, as well as refrigerators, allows for keeping products fresh for a long time. When customers visit the farm to buy the products, they ring the doorbell and the owner invites them to the room, where the trade takes place. There is no product list, but the refrigerators are glass-walled, so the customer can see the product and choose one. Prices reflect on the products.

The second distribution channel is the delivery of products to individual customers (approx. 20% of sales), especially in the case of large orders, e.g. from a dozen or so to several dozen pieces of cheese.

The third distributional channel is delivery to local schools and hospitals (totalling approximately 10% of sales). Through personal contacts with the principals of these facilities, Mrs. Hanna delivers her products to the employees of these facilities. A list of prospective customers accompanies the assortment. Then the principal or another person calls the farmer with an order, and delivery takes place within one or two days.

The fourth distributional channel involves deliveries to a hotel located on a lake near the village where the farm is situated (approximately 5% of sales). There is a poster with the offer at the hotel reception. Some guests place orders at the reception, then a hotel employee calls Mrs. Hanna to deliver the order. Delivery usually takes place the same or the next day.

Figure 2 - Business Model Canvas

Source: Author construct based on data from the interview with farmer and its family

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Municipality of Chrzypsko Wielkie Agricultural advisors Agricultural Chamber Supplier of fertilisers and pesticides Grain processor	Crop production – for sale and feed for cattle Production of milk Farm processing of milk into farm-made products Farm's products sale Key Resources Land Fixed capital (machinery, tools) Farm milk processing facility Human resources (family labour) The farmer and her know-how and invention	Farm from Chrzypsko Małe delivers high quality products with unique taste and characteristics, produced by traditional production methods with the respect to natural environment and animal welfare.	Farmer does not create a specific sales strategy for each customer segment Direct contact when customers shop at the farm Interaction on social media Currently focused on customer retention Channels Grain sold to processors (80% of total production) Grain (20%) and corn (100%) used for fodder Milk processing on a farm (90%), of which: sale directly from a farm (60%) delivery to individual clients (20%) Local school (5%), local hospital (5%) Hotel (5%) Events (5%) Eggs sold directly from a farm (80%) Communication with customers: Direct contact between the customer and the farmer and her family Telephone contacts Participation in events Contact with a director of school and hospital Membership in Agricultural Chamber	Frequency: Regular (50%) Non – regular (50%) Residential status: Local residents (40%) Seasonal, summer inhabitants of the village (20%) Tourists (25%) Employees of school and hospital (10%) Hotel guests (5%)

Cost Structure

Crop production – 65%, including:

- grain for sale – 40%
- grain for fodder and corn >20%
- others <5%

Cost of milk production >30%

Cost of eggs production <5%

Other SFSCs costs, e.g. sales, customer relations

Revenue Streams

Sale of grain to the processor (80% of grain production)

Sale of processed products to individual clients (80%)

Sale of processed products to the school and hospital (10%)

Sale of processed products to the hotel (5%)

Sale of processed products via events (5%)

CAP agricultural subsidies

The last distribution channel is local events (approx. 5% of sales). Several times a year, the Chrzypsko Wielkie community organises festivals and fairs on the beach of the nearby lake. Residents as well as tourists attend these events. The farmer sets up a small stand and sells the farm's products during these events. These festivals and fairs also provide an opportunity to promote the farm's products to the audience from the region, as well as those coming from other regions.

Generally, the farm's customers consist of two groups, namely regular customers (who constitute about 50%) and the other half, consisting of non-regular customers. Regular customers are primarily residents of villages and nearby towns, within a radius of about 15 to 20 kilometres, who constitute about 40% of all customers. This group also includes summer residents who have recreational plots by the lake (about 20%). Regular customers also include employees of the school and hospital, i.e. institutions to which products are regularly delivered (10%). The remaining customers are mostly tourists visiting the region, sometimes spending their holidays there, or participants in local events, such as festival visitors and hotel guests (30%). Thus, the farm's revenue is usually higher during the summer.

A typical customer is someone who appreciates the quality and taste of traditional products and is seeking something unique from what conventional retail chains offer. As Mrs. Hanna says, *"customers buy from me and often come back to me because they say they appreciate the taste of the cheese. Moreover, the eggs also taste better than those from the supermarkets."* Products offered by the farm are available at an affordable price, comparable to those in retail chains, and sometimes even cheaper, illustrating that the situation with more expensive local and traditional food compared to non-local products, often presented in the media, is not entirely accurate, and there are exceptions.

The reason is that shortening the supply chain decreases the number of intermediaries (who can capture part of the margin) and the farmer gets all the created value. Sometimes in such a situation, the farmer can afford to lower the prices of the product. Most customers also reveal a fondness for traditions and a concern for the natural environment and animal welfare. It is important to these customers that, e.g. eggs come from free-range hens. Also, older customers emphasise that the cheeses they buy remind them of those from their youth, when food was produced less processed and without the use of many artificial additives. The most effective channel for communicating the farm's value proposition is word of mouth and personal contact with customers during farm visits. Mrs. Hanna says: *"For me, the most important thing is to hear that people praise my product. When I ask customers how they found out about my farm, most answer that they came here on the recommendation of another customer. That makes me very happy."* She estimates that about 70% of customers discover the farm's production and proposition in this way. The farm also uses an advertising banner placed near the house on the way to the beach and a nearby bar.

Picture 8 – Banner promoting the farm
Source: Photo by the author of case study



Another way to communicate the value proposition to customers is by telephone. Customers get the farm number from other people who know the farmer. A way to develop sales is to utilise the personal relationships of the owners with employees of schools, hospitals, and hotels. Occasionally, farm products feature at local events (festivals, fairs). Mrs. Hanna's husband is a member of the Agricultural Chamber. He spreads the word about the farm among

other members of the Chamber. According to Mrs. Hanna, *"This way we have grown quite a large number of regular customers, mainly from the area."* When asked why modern forms of communication, such as the Internet or applications, were not used, Ms. Hanna replied: *"At the moment we have enough orders, we would not be able to process more, we lack the hands and time."*

During the time of the transaction, when the customer is buying the product, Mrs. Hanna is using personal contact to build relationships with clients. She is trying to establish closer relationships through conversation, sharing her work, and showing the farm and its surroundings. When she knows the customer better, she can even offer coffee or tea to the customer as a way of expanding her network of regular customers and even friends. The farmer does not create a specific sales strategy for each customer segment; she tries to treat everyone in this friendly way.

Case study 2: Eko-Zakątek (Eco-Corner) Community Supported Agriculture model

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Country	Poland
Region	Greater Poland (Wielkopolskie) voivodeship
Farmer	Agnieszka & Zbigniew
Age	50 / 50
Gender	Marriage
Agrarian education / level of education	Agnieszka: higher education, Zbigniew: higher education, economics
Experience in farming	7
Farm Specialization	Organic farm, mixed production – crops
No. household members	5

Description of the region

The Eko-Zakątek farm is situated in Chraplewo, a few kilometres from the town of Kuślin, in the western part of the Wielkopolska province. Wielkopolska has one of the highest living standards among Poland's provinces. The Kuślin community occupies an area of 106.5 km² and is predominantly agricultural. Around 75% of the land (nearly 7,980 hectares) is used for farming, while nearly 20% (2,035 hectares) is forested. The community is home to approximately 5,500 residents. The A2 motorway passes through Kuślin (connecting Warsaw and Berlin), giving the region good transport infrastructure and making it an attractive destination for both investors and tourists. For many residents and visitors, the area around Kuślin is mainly associated with its beautiful landscape and historically with Emilia Szczaniecka, a participant in national uprisings and a 19th-century social activist. Thanks to the warmth and hospitality of the local inhabitants, the area around Kuślin offers a peaceful retreat amidst stunning nature.

Summers are quite comfortable in the Kuślin community, while winters tend to be cold, snowy, and windy. Throughout the year, temperatures typically vary between -3°C and 24°C. During summer, daily maximum temperatures hover around 22°C, with daily minimums usually around 12°C. Rainfall is generally more intense between mid-May and the end of December. July experiences the most rainfall days, with an average of 57 mm. The driest period occurs in

winter until about mid-May. The growth season usually lasts around 190 days annually, starting after mid-April and ending before the end of October. Agricultural production is of low to medium intensity. The farm structure is fragmented, with the majority (about 70%) being smaller than 10 hectares. Crops mainly consist of cereals (wheat, rye, barley, triticale), root crops (potatoes, fodder and sugar beets), vegetables (carrots, parsley, celery, leeks, onions, cauliflower, cabbage, cucumbers, tomatoes), and, to a lesser extent, orchards featuring apple trees, pears, plums, sour cherries, sweet cherries, and soft fruits such as strawberries, raspberries, currants, and gooseberries.

Farm history, resources, technology and production of the farm

In October 2016, after 14 days of hard work and with the support of family and friends, Agnieszka and Zbigniew completed planting 3,500 hazelnut trees. The orchard mainly features the Catalan walnut variety, along with other varieties that serve as pollinators (Czerwony Warszawski, Barcelona, Barbakan, Giant of Halle, Cosford). Originally, the idea of planting a hazel orchard was a distant vision of combining work and hobby during retirement. However, the pandemic and changes in their working lives prompted the owners to start exploring a business plan and a new source of income from the family's existing resources.

Picture 9 – Hazelnut products
Source: Eko-Zakątek



Their vision was shaped by their dream of the so-called slow life. Additionally, the pandemic and the isolation during lockdowns prompted many of the current customers of Eko-Zakątek farm to reconsider their current work-life balance as well as the quality of the food they consume. Many of these customers rediscovered the pleasure of preparing home-cooked meals and recognised the importance of controlling the quality and origin of the ingredients used for cooking. Agnieszka and Zbigniew responded to these needs by establishing a large "greengrocer's shop" and delivering seasonal vegetables directly to customers, following the "from field to table" philosophy. Their "Health Basket" project was well received, and in the following years, the farmers systematically expanded their vegetable portfolio and began certifying their production process as organic.

Next, they began a small vegetable processing plant to increase the value of their farm production. Their reasons were twofold: (1) to reduce food waste and vegetable losses, and (2) to meet the needs of customers seeking ready-made and preserved foods made from high-quality ingredients. First, Agnieszka and Zbigniew started with vegan dishes free from artificial additives, preservatives, and flavour enhancers. It turned out that old recipes and homemade

flavours were very well received. Later, the farmers also decided to establish a small butcher's shop on the farm and to produce cold cuts.

Currently, the farm covers 10 hectares, with 6 hectares dedicated to common hazelnut production and the remaining area used for vegetable production. The farm is well organised and managed. Their knowledge and experience gained in other professions and companies are effectively applied and greatly assist in decision-making. The farm features a degree of diversification in activities and distribution channels. It also generates electricity through installed photovoltaic panels. As stated on their farm's website, Agnieszka and Zbigniew "created Eko-Zakątek because of love...for healthy food, due to concern...for the natural environment, due to the need...to share their passion, and due to the desire...to live in harmony with nature." They believe in the fundamental importance of nature and the long-term benefits of proper and healthy nutrition based on high-quality products. Additionally, they resonate with Dr. Linus Pauling's idea that "proper nutrition is the medicine of tomorrow," confirming the significance of this approach.

Key resources, technology and the production of the farm

Farmers see its workforce (own and hired, including seasonal), unique experience and skills built over years, including organising distribution channels, a strong position in segments (vegetables and preserves, nuts, oils, meats), and technical infrastructure (kitchen, cold store, freezer, refrigerated trucks suited for food transport) as its key resources.

An important product offered by the farm is the Health Basket. It follows community supported agriculture (CSA) principles. It requires careful organisation from production to distribution. The farm uses organic methods, which include avoiding pesticides, herbicides, and fungicides. It also refrains from using artificial fertilisers, instead relying solely on natural fertilisers such as manure and straw. In autumn, farmers plan crops for the upcoming spring. Generally, the farm grows vegetables and herbs, including various types of lettuce (butterhead, iceberg, romaine), rocket, spinach, radish, chives, dill, onion, chard, rhubarb, parsley, celery, beetroot, carrot, cucumber, tomato, garlic, zucchini, mangold, kohlrabi, green beans, leek, parsnip, black salsify, pumpkin, swede, broccoli, cauliflower, hot peppers (e.g. habanero), marjoram, nettle, and others. During the season, in harmony with nature's rhythm, plants are harvested early in the morning, prepared, packed into baskets, and swiftly delivered in a cooled truck to customers. However, this is not the end of the relationship with customers. Both long-term and new subscribers often form groups on social media, sharing recipes and methods for processing and storing produce. Vegetables not delivered are processed on the farm into products such as pickles (cabbage, cucumbers, beetroot, carrots), sourdough, dinner sauces, soups, sandwich spreads, seasoned beetroot, zucchini, peppers, red cabbage, kimchi, beans, preserves, fruit in marinades, and syrups made from lavender and elderberry, as well as fruit juices. These products are sold out of season, for example, via the farm's website.

Another important product from the farm is hazelnuts and processed hazelnut products such as roasted nuts, hazelnut paste (similar to peanut butter), hazelnut flour, and hazelnut oil (which is a very tasty ingredient for cakes, salads, and coffee). Extremely popular among customers is hazelnut paste (an alternative to traditional peanut butter). The paste is made from roasted nuts, but the exact production process is kept secret by the owners. Additionally, the farm processes other oil plants by pressing black cumin, hemp, and milk thistle oils, as well as linseed, saffron milk thistle, rapeseed, and sunflower oils. The oils are cold pressed using a traditional method that imparts a distinctive taste. The farm also provides oil seed flakes, a rich source of protein, fibre, and unsaturated fats.

The newest product in the portfolio of the Eko-Zakątek farm is "Meat-Corner." The nature of Meat-Corner is unique compared to other products offered by the farm, but it also complements them well. A distinct characteristic of the farm is that Eko-Zakątek does not breed animals. Instead, he purchases meat from recognized local farmers, while the rest of the process—such as making sausages, hams, and other products—as well as baking, steaming, or smoking, takes place on the farm. Spices and herbs used in meat processing mostly come from the farm's own fields. These products are complementary because they allow the farm to offer a broader range of products to its customers.

To develop such a business model, the farm had to invest in buildings and constructions, machines and equipment, including vehicles for transporting goods, infrastructure for storing food, as well as renewable energy sources like photovoltaic panels. Nonetheless, these complex investments were based on economic calculations, thanks to the financial competence of the owners. To offer customers even more added value, the farm is considering developing some agritourist products in the future.

The Eko-Zakątek organic farm combines traditional and organic production methods with modern solutions and tools, such as CSA organisational schemes, distribution channels, and communication with stakeholders, including modern internet platforms.

Reasons for Integrating into the Short Food Supply Chain

The initial farm focus was on hazelnut production, but it served as a supplementary economic activity that complemented the household members' non-agricultural pursuits. However, due to external circumstances, Agnieszka and Zbigniew decided to develop their SFSC. Their reasons included: 1) the chance to obtain higher prices for their products and potentially greater revenue and income, 2) diversifying their sources of income, 3) creating additional employment opportunities for family members, 4) eliminating intermediaries between the farm and customers to increase profit margins, and 5) establishing direct contact with consumers to understand their needs better and build relationships. In the early years of Eko-Zakątek farm's involvement in SFSC, these core principles (or strategic directions) helped establish and grow the farm's operations. Currently, Eko-Zakątek continues to strengthen its activities within the short food supply chain.

Value propositions and key activities and

Eko-Zakątek operates a unique business model that offers a distinct value proposition for consumers by providing a diverse range of traditional, organic, and high-added-value food products, moving beyond a simple transactional exchange of goods. This value proposition sets Eko-Zakątek apart from products in long food supply chains, as well as from many products offered by farms that employ a short food supply chain strategy. It includes key products and activities such as the 'Health Basket', an oil factory, a pantry with preserves made from their own raw materials, and the production of cold cuts and meats, each contributing specifically to the overall offering. A more detailed description of each product is below.

Health Basket targets people who care about their daily diet and the diet of their loved ones. The typical customer is someone who values the quality and origin of their food. For 23 weeks (from May to October), once a week, the farm systematically delivers a basket full of seasonal vegetables that come only from Eko-Zakątek farm. The vegetables are picked in the morning, packed in wicker baskets, and delivered to customers' tables the same day. This process eliminates irregular and random orders, as well as intermediaries. Plastic packaging has been completely eliminated. Health Basket is a concept of running a seasonal kitchen at home, preparing food in harmony with nature's rhythm using fresh vegetables available at that time of year. The owners believe that following nature's rhythm offers certain forms of nourishment and may be linked to health benefits. Customers can choose a regular basket covering 23 deliveries during the year (every week from May to October) or a smaller basket, which is half the size of the regular one.

Picture 10 – Health Basket 1

Source: Eko-Zakątek



Oil manufacture (also called Oil corner) is based on own cold-pressing method, that Agnieszka and Zbigniew are constantly developing. Using this cold-pressing process, seeds aren't heated before pressing. The pressed oil always has a temperature below 39°C. The raw material is pressed a single time, and only the extracted oil is bottled, with no additives or preservatives included. Agnieszka and Zbigniew consider this the healthiest and most natural way of obtaining healthy oils that enrich the diet. In this cold-press process, oils are extracted from hazelnuts, sunflowers, flax, rapeseed, camelina, milk thistle, and black cumin. Besides these oils, the farm offers other products connected with hazelnuts e.g. roasted hazelnuts or hazelnuts pasta.

Picture 11 – Health Basket 2
Source: Eko-Zakątek



Picture 12 – Eko-Zakątek Pantry 1
Source: Eko-Zakątek



Eko-Zakątek Pantry celebrates long-standing tradition when every home had a pantry full of supplies, homemade preserves and delicacies from products that were collected and processed during the season. A visit to the Eko-Zakątek Pantry is a sentimental journey to grandma's house, who always had something healthy, tasty and that brought a smile to child face. Each ingredient comes from the farm and farmers guarantee for the quality.

In Meat-Corner the farm buys unprocessed meat from local and trusted farmers. The farm processes its meat on-site, using its own facilities and homegrown spices. Meat products are produced without added nitrites or preservatives and are smoked using alder and cherry wood, which imparts a distinct aroma. Thanks to these old family recipes, the farm shop can offer really unique smoked meat products.

Besides specific products, the Eko-Zakątek also creates value for its customers by providing services like a unique opportunity to purchase the subscription for deliveries of organic seasonal vegetables coming directly and exclusively from the farm, picked a few hours before delivery, and therefore very fresh.

Specific Way the Farm Engages in the Short Food Supply Chain. Customer segments, channels and customer relationships

The Eko-Zakątek farm has evolved over its relatively short existence and in implementing its short food supply chain strategy. The farm started with hazelnuts, but developed a range of vegetables and preserves later. Now, the farm's portfolio includes a large range of products, including even decorative and occasional products, e.g. as events / holiday gifts. Agnieszka and Zbigniew sell their products using many different short food supply chain channels. The idea is to always use such a type of short chain that is well-adapted suits individual customers and products the best. The main channels are:

- basket sales system,
- fairs,
- events and festivals,
- market and bazaar,
- their own retail store,
- online sales,
- direct sales from the farm.

Picture 13 – Eko-Zakątek Pantry 2

Source: Eko- Zakątek



Figure 3 - Business Model Canvas
Source: Eko-Zakątek

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Zielony Targ Association A group of clients – Health Basket recipients Country Targ – a cyclical market in the Tarnowo Podgórze commune – co-founded and organized by Eko-Zakątek	Health Basket – subscription deliveries of organic vegetables Vegetable processing and sale of finished products, Hazelnut cultivation and production of derivative products, Cold-pressed oils	Eko-Zakątek operates a unique business model that provides a distinct value proposition for the consumer by offering a diverse portfolio of traditional, organic and high-value added food products and moving beyond a simple transactional exchange of goods..	Close direct contact with customers, who are both recipients of the baskets and other customers, including those acquired by word of mouth; Mutual trust and long-term relationships are important – some customers have been buying the basket for years; Very active communication via the website, Facebook, Instagram;	Consumers preferring a healthy diet and lifestyle, who regularly take care of the quality and origin of food: 50%; Customers who are struggling with illness or trying to recover from illness, are in the process of convalescence: 30%; Seekers of new flavors and unique products – they can be called “foodies”: 20%.
Key Resources	Cost Structure		Channels	
Own workforce (marriage and hired workers, including seasonal workers), Unique experience and competences gathered over the years, including the way of organizing distribution channels, Strong position in its segments, Technical infrastructure,	Fixed asset costs – machinery, equipment, specialist buildings (e.g. cold stores), delivery vehicles: 60%; Labour costs: 15%; Fuel and energy: 8%; Planting, seedlings, seeds: 5%; Fees for access to fairs and bazaars, including online ones: 2%.		Channels Market, bazaar (weekly rhythm all year round): 60%; Delivery system / baskets (time limit May-October of a given year): 30%; Fairs, festivals, occasional, periodic events: 5%; Direct sales from the farm (deliberate action to optimize working time on the farm): 2%; Own shop: 2%; Online sales: 1%.	
			Revenue Streams	
			Health Basket sales: 45%; Nut and related products sales: 25%; Vegetable, fruit and oil products sales from the farm: 20%; Meat sales: 5%; Subsidies: 5%.	

The interaction between farmers and customers is an important activity. The farmers are in close contact with the buyers of Health baskets (systematic email contact and communication in the social media group). Farmers regularly meet with other customers (especially the long-term ones) during the food markets or food events.

Picture 6 – Eko-Zakątek Pantry

Source: Eko-Zakątek

Picture 14 – Eko-Zakątek Pantry 3

Source: : Eko-Zakątek



Agnieszka and Zbigniew acquire new customers in several ways, e.g. thanks to excellent products, the information spreads among people, and well-developed modern communication channels help reach customers almost any time and anywhere. Additionally, what helps is the farmers' attitude, beliefs, and storytelling skills. As a result of these skills, there is a high level of trust between farmers and customers, and some basket subscribers have been buying the product already for several years. Farmers are intensively using information technologies and communicate with customers, among others, through:

- webpage: <https://www.eko-zakatek.com.pl/>
- Facebook: <https://www.facebook.com/ekokoszykzdrowia#>
- Instagram: https://www.instagram.com/eko_zakatek/

When using a digital communication channel, it is essential to regularly publish posts and content to maintain continuous contact with customers and effectively present and explain the value proposition. It is also worth emphasizing that the farmers often participate in various events. Those events can be small or regular ones, or of a local nature, as well as large nationwide ones, e.g., organized by the Ministry of Agriculture and Rural Development at the National Stadium in Warsaw. Sometimes they also participate in the International Fair in Poznań and other events organised by the National Support Centre for Agriculture. Farmers also take part in various TV programs promoting healthy eating and food products.

Case study 3: Pasięka Gucio (Apiary Gucio)

Honey, apitherapy and a deeply enriching experience

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Country	Poland
Region	Kuyavian–Pomeranian Voivodeship
Farmer	Romuald
Age	54
Gender	Male
Agrarian education	No agrarian education / electrician
Experience in farming	17
Farm Specialization	Beekeeping
No. Household members	6

Description of the region

The Gucio Pasięka farm is located in a small village of Podgórzyn, in the Kuyavian-Pomeranian Voivodeship, in the north-central part of Poland. The village has a population of several hundred people but blends with the neighbouring city of Żnin, with a population of about 14 thousand citizens and is the centre of the Żnin district. The local community stretches over an area of 250 km² and has an urban-rural character. Agricultural land constitutes about 80% of the total area and forests about 6%. The farm is located in Pałuki, a beautiful region with 130 lakes, forests and fields of nectar-rich plants, e.g. rapeseed. The S5 expressway runs right next to the Żnin and goes to Bydgoszcz to the north and to Gniezno to the south and further southwest to Poznań, so it is well connected. In the neighbouring community – Gąsawa – there is a world-famous Lusatian stronghold and settlement in Biskupin. In history the trade, especially in salt and amber, played a significant role in the development of the region, and the inhabitants probably participated in trade connected with the famous "amber route", which led from the Adriatic to the Baltic Sea. Beautiful nature and rich cultural heritage combined with developed infrastructure are important attractions of the Żnin community and makes it a strong tourist attraction. The summers are quite comfortable in the Żnin region, while winters are rather cold, snowy and windy. During the year, the temperature ranges from -4°C to 24°C, rarely falling below 13°C or exceeding 30°C. In summer, daily maximum

temperatures are around 22°C, ranging from 14 to 30°C, and daily minimum temperatures are usually 12°C, ranging from 5 to 18°C. More intense rainfall lasts for a little over 3.5 months, from mid-May to early September. The lowest rainfall is recorded in April. In terms of rain, the average rainfall generally remains quite similar throughout the summer, amounting to around 50 millimetres, usually ranging from 14 to 107 millimetres, with the heaviest rainfall recorded in July on an annual basis. The growing season usually lasts about 175 days and starts around April 25 and ends around mid-October. Agricultural production mostly consists of the cultivation of cereals (mainly wheat, barley), sugar beets and potatoes. The animal production in the region is typically focus on pigs and poultry. The average farm has an area of about 20 ha, which is higher than the average in the country.

Farm history, resources, technology and production of the farm

The Gucio apiary is run by Romuald and his wife Beata, supported by their children. The Gucio apiary is a multi-generational apiary with a history spanning more than 80 years. The first 19 Warsaw-type hives were bought by Romuald's father in 1951. In the following years, the apiary had between 20-40 hives. Romuald was not immediately convinced to follow in his father's footsteps, but in his later teenage years he became interested in beekeeping, and this interest later became his passion. Together with Beata, they first bought 10 hives, two of which unfortunately did not survive, but the remaining eight performed well and this later became an incentive to further develop the apiary. At the moment, it has 79 bee hives. The farm itself is placed on 2 hectares of land, which are used as permanent grassland and intended for plants dedicated to pollinating insects. The farm is shown in the pictures (Picture 15 and 16).

Picture 15 - Pasieka (Apiary) Gucio 1

Source: Pasieka Gucio



Picture 16 - Pasięka (Apiary) Gucio 2
Source: Pasięka Gucio



The farm is well managed, and when making decisions, the farming family uses its competence, experience and social capital gained in other areas. Romuald is a member of the Polish Beekeeping Association and Beata is a member of the Rural Housewives' Association. Romuald often reads the industry magazine "Pasięka" to follow the latest trends in the industry. The farming family is constantly testing new, interesting and innovative ideas to differentiate the farm from other apiary farms. There are many other apiary farms in the region and competing each other. The farmer perceives following resources as the most critical to keep the current business model: 1) own (the owner and his wife) labour resources, skill and competencies; 2) unique experience and competences gathered over the years; 3) a special breed of honey bee

Buckfast bee (domestic crossbreed of *Apis mellifera* subsp.), which is an advanced crossbreed of seven European and African bee breeds and which has numerous advantages, such as high honey and pollen yield, gentleness, resistance to diseases and good wintering; 4) technical infrastructure and well-organised production processes; 5) financial resources.

These key resources are accompanied by conscious agro technical decisions related to crops that are directly dedicated to bees. It is also worth emphasizing that in order to obtain rare honey (dandelion, acacia, buckwheat), the farmer transports the bees to multiple different locations. This is an activity that requires good planning and coordination both in terms of the seasonal schedule of placing the hives in the specific locality and the organization of work at the time of honey harvesting. These important skills and competencies allow to the Pasięka Gucio to offer divers portfolio of products and services.

Gucio Apiary is a specialised production unit focused only on the honey and honey-derived products. This specialization is a conscious strategy in response to the intense competition in the honey market in Poland and its surroundings. The apiary utilizes its potential to almost its fullest extent (apiaries with up to 80 bee hives are subject to simplified administrative regulations), therefore, further development is basically linked to the quality and diversity of its supply. These conditions led Pasięka Gucio to focus on high-quality honey and related products, which can be sold at a higher price than those available in supermarkets. Acquiring and retaining customers remains a key challenge, but this is made easier by having a wide range of products.

The farms portfolio of products consists of different types of honey and honey-derived products – bee bread, bee pollen, propolis (Picture 17, 18 and 19). When it comes to the honey offer, it is worth emphasizing that it is really exceptionally rich - the apiary has honeys on sale almost at any time: 1) acacia (light, mild honey that remains in liquid form for a long time); 2) phacelia (light honey with an interesting, slightly herbal aroma); 3) buckwheat (with a characteristic dark colour and intense taste); 4) tilia (exceptional in taste and aroma, which is

Picture 17 – Products offered by the Pasięki (Apiary) Gucio

Source: Pasięka Gucio.



perfectly associated with the scent of a blooming tilia tree in the summer); 5) dandelion (a unique and rare type of honey, which is the fruit of the work of bees on early spring dandelion flowers); 6) rapeseed (characteristic, creamy and delicate honey, very popular due to the large rapeseed crops in Poland); 7) honeydew (made from honeydew collected by bees, not from flower nectar) and 8) multifloral (a fusion of flavours and aromas).

Pasieka Gucio also offers honey-derived products, such as bee pollen, bee bread and propolis, as well as multi-flower honeys with additives, including honey with bee bread, bee pollen, raspberries or lemon and ginger. Bee pollen is collected by bees during flights to flowers, then transported to the hive and stored in the cells of the comb. It has the form of colourful loose balls and is a kind of reserve in the comb – young or adult bees can reach it for food. From a human perspective, it is valuable because it contains vitamins, minerals and protein, and also has antibacterial, antifungal, anti-inflammatory, antioxidant and anticancer effects.

Bee bread is produced as a result of the collection and processing of flower pollen by bees. It is a rich source of protein, contains many vitamins and minerals, fatty acids, digestive enzymes. Propolis is a viscous substance produced by bees from plant resin and, as the name suggests, bees use it to protect and seal the hive from external factors (microorganisms that threaten their health and life). It is a valuable natural product for humans, because it has anti-inflammatory and antibacterial effects, supports the body in fighting infections, supports the immune system and soothes inflammation and accelerates wound healing processes.

Picture 18 - Other products offered by Pasieka (Apiary) Gucio – Bee pollen (left), Propolis (right)
Source: Pasieka Gucio



Another interesting product is the so-called multi-flower creamed honey. It can be a feast for the palate, combining the richness of flavours and aromas of various flowers from which bees collect nectar. The creaming process makes the honey exceptionally velvety and easy to spread, making it an ideal addition to everyday meals. This honey is characterized by a delicate, floral flavour with a subtle fruity note. All of the honey products listed are characterized by a beneficial effect on the human body. Gucio Apiry has well recognized this potential and meets

the diverse needs and preferences of consumers, providing the market with a wide range of products.

Picture 19 – Products offered by the Pasieki (Apiary) Gucio - Acacia honey(left), Dandelion honey(middle), Honey with lemon & ginger(right)

Source: Pasieka Gucio.



In addition, the Gucio apiary offers its customers a unique opportunity to experience beehive-therapy / apitherapy (Picture 5). This rare service is completely free for the apiary's customers and enjoys interest, although the popularity of this form of apitherapy in Poland is currently low. On the farm there is a wooden house where the client can lie down and enjoy the warm air, the smell of honey and propolis, micro-vibrations and acoustic effects and the biofield generated by bees, whose hives are mounted just under the bench and suitably secured. Treatment in the beehive-therapy house has relaxing and therapeutic applications. According to various studies, this form of apitherapy allows for the treatment of various ailments such as: diseases of the cardiovascular, respiratory, movement, nervous systems, diseases resulting from reduced immunity, metabolic and hormonal diseases, as well as psycho-emotional diseases.

The proof of the interesting and rich offer at the Gucio Apiary is the award the apiary received in 2018, i.e. the Cup of the Chairman of the City Council in Żnin for the most interesting beekeeping offer presented at the XXII Pałuki Agricultural Fair (25-26.08.2018). Producing the portfolio of products is time-consuming and also requires work in challenging working conditions. Thus, the farm is keen to develop its technical infrastructure, machines and devices, and in recent years has also increased investments in renewable energy sources (photovoltaic panels and a heat pump). As the owner says, beekeeping is a pleasant and rewarding occupation, although of course it also involves many challenges. But the fact that the owners plan to buy more land and invest in infrastructure for honey production (including a honey extractor) is a manifestation of the desire to develop the farm.

Reasons for integrating in the Short Food Supply Chain

Honey is available at a cheap price of around PLN 20-25 (USD 5,5-7) for a large jar (about 1 kg or 1 litre) in large-scale stores (e.g. supermarkets, where many consumers do their regular shopping) in Poland. This honey is often made as a mixture of honey from the EU countries and non-EU countries. There isn't often obligation to comply with strict sanitary or veterinary standards in non-EU countries as the EU imposes on its beekeepers. This is a very challenging benchmark for Polish honey producers, especially on those emphasising the high quality of honey. Those honey producers cannot compete in terms of price with a large non-EU producers and importers. It is worth adding that honey wholesale buyers operate in EU countries, but they offer very low prices to honey producers. It is usually in the range of PLN 10-20 (USD 2,8-5,6) per 1 kg of honey (this price applies to a high-quality honey). In this context, it is worth emphasizing that in Poland there are many apiaries. The honey market is highly fragmented and highly competitive, and one beekeeper has no influence on prices.

Picture 20 - Beehive-therapy house in Pasieka (Apiary) Gucio

Source: Pasieka Gucio



Honey has a long historical tradition to be sold directly from the farmer to the consumer. This form of sale fits the product of honey very well, even between the apiary and its nearest neighbours. Most consumers have probably bought or received honey directly from a

beekeeper at least once. Selling honey through a long chain is also possible and usually takes the form of honey being delivered by the farmer to a collection point, but at a low price, which often does not even cover the production costs. For this reason, it is very common practice that beekeepers participate in short supply chains, mainly implementing direct sales strategy. From the perspective of Pasięka Gucio, integration in short food chains resulted from several reasons:

customer interest in high-quality honey from a trusted beekeeper, not from an industrial apiary that is impossible to recognize,

consumers searching for a wide range of honeys and related products, the availability of which in large-scale stores is usually very limited (usually 1 type of honey),

the possibility of obtaining a higher price for honey, and therefore higher revenues and income, even taking into account higher production costs,

the possibility of involving family members in the apiary's activities.

Specific Way the Farm Engages in the Short Food Supply Chain: Customer segments, channels and customer relationships

As already mentioned in this case study, honey is a product that was always been sold directly from farmer. Pasięka Gucio also applies direct sale from farms and the customers are usually the members of broader family, friends, neighbours or tourists. Nonetheless, the direct sale from the farm was not able to ensure the sale of the entire production of the farm. Therefore, the Gucio Apiary has also developed other distributional channels for its honey. Pasięka Gucio also started the system of deliveries directly to consumer households (or to groups of consumers). Besides direct sale and deliveries, the Pasięka Gucio also sells a significant share of its honey during fairs, festivals, and various social events. While selling and distributing honey and its various other products, Pasięka Gucio also uses the support of relatives from a broader family who live in large cities (Warsaw, Poznań) or even in smaller district cities. There are much larger markets and more potential consumers with higher buying power in these cities when compare to villages and towns near Pasięka Gucio farm. Therefore, the farm benefits from an exposure to larger markets. Last but not least, the farm promotes and sells its products through modern marketing channels such as the "Wiejska e-skrzynka" ("village e-foodbox") and "Polski e-bazarek" ("Polish e-bazaar") platforms.

When it comes to promotional activities, the word-of-mouth marketing and recommendations from satisfied customers are still very important. Nonetheless, Pasięka Gucio often advertises its products at fairs, festivals and events, in traditional media such as radio and currently also via social media such as Facebook, through profiles on various websites. The Gucio Apiary therefore communicates, among others, through:

Facebook: https://www.facebook.com/PasiękaGucioPodgorzyn?locale=pl_PL

Village e-foodbox: <https://wiejskaeskrzynka.pl/Pasieka-Gucio>

Polish e-bazaar: <https://polskiebazarek.pl/author/romualdrabkowski/>

Especially "Polish e-bazaar" and the "Rural e-foodbox" are new electronic marketing channels that are shortening the distance between farmers and consumers. The "Polish e-bazaar" platform allows agricultural producers to post offers of products produced on farms free of charge. This initiative aims to facilitate the sale and purchase of products from local producers, promotes short supply chains and supports agricultural producers in selling both unprocessed and processed products. The Polish e-bazaar platform operates under the patronage of the Ministry of Agriculture and Rural Development. The organisation of the initiative is carried out by the provincial Agricultural Advisory Centres, so it has a nationwide dimension and customer can find a very wide range of agriculture-related products and services in Poland. The "Rural e-foodbox" is an innovative idea and it is a shopping platform (not a store) intended for direct contact between consumers and many producers at once. It is not a typical e-shop that markets products and looks for buyers. The e-foodbox responds to the needs and interest of consumers in high-quality local food. The platform was created with the participation of European union funds as a result of a larger project entitled "Innovative model of cooperation of agricultural producers within short supply chains". The initiator was the Kujawsko-Pomorskie Agricultural Advisory Centre in Minikowo, an institution providing support to farmers. The aim of this project was to shorten the food supply chains from farms and directly reach final consumers. An important aspect of this initiative is the idea of collective action to reach effects of synergy and scale to provide benefits to both farmers and consumers. Currently, the e-foodbox integrates together 22 farms, and one of them is Pasieka Guccio. The e-foodbox provides a diverse assortment and the consumer can buy various food products e.g. the honey from Pasieka Guccio, vegetable, fresh and processed fruit, dairy products, eggs, raw and processed meat (hams, sausages), various atypical grains, homemade cakes, mustards, herbs, mushrooms, and even lavender products. The e-foodbox provides customers with the opportunity to create special purchasing groups. This brings together people with a similar attitude to nutrition and expectations towards food products. The Village e-foodbox is becoming important platform connecting the farmer with the consumer without intermediaries and providing easy access to a wide range of products with a guarantee of quality and high production standards (based on product tests) and favourable prices for high-quality products.

After years of operating in short food supply chains, Pasieka Guccio has gained positive experience with this type of marketing strategy and wants to even more intensively use it for its growth and development.

Figure 4 – Business Model Canvas

Source: Authors construct based on data from the interview with farmer and its family

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Polish Beekeeping Association,	Beekeeping Honey production (a very wide range of types) Honey production with additives (fruits, herbs, propolis) Production of numerous honey-derived products – bee bread, bee pollen, propolis	Pasieka Gucio offers its customers unique and high quality products and experience that goes beyond honey as a commodity.	Direct contact with customers visiting farm – neighbours, relatives, tourist as well as other customers	Customers interested in high quality honey and unique honey products
Village e-foodbox platform,	Marketing and sales activities For customers of the Pasieka (Apiary) Gucio – a house for beehive-therapy.		Virtual contact and interaction with customers from cities - communication via websites, industry portals and Facebook.	Customers buying pollen, bee bread and propolis – consumers more aware of their health-promoting properties, people who are ill or use prophylaxis in the autumn-winter period.
Polish e-bazaar platform,	Key Resources Own labour resources (the owner and his wife), Unique experiences and skills gathered over the years A special breed of bee (Buckfast)	Farm provides a wide assortment of honey and related products, as well as a unique opportunity to take advantage of beehive-therapy.	Channels Fairs, festivals, events: 60%; Direct sales: 30%; Delivery to consumer households: 10%.	Customers from the region
Rural Housewives' Association	Technical infrastructure Financial resources.		Word-of-mouth Traditional and social media New types of electronic platforms Network of personal contacts	Customers from cities
Cost Structure			Revenue Streams	
Fuel and energy expenses, Sugar purchases, Jars and caps, Queen bees, Frames, bodies, Veterinarian, Work clothes and other variable expenses, Fees for access to markets and bazaars.			Honey sales: 82%; Pollen, bee bread and propolis sales: 15%; Subsidies and other support: 3%.	

Case study 4: Farm Nelepeč

Environmentally friendly production and animal welfare

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Country	Czech Republic
Region	South Moravia
Farmer	Veronika
Age	33
Gender	female
Education	University /masters
Experience	16 years
Specialisation	Milk, organic farming
No. of family members	6

Description of the region

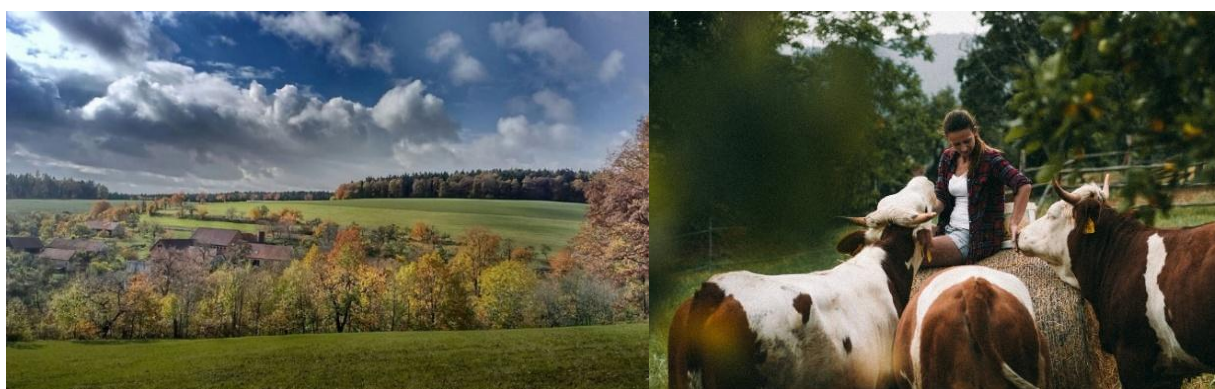
The farm lies near the town of Tišnov, in the Brno-venkov district. This area has a mild climate with four distinct seasons. The average daily temperature in this region is 10°C, and the average annual rainfall is 600 mm. The landscape in this area is hilly, but the soil is fertile and well-drained, making it suitable for a variety of crops. Tišnov, with a population of 9,000, blends its agricultural heritage with developing industrial and tourism sectors. Traditionally, farmers here cultivate crops such as wheat, barley, and potatoes and raise livestock. Tourism also plays a significant role in this area, attracting visitors with its natural beauty and historical monuments. Spa resorts and wellness centres occur in this region. Overall, the Tišnov area is a diverse and economically developed region. The area is part of the South Moravian Region, which is one of the most economically developed regions in the Czech Republic. The region has a well-developed transport infrastructure that facilitates the movement of goods and people in and out of the region. It is a good place to live and work, with much to offer visitors. Brno, the second largest city in the Czech Republic, is only 30 km from the farm. Brno is a large food market with a high purchasing power among its residents, and it also attracts tourists to the Tišnov region for recreation and excursions.

Farm history, resources, technology and production of the farm

Just like other farmers in the Czech Republic, the family also experienced nationalisation of their property in the post-war period. At the end of 1948, Nelepeč got its own unified agricultural cooperative. The family's newly purchased tractor got nationalised in 1951. The farm had to pay rent for other machinery it owned. In 1957, the farm joined the cooperative, and its assets, including livestock and fields, were confiscated. From then until the revolution in 1989, the farm was state-owned. Since 1991, the farm in Nelepeč has been back in the Kropáček family's possession. The family regained its previously nationalised property. In the same year, the family transitioned to organic farming (it was among the first three farms in transition in the Czech Republic after the revolution), and the farm has remained organic to this day. Initially, the family farmed with only four cattle, but they gradually expanded their herd, enabling them to resume farming and continue their 17th-century agricultural tradition.

Picture 21 – Nelepeč Farm

Source: Farm website



In the 1990s, it was a logical intention for the farming family to expand the farm's area to ensure sufficient feed for the livestock. Currently, the farm manages approximately 90 hectares of land (40 hectares of arable land and 50 hectares of pasture for cattle). The crop structure on the arable land consists of cereals, potatoes, and green manure crops. The needs of livestock production predominantly determine this structure. The farm also cultivates 2 hectares of orchards and 2.5 hectares of forest, including fruit from its own orchards as part of its production range.

The farm's animal production focuses on milk, which is the main economic activity. The farm breeds Czech Fleckvieh cattle, which is a traditional Czech breed. Czech Fleckvieh cattle have several desirable traits, including high milk yield and higher protein and fat content (4.5% or more). Currently, the herd consists of around 60 cattle (30 dairy cows and 20 heifers). The farm uses a "closed herd" or "closed group" system, meaning the animals stay in a closed, isolated environment with no new animals brought in from outside. All animals in the herd are born and raised in this closed environment and remain there until they die through natural death or slaughtering. In the 1990s, the average annual milk yield per cow on this farm was around

3,000 litres. However, over time, milk production increased, and even today, careful breeding and husbandry practices (including heifer selection) aim to achieve higher yields while emphasising animal welfare. Cow productivity could be even higher, but a deliberately slow herd-replacement process is underway, and some cows are older than 10-14 years. Currently, the average herd milk production is 350-400 litres per day. In recent years, the total annual milk production has reached approximately 150,000 litres. Cows get milked twice a day (morning and evening). There are plans to introduce a milking robot. Meat income from selling calves is only a supplementary activity. Another secondary source of income comes from services (especially in crop production) provided by the Nelepeč farm to other farms that often lack modern technological equipment. The whole family is involved in the activities (work) on the farm. The farmer's father, with the help of her younger brother, takes care of crop production, including mowing and drying meadows, silage production, and hay and straw baling. The mother oversees milking and calf care. For the last four years, the farmer has focused on processing farm products, and two workers help her in the farm's dairy. During the peak season, the family also occasionally employs temporary workers who help in the fields.

Reasons for Integrating in the Short Food Supply Chain

Changes in the milk commodity value chain in the Czech Republic forced the Nelepeč farm to make changes. Significant challenges included recurring drops in milk prices, the weak negotiating position of such a small farm in the milk value chain, and the low interest of industrial dairies in organically certified milk. Organic milk went to a dairy in the region; however, the price it received was the same as for conventional milk. For example, in 2009, milk prices on the Czech market fell significantly. Although changing customers is not usually flexible in the dairy industry (due to long-term contracts), the Nelepeč farm was able to switch to another dairy in the region. As a result of this certification, the Nelepeč farm even received a price premium for its organic milk, helping stabilise the farm's economic situation. Unfortunately, after a change in the management of this dairy, it reduced this price premium per litre of organic milk. In the following years, the selling prices of organic milk from Nelepeč returned to levels comparable to those of conventional farms despite meeting all the requirements for organic milk certification, and the milk having excellent purity and an above-average fat content (around 4.5%). These facts forced the farm to re-evaluate its strategy and seek alternative development paths, especially regarding the selling of milk, its main product.

During this period, the farmer completed her university education and became more involved in the daily operation of the farm, including its management. Already in her diploma thesis, she posed the question of the future development of the family farm with a focus on on-farm milk processing. She initiated the establishment of a farm dairy to process farm milk. This mini-dairy began processing milk and producing fresh cheese, curd, yoghurt, yoghurt drinks, etc. The farmer managed to create a stable customer base for these products.

Specific Way the Farm Engages in the Short Food Supply Chain

She established the farm dairy in 2019. With this step, the farmer began to realise the entrepreneurial idea of producing regional dairy products. This step enabled the farm to gain more value from the milk it produced than it did when supplying milk to dairies. The farmer summarises it this way: *“At home, we often talked about how it would be best to process milk directly on the farm and produce and sell our own products rather than just selling the milk to a dairy. The way to move the family farm ‘further’ in our case was to become a dairy farm. When promoting our products and communicating with customers, we emphasise that we are an organic farm and do not use any industrial fertilisers or plant protection products in the fields, distinguishing us from many other farms and foods typically offered, for example, in supermarkets.”*

The value proposition of the Nelepeč farm is high-quality, uniquely flavoured dairy products, made from milk produced on a farm practising environmentally friendly production methods and ensuring outstanding animal welfare.

This value proposition is attractive to several individual customer segments who buy food from this farm and prefer it to other market alternatives. The value proposition solves the customer’s problem and satisfies their need (desire for a unique product) and is an aggregation or package of benefits that the farm offers to customers.

The farm dairy produces pasteurised milk, various-flavoured fresh cheeses, grilled cheeses, yoghurts, yoghurt drinks, curd cheese, curd desserts, and a caramel yoghurt dessert. The range is broad, but the farmer still tries to vary it to keep it interesting for customers and ensure the offer remains diverse and doesn’t become boring. For example, the farmer is currently pursuing the implementation of technology to produce hard, mature cheeses. Production at the dairy always starts on Mondays so that a fresh batch of dairy products is ready every week. An unusual speciality is cheesecakes and platters, for which the farmer is very creative. “Our fresh cheeses, yoghurt drink, grilling cheese, and chocolate curd dessert have received the Brno Region Original Product award.” Her products regularly win awards at regional product competitions. In 2022, the farmer’s special yoghurt dessert with salted caramel and chocolate, called “Tučibomba,” received the Regional Food of the South Moravian Region award, and the spreadable cheese balls won the Golden Taste of South Moravia award. For its innovativeness, Ekofarma Nelepeč ranked among the top five in the Association of Private Farming of the Czech Republic’s Farm of the Year 2022 competition.

The farmer sells her farm products in various ways. Customers can buy her products directly at the farm, at farmers’ markets, and a small portion of the production is also supplied to smaller shops in the region and to restaurants. Due to the farm dairy facility’s registration under Czech regulations, she can sell up to 35% of her production off the farm. She also collaborates with a smaller shop in Tišnov, where she has her own refrigerator with products.

Part of the production also goes to a farmers' shop run by another female farmer from the agricultural association. Veronika praises her membership in the Association of Private Farming, which has enabled her to collaborate with colleagues and participate in national events. However, customers can also visit her farm directly.

The customer base is split into several distinct segments, with the largest being Environmentally Conscious Mothers (30%), who are highly motivated by health and local/organic food for their children and often visit in groups linked to forest educational programs, and Middle-Aged People with Empty Nests (30%), who are financially stable, less price-sensitive, and prioritise spending on health, personal interests, and quality products after their children become independent. Other significant segments include Young Couples Who Go on Trips (10%) seeking products aligned with an active, health-conscious, and ethical lifestyle; Nuns (10%) living nearby; and Senior Citizens (5%) who travel from places like Brno to buy basic items like milk and curd cheese, driven by nostalgia for the full-fat, traditional taste of the farmer's products. The remaining 15% includes sales to a restaurant for a speciality sour cream/yoghurt product and to other local partner shops.

Picture 22 – Mini-dairy at Nelepeč farm

Source: Farm website



The value proposition is communicated to the customer 1) through direct contact between the customer and the farmer and her family when the customer arrives at the farm to buy a product in the self-service shop, 2) the farmer also relies on mass forms of marketing (website, television and radio interviews, cooking shows) and social media (Facebook). In this farm's value proposition, it is important to communicate not only the product itself but also its manufacturing. Approximately 40% of the raw milk gets processed in the farm's mini-dairy (a), and the remaining approximately 60% goes to a local dairy located approximately 35 km from the farm. The dairy collects the milk daily, buying it as conventional milk and not paying any premium for organic quality. As the farmer states: *"Now I'm not too keen on processing all the milk produced on the farm on the farm itself, although I think I would be able to sell the processed products from our farm. But I have a child now, and as soon as the child is sick, it's a problem. Or if I were sick or one of the two girls I employ in our on-farm dairy. We wouldn't have anywhere to put the milk then. So I still keep selling to the dairy as a kind of insurance, so that if something happens, or if we want to go on vacation, we can stop producing in our farm dairy."* About 70% of the products made from the 40% milk reach customers through the farm's self-service shop. The reason for choosing a self-service shop was that customers can arrive at different times, and the farmer does not always have to be present on the farm. The arrival of a customer also meant that the farmer had to leave her work and attend to the customer. With the implementation of the self-service shop, the farmer can decide whether to attend to customers personally. Thus, the farmer or other family members remain in contact with customers and can communicate the value proposition to them or even show them the farm and the conditions of the dairy facilities.

Picture 23 – Self-service shop at Nelepeč farm
Source: Farm website



Interestingly, not all processed dairy products from the farm are necessarily labelled with the organic mark and sold under this brand. The reason is the presence of other added products (e.g., dried tomatoes or spices) that are not always organically certified, so the final product is not certifiable as organic under the legislation. Nevertheless, the farmer includes a note on the packaging stating that the product was made from organic milk and communicates this to

customers. If she were in a long food supply chain, she would not be able to present the products to customers and explain their value in this way. As the farmer states, *“I don’t think customers look at the organic label that much. It seems to me that it’s enough for them to walk around here, pet the cows, or see them grazing in the meadow, and they don’t care if the cheese has certification.”* For the rest of the customers, whom the farmer or her family do not meet personally, they must rely on communication through mass forms of marketing, social media, and references. As the farmer says, “I give a lot of interviews, and they then spread widely. For example, when the Herbář (TV show) aired, people called me even from Prague asking where they could buy my products, and my email was full. Or when we were on the show Kluci v akci (culinary show), it wasn’t like when Herbář was on, but even so, there were a lot of people in the yard saying they were coming for curd cheese because they saw it on TV. So that also works, but you have to, for example, win a regional food award with the product to get into such a show. I also cooperate with the local action group Brána Vysočiny, which is one of these local action groups. And they make promotional materials, they made a map of producers, but there are so many of these maps now that I think people must get lost in them because everyone wants to make their own map. And then I don’t even know which maps we are in or not.”

As the farmer further pointed out, the shop they supplied in Tišnov closed, but despite closing two of their three shops, sales generated through the small shop are doing incredibly well. So now we only supply to one small shop in Tišnov, where we have relatives. I also give a little to a friend who has a bakery and bakes cakes, so I give her some of my products to diversify her sales. We also used to deliver to the shop at the Ráječek farm. We have also almost stopped doing that because we really sell most of the products ourselves, and we actually sell them at full price. So it’s absolutely best to sell it yourself. A lot of people also write to me on social media asking where to find my products in Brno. I wouldn’t want to withdraw from them altogether. The offer is also related to our milk production. With several dry cows in the herd, there is less milk available now. But when they start milking again, there will be more, so maybe we will return to those other shops.

A critical success factor for short supply chain sales is to (constantly) innovate the product and differentiate the product portfolio compared to conventional dairy products available in retail chains or on other farms producing dairy products. In addition to traditional marketing tools, social networks (Facebook and Instagram) have become an essential channel for customer communication. The farm is also part of an association and maintains contact with other producers and other stakeholders.

Figure 5 – Business model Canvas
Source: Author

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Municipality of Nelepeč-Žernůvka LAG Brána Vysočiny Association of Farmers Local Government - South Moravian Region Ministry of Agriculture of the Czech Republic	Production of milk that is differentiated Farm processing of milk into farm-made products Farm promotion and product sales	Farma Nelepeč offers high-quality, interesting processed dairy products with a unique taste, made from milk from a farm that practices environmentally friendly production processes and pays close attention to animal welfare.	Farmer does not create a specific sales strategy for each customer segment Direct contact when customers shop at the farm Interaction on social media Currently focused on customer retention	Environmentally minded mothers (30%) Middle-aged empty-nesters (30%) Young couples on vacation (10%) Nuns living nearby (10%) Retirees (5%) Others (15%)
	Key Resources Physical resources of the farm Farm milk processing facility Human resources (family labour, external employees) The farmer and her know-how and invention Financial resources		Channels Milk sales to the dairy (60% milk) Farm processing and sales (40% milk), of which: Self-service shop on the farm (60% processed products), Shop in Tišnov (20% processed products), Restaurant (10%), Shop of another local farm (5%), Shop of a local pastry chef (5%) Communication with customers Direct contact between the customer and the farmer and her family Social networks (Facebook) Mass forms of marketing (website, media interviews, presentations during cooking shows).	

Cost Structure

Cost of production of milk (below industry benchmark), Cost of operating farm dairies, Cost of operating sales channels and customer relations, Cost structure consistent with a value-driven firm, Economies of scale vs. economies of scope

Revenue Streams

Sale of milk to the dairy (60% of milk production), Sale of processed products in a self-service store (60%), Sale of processed products in a store in Tišnov (20%), Sale of processed products in a restaurant (10%), The sale of processed products through a local pastry shop. Sale of processed products through other farms, sale of calves and other products, and field production services
Operational agricultural subsidies

Case study 5: Adámek Family Winery

Wine with character

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Country	Czechia
Region	South Moravia
Farmer	Václav
Age	50
Gender	male
Agrarian education	No agrarian education
Experience in farming	29
Farm Specialisation	Winemaking and viticulture
No. Household members	6

Description of the region:

The headquarters of Adámek Family Winery lies in the Znojmo region. The Znojmo wine sub-region is one of the four wine-growing sub-regions of Moravia. As of 31 December 2023, the Znojmo sub-region consists of 90 wine-growing municipalities, 218 vineyard tracks, 850 growers, and approximately 3,143 hectares of planted vineyards.

Overall, the Moravia wine region includes 17,025 hectares of vineyards (representing about 96% of the registered vineyard area in the Czech Republic). It is the largest wine-growing region in the Czech Republic and is known for its high-quality wines, especially white wines. The Moravia wine region contains 308 wine-growing municipalities and 1,142 vineyard tracks, cultivated by nearly 13,894 growers.

Picture 24 - Adámek Family Winery
Source: Winery website



Adámek Family Winery lies in the wine-growing village of Višňové, with 45.8 ha suitable for vineyards, but only 12.4 ha planted. There are seven registered growers in the village, with two vineyard tracks located here:

1) **Nová hora** – This is a category one vineyard track with a total area of 32.1 ha, of which 12.4 ha are vineyards. The elevation ranges from 280 to 334 m; the average slope is 5%, the average annual temperature is 8.8 °C, and the sum of active temperatures is 2,810 °C. The geological origin of this vineyard track consists of crystalline schists with shallow weathering layers of the Bohemian Massif, and sandy-loam soil with a stony skeleton.

2) **Pod starou cihelnou** – This is a reserve vineyard track with a total area of 13.7 ha, with no vineyards currently planted there.

The most commonly grown white varieties in the wine-growing village of Višňové include: Sauvignon, Pálava, Chardonnay, Grüner Veltliner, Pinot Gris, Müller Thurgau, Neuburger, Moravian Muscat, Riesling, and Pinot Blanc. Red varieties consist of Saint Laurent and Pinot Noir.

In addition to Adámek Family Winery, another notable winery in the village is the winery of Ing. Antonín Saleta.

Picture 25 – Products of Adámek Family Winery
Source: Winery website

Farm history, resources, technology and production of the farm

Adámek Family Winery lies in the wine-growing village of Višňové in the Znojmo sub-region. It



follows a family tradition, as the founder was producing wine even before 1989. What began as a hobby gradually became a stable business. At a time when other local winemakers were reducing their activities, demand for wine from the family cellar increased, and production reached roughly 2,000 litres per year. After 1989, the family received an offer to expand sales through a wine shop in Prague, which initiated systematic business development.

In 1996, the father and two sons began to develop production fully, and, with rising demand, they invested in the first tank hall. In 1997, they produced 80,000 litres of wine, mostly from purchased grapes, and planted their first own vineyard of 2.5 ha. Production remained stable until 2000, with a focus mainly on cask wines and lower costs. However, after the founder's departure in 2001, output stagnated. In 2002, they added a new hall, and from 2003, the winery also began producing bottled wines, at about 7,000 bottles per year.

Significant development occurred in 2008, when Tomáš Vican joined the winery. He brought capital and marketing expertise; they established a limited liability company, built a third tank, and equipped it with modern technology, including stainless-steel tanks, a pneumatic press,

and high-quality filters. These investments enabled increased production of bottled wines to 20–23 thousand bottles and expanded overall production capacity.

In 2009, the winery also focused on agritourism and opened the Bobule guesthouse with a capacity of 36 beds. Thanks to its connection with the film *Bobule*, the guesthouse became a notable feature of wine tourism, supporting tastings and direct sales, and helping build a stable customer base that uses the year-round wine delivery service across the Czech Republic.

By 2019, production reached roughly 30,000 bottles and 190,000 litres of cask wine. In 2020, the winery bought out Tomáš Vican's share, consolidated ownership, and continued investing in technology. Today, annual production reaches up to 200,000 litres, and the business operates two guesthouses with a total capacity of 50 beds.

Over the years, the winery has also expanded its own vineyards — by 2 ha in 2013 and by 0.5 ha in 2018 — yet the primary source of grapes remains long-term cooperation with external suppliers, who provide approximately 90% of the processed volume. These relationships grew from a personal approach, and any supply shortfalls tend to stem from vineyard sales rather than partner unreliability; the main risk is the loss of a high-quality vineyard site.

Picture 26 – Guesthouse Bobule
Source: Winery website



The winery's assortment consists mainly of white wines, while red wines account for approximately 15%. The main products include Pinot Blanc, Grüner Veltliner, Pinot Gris, and Rosé. The winery manages 5 ha of vineyards with around 14 varieties, such as Müller Thurgau, Sauvignon, Aurelius, Pinot Gris, Riesling, Pálava, Neuburger, and Saint Laurent. The production is based on gentle grape processing to minimise the need for chemical interventions. Harvest ideally takes place at lower temperatures; otherwise, the grapes get treated with sulfur dioxide or dry ice. After destemming, the grapes are pressed in a pneumatic press at controlled pressure (yield 73–75%), cooled to approximately 5 °C, and settled. Fermentation takes place at a controlled temperature of 15–16 °C with selected yeasts suited to each variety. After fermentation, the wine is racked off the lees, optionally clarified and filtered, then matured to harmonise its sensory properties, and finally bottled.

The winery and guesthouses rely on family labour. The family handles most tasks in the vineyards, the cellar, and the guesthouses. Seasonal workers, mainly retired women, help during busy periods, and more external workers get involved during harvest. The winery also has experience with company-organised harvests as team-building events. Overall, it builds its activities on a personal approach to customers, authenticity of wines, and direct sales through short supply chains. In the future, it plans to increase the share of bottled wines, as they offer higher added value, and sees the rising import of cheap foreign wine as the main risk.

Picture 27 – Adámek Family Winery technology
Source: Winery website



Reasons for Integrating into the Short Food Supply Chain

Adámek Family Winery has engaged in short supply chains primarily for economic, commercial, and strategic reasons. Direct sales enable higher added value than selling through intermediaries, while also ensuring the business's financial stability through regular sales to a loyal customer base. This sales model proved effective, especially during the Covid-19 pandemic, when direct wine delivery helped maintain sales despite restrictions on normal operations. In-house distribution also reduces marketing and logistics costs, as wine deliveries are organised directly by the owner without the need for external services.

A key factor in participating in short supply chains is direct, personal contact with customers. This sales method strengthens trust and loyalty, allows quick responses to individual customer needs, and enables immediate handling of potential complaints. Customers appreciate the personal approach, quality service, and family atmosphere, which leads to long-term relationships and frequent recommendations to new clients.

Short supply chains are also an important marketing tool for the winery. Direct customer contact, tastings, and experiential wine tourism contribute to brand building and promote wine as an authentic regional product. Linking sales with accommodation and experience-based services expands the winery's range and increases sales volumes.

From a logistical perspective, the winery's own wine delivery across the Czech Republic provides an efficient distribution method and ensures sales even outside the primary season. Strategically, short supply chains support the winery's independence, help preserve the traditional character of a family business, and strengthen the emphasis on the quality and origin of Moravian wine. At the same time, they offer a way to counter the pressure of cheap imported wines and maintain a stable market position.

Specific Way the Farm Engages in the Short Food Supply Chain: Customer segments, channels and customer relationships

Adámek Family Winery operates within a short supply chain mainly through direct customer contact, personal sales, and wine delivery. Its customer base is diverse. It includes families with children who seek accommodation in guesthouses and use the available facilities, but even more critical are larger groups without children, especially company teams, sports clubs, firefighters, or municipal offices. These groups usually stay for a shorter period, but their wine consumption during their stay is high.

A significant part of the clientele consists of guesthouse visitors who often return and with whom the owner builds personal relationships. These customers are interested in tastings, usually stay for two to three days, and represent up to 40% of all direct buyers. During the COVID pandemic, the winery began delivering wine regularly to this group according to a

predefined schedule. This form of sales gradually became standard practice and today accounts for approximately 30% of customers.

Restaurants and wine shops also contribute to distribution, making up roughly another 30% of buyers. Customers purchase wine directly at the winery, or, to a lesser extent, at various cultural events.

Picture 28 – Adámek Family Winery meeting room
Source: Winery website



Distribution is mainly through direct sales in the cellar (40%) and personal deliveries across the Czech Republic, both to customers (30%) and to restaurants and wine shops (30%). Communication with customers primarily occurs by phone, SMS, or e-mail. The winery has its own website and e-shop, but they are not used to their full potential due to the family's limited time capacity. Promotion also includes participation in cultural events and competitions, with awards displayed on wine labels. The business does not engage in targeted marketing; instead, it relies on personal recommendations and direct contact.

Customer relationships developed because of direct communication and a personal approach. Guests who visit the guesthouse or cellar often become regular buyers. The delivery system relies on stable collection points, where one selected customer coordinates orders from others in the area. Information about delivery dates and order deadlines flows via SMS. Customers collect the wine at agreed distribution points. Trust and loyalty are strengthened by promptly replacing goods in the event of complaints.

The winery's main activity is wine production and subsequent delivery to end customers. The business benefits from direct contact and the ability to bring wine directly to the customer's door. Wine quality and personal service are considered essential. Accommodation in the

guesthouses is an integral part of the business, offering tastings, wine purchases, and additional services. The winery participates in selected cultural events and continuously modernises its technical equipment to reduce labour intensity and maintain wine quality. During harvest, it addresses the shortage of seasonal workers by involving extended family members or company groups through team-building.

Key partners include the family, which forms the main workforce in the vineyards, the cellar, and the guesthouses. Grape producers also play an essential role, as the winery depends on them for 90% of its supply and for suppliers of winemaking materials. To obtain information about subsidy opportunities, the business cooperates with Local Action Group Znojemsko and the Wine Fund.

The main revenue streams are cask wine (roughly 40%), bottled wine (30%), guesthouse accommodation (20%), and burčák (10%). The winery also receives subsidies, mainly for vineyard renewal and modernisation of technology. The most significant cost items include the purchase of grapes, which accounts for about half of total costs; bottling, corks, and labels, which account for about 15%; energy, also about 15%; and wages, at approximately 20%. The business aims to reduce energy expenses through the use of photovoltaics.

The owner identifies the import of cheap foreign wine and grapes as the main risk, although current customers prefer high-quality Moravian wine. Weather conditions affecting the vineyard also pose a significant risk, as does the family's own health, which is essential for maintaining operations. The winery does not actively seek new opportunities, but gradually experiments with the latest products, such as bottle-fermented sparkling wine (Frizzante), and adds small innovations to its offer each year.

Figure 6 – Business model Canvas

Source: Source: Author construct

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Family Grape growers Winemaking supplies suppliers, Local Action Group Znojemske, Wine Fund Cultural event organisers	Wine production, customer care, order delivery, guesthouse operation, participation in cultural events, investment in technology. Key Resources Purchased grapes (90%), family as a workforce, seasonal workers, modern technology, guest houses and cellars.	Direct contact with customers Personal approach, friendly atmosphere, quality vintage wines - emphasis on quality and traditional processing, barrel and bottled wines, accommodation and wine tourism (tasting).	Personal, direct contact, direct delivery, smooth exchange of goods, long-term relationships, recommendations among acquaintances. Channels Short supply-demand chains Direct sales in the cellar. Direct deliveries throughout the Czech Republic (SMS, e-mail, telephone) to end customers. Websites and e-shop (exist, but are little used).	Guesthouse guests: a) Families with children – weekly stay b) Larger groups without children – shorter stays (2-3 days), celebrations, team-building (40%). Customers from direct deliveries (private clientele) (30%) Restaurants and wine shops (30%),
Cost Structure			Revenue Streams	
Grape purchase: 50% Bottling (bottles, corks, labels): 15% Energy (partially covered by photovoltaics): 15% Wages: 20%			Barrel wine: 40% Bottled wine: 30% Guesthouses: 20% Burčák: 10%	

Case study 6: Farm Jalubí

Young Farmers Starting the Business using Short Food Supply Chain Strategy

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Country	Czech Republic
Region	Zlinsky kraj,
Farmer	Eduard a Viktorie
Age	
Gender	
Education	University
Experience	3 years
Specialisation	Beef
No. family members	2

Description of the region

The farm is in the Zlín Region, in the village of Jalubí near Uherské Hradiště, where the altitude ranges from 180 m to 320 m above sea level. The area's average annual temperature ranges between 8.7 and 9.3 °C, and annual precipitation is 590 mm. The farm is situated 4 km northwest of Uherské Hradiště, in the gently hilly foothills of the Chřiby Mountains, at an altitude of 229 metres. The region is partially within the Chřiby mountain range, which shapes local natural conditions and includes 12 small-scale, specially protected areas and two natural parks. The village of Jalubí has only 1,800 inhabitants, but good infrastructure allows efficient access to surrounding towns. Jalubí is part of the Northern Chřiby and Pomoraví Local Action Group (MAS SCHP), which comprises 18 municipalities in the Zlín Region on the border of the Zlín and Uherské Hradiště districts. The total area of the MAS SCHP is approximately 15,700 hectares, with a population of nearly 41,000 in 2019, resulting in a population density of 259 inhabitants per km². The region is an industrial-agricultural area spread across the fertile Lower Morava Valley along the lower reaches of the Morava River. Companies operating in agriculture and related sectors are an essential part of the regional economy and employment. The area is characterised by a lower proportion of forested land, which gives way to agricultural land, and the share of arable land in the micro-region surrounding the farm is significantly higher than the average for both the Zlín Region and the Czech Republic. Due to favourable climatic and soil conditions, agriculture maintains a relatively important position, while industry is primarily concentrated in urban agglomerations. The MAS SCHP territory consists of three

distinct types of functional landscape use: a settlement landscape type in urban areas such as Otrokovice and Napajedla, which form the region's natural centre; a suburban landscape type in the southern part, which includes Jalubí; and a landscape type with increased cultural and natural value in the northern part. Among the most significant tourist attractions are the Baťa Canal and its adjacent cycling path, the Barum Czech Rally Zlín, Napajedla Chateau, village museums, folk architecture sites, and the Budačina natural monument. Despite the internal diversity of the MAS SCHP territory, there are several common development challenges and opportunities; in the field of agriculture, specifically regarding the high number of micro and small enterprises, support focuses on developing processing, promotion, and the supply of local products, as well as directing agricultural production towards local markets and investing in agrarian holdings and infrastructure.

History of the farm, resources, technology and production

The farm was established as a project by a young founding couple within Victoria's family agricultural business. Eduard is developing a "business unit" within this family farm, while Victoria works as a doctor in a nearby hospital and assists with the farm's development as much as possible. Both recently completed university studies in agriculture, and as of 2025, the farm has been operating in this mode for three years. In total, the family manages approximately 450 hectares. Victoria and Eduard's farm is 150 hectares in size—most of which is leased, with only 15 to 20 hectares owned—and specialises in livestock production, specifically cattle breeding. They aim to increase their ownership to 40 hectares. Victoria's brother focuses on crop production and manages his own 150 hectares, as does her father, meaning each family member primarily manages their own specific farm. Eduard is the only full-time employee, while Victoria assists with farm activities after her shifts as a doctor. Seasonal workers are utilised during the production of bulk feed, such as alfalfa and corn. The farms do not own any machinery, and the necessary equipment is borrowed within the family.

Picture 29 – Farm Jalubí
Source: Farm website



In securing initial capital, the farm received a 2 million CZK grant for young farmers, which enabled the young couple to acquire a building for a future cutting plant. They lease their stables from third parties, where they have renovated an old pigsty and built a new stable. The farm keeps approximately 20 suckler cows, with the goal of expanding the base herd to about 100 head. The cattle breeds are mixed, including Limousin, Charolais, and Czech Fleckvieh. Each year, the farm purchases 8 to 12 calves for fattening. The suckler cows are kept year-round on pastures that serve as large paddocks (approx. 10 hectares) and utilise rotational grazing. Throughout the year, it is necessary to supplement the animals' diet with hay. The fattening animals are housed in halls and fed alfalfa and corn silage without grain meal, resulting in lower daily weight gains (around 1.2 kg) but more flavourful meat. Calves remain with their mothers on pasture for about 6-7 months. If bull calves are born, they are placed into fattening for slaughter. Fattened animals are continuously sent to a local slaughterhouse, where they are slaughtered and the meat is prepared as five- and ten-kilogram vacuum-packed bundles, with all the essentials required by regulations. Business cooperation with the local slaughterhouse is good in terms of both price and quality. However, this local slaughterhouse is becoming very busy, reaching capacity limits that are starting to constrain the farm; therefore, the farmers have decided to build their own meat-cutting plant. The plan is to complete their own cutting plant by the end of 2025. The farm will transport the quarters of the slaughtered animals themselves in a refrigerated truck and let them hang for an additional 10 days (instead of only 1 week, as is currently the case at the slaughterhouse), thereby improving meat quality. A contracted butcher will perform the subsequent cutting of the meat. The farmer will then assemble the bundles, label the beef, and vacuum-seal it. The farm is also

considering breeding Wagyu cattle, although this is less common in the Czech Republic, and customers are not as familiar with this type of meat.

Reasons for integrating in the Short Food Supply Chain

Before Eduard began developing the Jalubí farm, he worked as a zootechnician on large farms in the region. He observed the economic sustainability challenges in bull fattening when farms are part of an extended supply chain. The Jalubí farm was therefore aware from its inception of the difficulties it would face if it joined a conventional long food chain, where smaller farms encounter market access issues and economic disadvantages. The market access problem lies in the strict volume, quality, and certification requirements that farms must meet in extended supply chains, which can be costly for smaller startup farms and effectively close the door to the market. Economic disadvantage stems from the fact that small farms lack the same bargaining power as larger ones, leaving them to accept low prices set by traders or processors, ultimately resulting in lower profit margins for smaller farms in extended supply chains. Therefore, the farm's business model was designed to implement a short food supply chain strategy and differentiate itself in the beef market.

Specific Way the Farm Engages in the Short Food Supply Chain

In the Czech Republic, an increasing number of farms are using the so-called short food supply chain model to sell beef, meaning they sell meat directly to end consumers. A standard method is to sell beef in specially assembled packages containing a mix of different cuts. This sales model typically involves several key steps that ensure quality, transparency, and sustainability.

Picture 30 – Farm Jalubí animals
Source: Farm website



Farms that apply this model raise cattle with an emphasis on animal welfare, often under organic management. It is essential that meat sold in packages cannot come from home slaughter but must be slaughtered at a registered slaughterhouse under veterinary supervision.

After slaughter, the meat is left to age in cooling boxes. The ageing period, usually 10 to 14 days, is crucial for achieving the meat's correct flavour, tenderness, and quality. After ageing, the meat is portioned and packaged at the slaughterhouse or in an approved cutting plant. The packages may weigh, for example, 5 or 10 kg. The composition is usually diverse to utilise all parts of the animal. A typical bundle contains a mix of meat for stewing (shanks, neck, brisket), for roasting (chuck, round), for quick cooking (mock tenderloin), and also bones for soup. Sometimes offal is also added to the package. This approach is efficient and supports the idea of "nose to tail" meat sales while preventing waste. Farms often do not sell meat at any time; they sell only on prior orders. Customers reserve the meat well in advance, sometimes weeks before the slaughter occurs, which ensures sales and allows the farm to avoid waste. Sales take place directly from the farm gate, at farmers' markets, or through pick-up points in various cities where the farms deliver the meat. Some farms also offer meat delivery via courier services. The farm must be registered with the State Veterinary Administration (SVS) and meet strict hygienic and veterinary requirements. The meat must be labelled appropriately, including traceability of origin, date of slaughter, weight, and other data required by legislation.

The farm's value proposition is to offer beef in family-sized packages, produced with an emphasis on natural fattening and local origin. Customers can expect a personal, informal approach, clear communication, and convenient ordering and delivery. The Jalubí farm slaughters animals at a local butcher, who prepares vacuum-packed, labelled packages of meat that meet all requirements for sale. The farm sells beef in 5- and 10-kilogram packages. A five-kilogram package usually contains front meat (1.5 kg), back meat (1.5 kg), ground meat (0.75 kg), brisket or ribs (0.75 kg), and bones. A ten-kilogram package includes larger portions and also contains ribeye/sirloin, tri-tip, or mock tenderloin (about 1.3 kg), and flank or shank (about 1.5 kg). The packages are packed in custom bags with the logo and provided with stickers.

Figure 7 – Business model Canvas
Source: Author

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Family	Land management	The farm offers beef in family packages, produced with an emphasis on natural fattening and local origin. The customer can expect a personal and informal approach, clear communication, and convenience when ordering and receiving the product.	Personal contact with seniors	Seniors
Local Butcher	Cattle breeding and care		Channels	Young people under 30
Business Partners and Companies in the Region	Meat processing			
	Meat sales and distribution			
	Administration and financing			
	Key Resources			
	Physical Resources		On-farm sale	
	Human Resources		Delivery	
	Intellectual Resources		SMS Communication: The farm uses SMS messages to inform customers about beef availability and to take orders. This is a key communication channel for sales and marketing.	
	Financial Resources		Social Media	
Cost Structure A contracted butcher will carry out the subsequent cutting of the meat for CZK 2,000 per piece.			Revenue Streams Beef Sales - Beef packages are sold in 5- and 10-kilo variants at CZK 275 per kilogram. The farm plans to increase the price to CZK 300 per kilogram. Currently, annual income from meat sales is about 1/3 of total revenue. Non-agricultural income currently accounts for about 60% of revenue. Subsidies	

For regular customers, the purchasing process is simple and well established. The farm provides regular updates on slaughter dates and meat package availability, allowing customers to plan their purchases. This model offers convenience and assurance of access to a high-quality product without the need for active searching. The farm sells meat in family-sized packages that meet the needs of the target group and even delivers them directly to some customers. Customer value thus lies in the combination of a high-quality local product, a personal relationship, and a simple, reliable purchasing process.

The customer segments consist of seniors and younger people in their productive years up to 30 years.

Seniors aged 65 and over represent an increasingly important customer segment. Although they cannot be viewed as a homogeneous group—there are vast differences in income, health, lifestyle, and technical literacy among them—they share common characteristics and consumer behaviour relevant to sales. Seniors are often very price-sensitive, but this does not mean they seek only the cheapest products; value for money, meaning the ratio of quality, durability, and price, is essential to them. They prefer reliable, proven brands they know and trust, and this segment is also known for its high brand loyalty. Once they take a liking to a specific brand or product, they are willing to stay with it long-term, as changing habits is less attractive to them, even if competitors offer cheaper alternatives. Seniors' purchasing decisions are often influenced by trust, and personal recommendations from friends, family, or experts (e.g., doctors) mean much more to them than television or internet advertisements. Personal contact and in-store service are key for them; despite the growth of online shopping, brick-and-mortar locations remain essential for seniors, as they prefer the opportunity to touch and see the product and consult with a salesperson. The shop's atmosphere and quality customer service play a significant role. However, this customer segment requires detailed knowledge and analysis to determine whether these customers are also consumers of the product, as it often happens that these individuals purchase beef for the entire family or merely pick up the beef bundles for others.

A younger customer group emerged as soon as the farm began communicating via social networks (Instagram). People in their productive years, up to 30, form a dynamic and influential customer segment. This generation grew up with digital technology, unlimited access to information, and the strong influence of social media. They are diverse yet share characteristics that shape their consumer behaviour. Their purchasing journey often begins and ends online; they prefer e-shops and mobile applications where they can shop anytime, anywhere, and expect a seamless user interface, fast delivery, and transparent product information. Purchasing decisions are heavily influenced by social networks such as Instagram, TikTok, and YouTube, and they tend to trust influencers and micro-influencers more than traditional advertising, seeking authenticity and personal recommendations that feel

believable. For many young people, social responsibility and brand sustainability are essential, and they are willing to pay more for products that are environmentally friendly, ethically produced, or support a good cause, preferring local and small brands over large corporations. Brand loyalty is less intense than with older generations, as they are easily influenced by new trends and offers, mainly due to the constant flow of information on social media, making their purchasing decisions often spontaneous and impulsive.

Jalubí Farm utilises two main sales and distribution channels. The first is personal pickup at the farm, where roughly two-thirds of customers from the immediate surroundings collect their meat package directly. Additionally, the farm offers delivery to customers living farther away, which is used by approximately one-third of customers.

Over its three years of operation, the farm has built a steady community of customers and maintains telephone contact with each. In both distribution channels, the farm uses SMS messages to inform customers about beef availability and to accept orders, making it the key communication channel for sales and marketing. Most of the farm's customers are regular. With demand high enough to cover all production, the farm does not currently need to invest actively in marketing and customer acquisition, which is a significant advantage.

Case study 7: Madonan

Healthy food, healthy people

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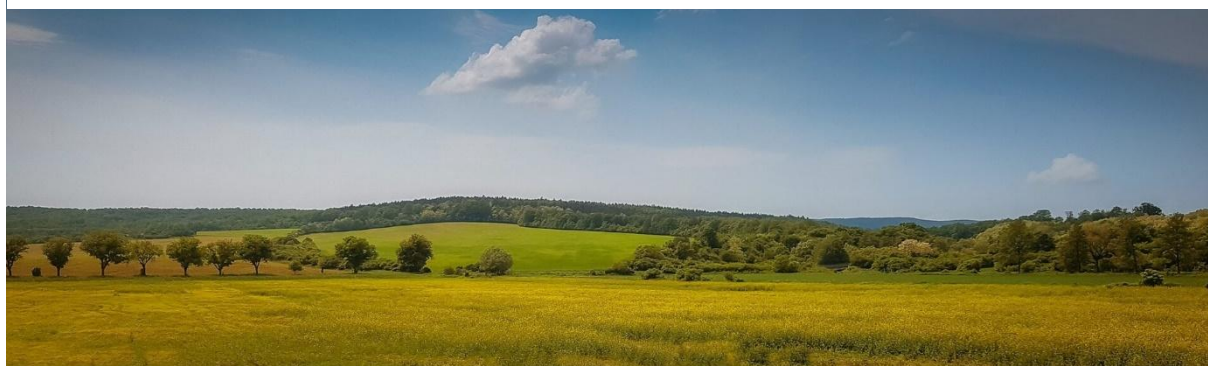
email: patrik.rovny@uniag.sk

Country	Slovakia
Region	Hlohovec region
Farmer	Mgr. Marian Sidor
Age	40
Gender	Male
Agrarian education	education/level Law/University Education
Experience in agriculture	5 years
Specialisation farms	milk production
Number members households	4

Description of the region

The Trnava Region lies on the border of lowland and mountainous areas, with the most significant part occupied by the Danube Lowland (Danube Uplands and Plains) and the Záhoria region. The mountainous relief consists of the Small Carpathians, the Považský Inovec, the White Carpathians, and the Myjavská Uplands. The highest point is Záruby (768 m) in the Trnava District. The Danube River drains the region, with the major rivers being the Danube, Morava, and Váh. The Gabčíkovo, Sĺňava and Kráľová waterworks are essential for energy, recreation and transport. The region comprises 251 municipalities across seven districts, of which 17 are cities. The largest population lives in the Trnava District, the smallest in Hlohovec. The population density is 133 persons/km². Climatically, it is a moderately warm and humid area with an annual temperature of 7–9 °C and precipitation of 700–900 mm. Conditions are suitable for grasslands, pastures and the cultivation of potatoes, cabbage and fruit. The altitude and terrain limit intensive farming, but support ecological forms. The soils are very fertile – black soil, brown soil dominate in the Danube Lowland. Agriculture is extensive, with cattle, sheep, and poultry farming dominant. Cereals, oilseeds, vines and sugar beets are mainly grown. Ecological farming and agrotourism are developing. The village of Kľačany is an example of a sustainable countryside, emphasising traditions, crafts, and a clean environment.

Picture 31 - Village Kľačany
Source: Facebook profile Kľačany



Farms' history, resources, technology and production farms

MADONAN SERVICES Ltd, located in the village of Kľačany in the Hlohovec district, is an exceptional example of organic farming that combines health, locality, innovation and community values. Its main specialisation is the production of A2A2 milk – a type of milk genetically distinct from conventional dairy and considered more digestible. In this article, we will take a detailed look at the establishment, development, current activities, technological processes, sales strategies, community ties and vision for the future of this exceptional farm.

Beginnings: From horse to cow

The story of the company MADONAN began unconventionally – not as a continuation of the family farming tradition, but as a personal decision of Mr Marián Sidor and his wife to change their lifestyle. Mr Sidor worked in the financial sector, and Mrs Sidorová was a teacher. Their interest in healthy food and living in harmony with nature led them to decide to buy a horse – and later a cow.

This cow, a culled Jersey dairy cow, turned out to be genetically exceptional – it produced A2A2 milk, which does not contain A1 beta-casein, which is associated with digestive problems. At the time, the Sidorovs had no idea there was such a thing as A2A2 milk – their decision was intuitive, based on their own observations of their health. After consuming conventional milk, they experienced digestive problems, which disappeared after switching to homemade milk.

A2A2 milk: Composition and health benefits

Milk is an essential part of the human diet, but its composition has changed over the course of evolution. Today, the focus is on beta-casein, the main protein in cow's milk. A2A2 milk contains exclusively A2 beta-casein, while regular milk contains a combination of A1 and A2. This difference arose through a genetic mutation around 5,000 years ago and has significant implications for digestion. The digestion of A1 beta-casein produces the peptide BCM-7, which has been linked to possible negative effects on the digestive tract. A2 beta-casein does not

release this peptide, which may explain the better tolerance of A2A2 milk in sensitive individuals. Consumers who experience bloating or abdominal pain after consuming regular milk often look for alternatives – A2A2 milk seems to be a suitable option. The production of A2A2 milk requires genetic selection of dairy cows, which represents an innovation in livestock breeding. Its growing popularity reflects a trend toward foods that promote health and well-being. Although scientific studies are still ongoing, A2A2 milk can be considered a return to the natural composition of milk consumed by our ancestors.

Picture 32 – Madonan farm logo

Source: Facebook profile Madonan



Farm construction and move to Kľačany.

Initially, they operated in the village of Bojničky, but later moved to Kľačany, where they built a modern organic farm on the former PD Hlohovec cooperative's premises. Today, the farm lies in the centre of the former livestock production area, where there is also a delivery point (Drive) for e-shop customers, a company store, and a dairy.

What was originally a single animal gradually grew into a herd that now numbers 164 Jersey dairy cows, all genomically tested for A2A2 milk production.

Picture 33 – Warehouse hall
Source: Facebook profile Madonan



Key activities and value propositions

The primary product, as mentioned above, is cow A2A2 milk. However, the quality of the milk is also closely linked to the feeding dairy cows receive. For Jersey cows, a preferred diet consists of industrially dried fodder free of mould or preservatives. This approach contrasts with the conventional use of fermented feeds such as silage and haylage. Dried feeds eliminate the risk of contamination with aflatoxins, toxic substances that can be transferred to milk and pose a health risk. In addition, this method reduces the occurrence of pathogenic bacteria, such as *Listeria*.

Another advantage of this feeding method is the lower histamine content in the milk. Histamine is a substance that can cause allergic reactions or other health complications in sensitive individuals. Feed control minimises its presence in the final product. In addition, the cows have access to pastures year-round, which contributes to their overall health and well-being and, in turn, to the quality of the milk.

Milk production and processing

The daily milk production at the MADONAN farm is approximately 1,000 litres. The milk is processed directly on the farm in its own dairy, producing the following:

- fresh milk in glass bottles,
- yoghurts (natural and flavoured),
- kefir,
- cottage cheese,
- butter,
- ripened cheeses,
- artisanal ice cream.

Production takes place without preservatives, with an emphasis on freshness, hygiene, and the preservation of nutritional values. The Sidor family completed professional internships in Italy, where they learned how to make artisanal ice cream and ripen cheeses.

Picture 34 – Milk in bottles

Source: Facebook profile Madonan



Reasons for integration into a short food supply chain

The primary impetus for establishing the farm was the founders' personal experience with digestive problems after consuming conventional milk. After switching to milk from their own Jersey cow, which produced exclusively A2A2 beta-casein, the health problems disappeared. This type of milk is considered easier to digest and less likely to trigger inflammatory reactions.

The health benefits of A2A2 milk became a key argument for promoting and selling it directly to consumers. From the beginning, MADONAN built its identity on the nutritional quality, freshness, and health safety of its products, thereby gaining the trust of customers seeking alternatives to conventional foods.

One of the most significant benefits of SFSC is transparency. Thanks to direct communication between the producer and the consumer, the anonymity typical of large retail chains is eliminated. MADONAN emphasises personal communication, transparency of the origin of raw materials, processing methods and management philosophy. The consumer can learn about the cows' feeding, the technological procedures used, and the values the company professes. This openness builds trust, which is the basis of a long-term relationship with the customer. The customer thus becomes not just a consumer, but an active participant in the food system who understands the origin of food and shares values with the producer.

Education and awareness are integral to the MADONAN business. The farm also uses SFSC as a platform for public education. Through blogs, videos, excursions and personal meetings, customers become part of the farm's story. Education about the benefits of A2A2 milk, organic farming, and dairy production helps shape consumer behaviour, increases awareness of nutrition, and promotes responsible consumption. This approach also strengthens customer loyalty, who identify with the farm's values.

From an economic perspective, SFSC offers significant advantages. In the traditional supply chain, intermediaries share a large part of the profit between themselves - wholesalers, distributors, retail chains. In the case of SFSC, a larger share of the product price remains with the producer, allowing farms to invest in quality, innovation, and sustainability. MADONAN is thus able to finance the development of new products, modernisation of technologies and the development of agritourism without dependence on state subsidies. This model also increases the farm's economic stability, enables more flexible pricing, and supports better cash flow planning.

Environmental aspects are another pillar of the decision for SFSC. Shortening the distribution chain means less transport, less packaging materials and lower energy consumption. MADONAN combines SFSC with an ecological farming approach, thereby significantly reducing its environmental footprint. Milk production excludes preservatives, with an emphasis on freshness and hygiene. The cows' rations include dried fodder free of mould or preservatives, eliminating the risk of aflatoxin contamination. In this way, not only is product quality ensured, but also environmental protection and animal health are protected.

Sales through SFSC also strengthen the regional economy. Supporting local producers creates jobs, increases self-sufficiency and reduces dependence on global supply chains. MADONAN becomes part of a community that shares the values of a healthy lifestyle, local production and responsible consumption. This community rootedness is the basis of social sustainability – the farmer is not only a producer but also a neighbour, advisor, educator, and cultural actor. As a family business, MADONAN can respond quickly to customer suggestions. Direct communication increases the entrepreneur's responsibility to the public, not only in successes, but also in admitting mistakes and correcting them. This flexibility is mainly due to their participation in an SFSC, which lacks a rigid intermediary structure. The customer can communicate directly with the farmer, express their needs, comments or suggestions, and the farmer can respond immediately - adjust the product, change the packaging, adapt the offer.

The way the farm connects to a short supplier chain food: focus on customer segments, channels and customer relationships

The customer segments that MADONAN specifically addresses are diverse and specific. The first group consists of customers interested in a healthy lifestyle. These consumers are looking for foods with high nutritional value, without preservatives, with a clear origin, and with minimal processing. MADONAN products, especially A2A2 milk, are attractive to them due to their better digestibility, the absence of beta-casomorphin-7 (BCM7) and gentle processing that preserves natural vitamins and enzymes. The second segment is people with intolerance to regular milk. A2A2 milk is suitable for people who suffer from digestive problems after consuming classic milk. Thanks to the genetic purity of the Jersey breed and the thorough testing of each animal for A2A2 beta-casein, MADONAN provides an alternative to lactose-free products.

The third segment is families with children, who represent a target group not only for dairy product consumption but also for agritourism. Farmpark MADONAN offers experiential activities that combine recreation, education and contact with nature. Camps, birthday parties, a mini-farm and interactive attractions create emotional bonds between the farm and families. The fourth segment is schools and educational institutions, with which MADONAN cooperates to organise excursions, school-in-the-nature programs, and other academic activities. These activities support environmental awareness, nutritional education and practical knowledge of agriculture. The fifth segment is local consumers who prefer fresh and ethical products. This group appreciates the opportunity to buy directly from the producer, without intermediaries. Important factors are freshness, an ethical approach to animals, ecological farming and support for the regional economy.

MADONAN's distribution channels are interconnected, enabling flexible customer involvement in SFSC. The basis is the e-shop (www.madonan.sk), which represents a modern distribution method. Customers can order products from the comfort of their homes, while the e-shop provides clear information about the products, their composition, origin, and processing methods. Real-time order make-up ensures maximum freshness. Distribution points in Kľačany, Bratislava and Poprad serve as logistics hubs where customers can pick up the ordered products. This model combines the advantages of online sales with personal contact, thereby increasing customer trust and satisfaction.

Picture 35 – Madonan product store
Source: Facebook profile Madonan



The company store directly on the farm is open 365 days a year, allowing continuous access to products. Customers can shop here without an order, taste products, communicate with staff and get production information. Personal sales on the farm create strong relationships - customers become part of the farm's story, which strengthens their loyalty and engagement. Agritourism activities and excursions serve not only as places of relaxation but also as distribution channels. Visitors can purchase products on-site, which encourages impulse purchases and an emotional connection to the farm.

Customer relationships at MADONAN develop on several key principles. Direct communication is the foundation – the founder of the farm, PhDr. Marián Sidor is known for his active communication via social networks, blogs and personal meetings. This approach creates a sense of closeness and trust. Customers have the opportunity to ask questions, express feedback and participate in shaping the product portfolio. Open feedback and solving suggestions are another pillar – MADONAN actively responds to customer suggestions, thereby demonstrating a willingness to improve. Transparency in solving problems strengthens the company's reputation as a trustworthy partner.

Building a "family of customers" is a philosophy that manifests itself in organising events, sharing stories and creating emotional bonds. Customers do not remain anonymous consumers, but become members of a wider community. Customer education is an integral part of the business – MADONAN strives not only to sell, but also to educate. Through videos,

blogs, excursions and personal interviews, it informs about the benefits of A2A2 milk, organic farming and dairy production. Education increases brand value and supports conscious consumption.

Customer service and availability are proof of the high standard of services. The store is open almost 365 days a year, fast order processing and a personal approach to customers create trust and stability. Customers can rely on consistent product quality and availability, which is extremely valuable in today's world full of uncertainties.

MADONAN's success factors within the Short Supply Chain (SFSC)

MADONAN SERVICES sro connects health, locality, innovation, and community values. Its business philosophy rests on the principles of a short supply chain (SFSC), which minimises the number of intermediaries between producers and consumers. In this context, the company's key priorities grow.

1. Quality and nutritional value of products

MADONAN specialises in the production of A2A2 milk from genetically tested Jersey cows. This type of milk is considered easier to digest and less likely to trigger inflammatory reactions. The priority is to preserve the natural properties of milk - without homogenisation, without high-temperature pasteurisation, without preservatives. Products such as yoghurts, cheeses, kefir, cottage cheese and artisanal ice cream are produced directly on the farm, with an emphasis on freshness and nutritional value.

2. Transparency and trust

One of the main priorities is open communication with customers. MADONAN provides information about the origin of raw materials, breeding methods, milk processing and management philosophy. The customer can visit the farm, meet the owner, and participate in excursions or educational activities. This transparency builds trust and loyalty.

3. Ecological and regenerative production

The company emphasises organic farming – cows are fed dried fodder without mould or preservatives, which eliminates the risk of aflatoxin contamination. The farm uses pastures, supports animal welfare and minimises the ecological footprint. The SFSC model allows sales within a 100 km radius, reducing the need for transport and packaging materials.

4. Direct sales and chain control

MADONAN sells its products through its own e-shop, distribution points in Kľačany, Bratislava, and Poprad, as well as through a company store open 365 days a year. Thanks to this, it retains most of the profit, flexibly sets prices and responds to demand. This model increases economic stability and resistance to market fluctuations.

5. Education and community connection

The farm organises outdoor schools, summer camps, birthday parties, excursions and creative workshops. Farmpark MADONAN is a place where children and adults learn about organic

farming, nutrition and life on the farm. The goal is to foster conscious consumerism and strengthen regional identity.

6. Innovation and cooperation with academia

The company collaborates with universities and research institutions to develop products, technologies and educational programs. Investments in technologies, professional internships abroad and involvement in international SFSC and bioeconomy projects are part of the strategic development.

7. Social responsibility and personal approach

Founder PhDr. Marián Sidor emphasises personal communication, open feedback, and building a community of “customer families.” MADONAN becomes not only a food producer but also an educator, neighbour, and cultural actor.

Conclusion

The story of MADONAN SERVICES sro shows that, even in the current competitive environment, it is possible to build a successful business based on the principles of a short supply chain (SFSC), organic production, and a personal approach to customers. The farm is a leader in A2A2 milk production, offering a healthier alternative to conventional dairy products. Thanks to consistent genetic testing, transparency and open communication, MADONAN has built the trust of customers who appreciate quality, freshness and an ethical approach.

The SFSC model enabled the farm to control the entire process “from cow to fork”, increasing the value of its products, reducing its ecological footprint, and strengthening the regional economy. The combination of direct sales, e-shop, distribution points, and agritourism activities creates a flexible distribution system that combines modern technologies with traditional values. The customer becomes not just a consumer but an active participant in the food system, understanding the food’s origin and sharing the farm’s values.

MADONAN proves that sustainable agriculture can be economically viable, ecologically responsible and socially beneficial. This model is an inspiration for other farms seeking a path to higher quality, transparency, and resilience in the face of global challenges. In conjunction with education, innovation, and community development, MADONAN becomes not only a food producer but also a driver of change in the Slovak agri-food sector

Figure 8 – Business model Canvas
Source: Author

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Feed suppliers Veterinarians and genetic specialists (A2A2 testing) Technological partners (dairy, processing) Schools, universities and research institutions Partners in agrotourism and SFSC projects	Breeding of Jersey dairy cows Production and processing of A2A2 milk Production of dairy products (yoghurt, cheese, ice cream...) Sales via SFSC (e-shop, distribution points, store) Agrotourism and educational activities Marketing and communication Key Resources Herd of Jersey cows (genetically tested) Own dairy and technology Farm and distribution points Human capital (family, employees) Knowledge and experience (e.g. internships in Italy) Brand and customer trust	The value that MADONAN brings lies in producing 100% A2A2 milk without preservatives, with high nutritional value, based on transparency, trust and a personal approach, while ecological and regenerative farming is complemented by an experiential farm park and education, thus combining health, sustainability and community.	Direct communication via social media and in person Open feedback and resolution of suggestions Building a “customer family” community Educational content (videos, excursions, blogs) Channels Shop: www.madonan.sk Distribution points: Kľačany, Bratislava, Poprad Company store (365 days a year) Personal sales on the farm Agrotourism activities and excursions	Customers interested in a healthy lifestyle Families with children (farm visits, camps) People with intolerance to regular milk Schools and educational institutions Local consumers prefer fresh and ethical products
Cost Structure			Revenue Streams	
Animal feed and care Energy and technology (including investments) Employees and experts Marketing and communication Loans and investment repayments (approx. €1.5 million) Farm and agrotourism facilities maintenance			Sale of dairy products (milk, cheese, yoghurt, ice cream...) Revenue from agrotourism (entrance fees, camps, celebrations) Educational programs and excursions Direct sales via e-shop and store	

Case study 8: PEMAK SK

Farm that combines tradition, innovation and sustainability

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Country	Slovakia
Region	Nitra Region
Farmer	Ing. Bálint Pém
Age	49
Gender	Man
Agrarian education/education level	Education in agricultural economics / university education
Experience in agriculture	30 years
Farm specialization	Organic farming, plant production - poppy
Number of household members	4

Description of the region

The Bálint Pém farm lies in the Nitra region in the Komarno district in the cadastral territory of the municipalities of Patince and Iža. The Nitra region, located in southwestern Slovakia, is one of the country's most important agricultural regions. Its location on the Danube Plain, favourable climatic conditions, and high-quality soils create ideal conditions for intensive and diversified agriculture. A striking example of these conditions is the municipality of Patince, located in the Komárno district in the southernmost part of Slovakia, near the border with Hungary.

The Nitra Region covers approximately 6,343 km² and includes seven districts: Nitra, Nové Zámky, Komárno, Levice, Šaľa, Topoľčany, and Zlaté Moravce. Most of the territory is made up of lowland relief, especially the Danube Lowland, which is known for its flatness and high soil quality. The lowest point in Slovakia (94.3 m above sea level) is in the Patiniec area, further emphasising its lowland character.

The Nitra Region is one of the warmest and driest regions of Slovakia. The average annual temperature ranges from 9.5 to 11 °C, with the highest temperatures recorded in Slovakia in the Patiniec and Hurbanov areas. Annual precipitation ranges between 500 and 600 mm, which is below the national average. These conditions are ideal for growing thermophilic crops, but they also require irrigation systems and efficient water management.

The soils in the Nitra Region are among the most fertile in Slovakia. In the Patiniec area, black and brown soils with high humus content and excellent nutrient and water retention

predominate. These soils are highly suitable for intensive crop cultivation, especially cereals (wheat, barley), corn, sunflowers, sugar beets, vegetables and fruits.

The Nitra Region is a leader in plant production in Slovakia. The following are mainly grown here:

- cereals – wheat, barley, corn,
- oil seeds – sunflower, rapeseed,
- vegetables and fruits – especially apples, peaches, apricots, tomatoes, peppers.

Pig, cattle, and poultry farming dominate animal production. The Patince area also has smaller family farms that focus on specialised production, such as fruit growing, beekeeping and organic farming.

The Nitra Region is the third most populous region of Slovakia, with a population density of approximately 111 inhabitants per km². A significant Hungarian minority lives in the Komárno and Patince areas, accounting for 27.6% of the region's population. The village of Patince has approximately 400 inhabitants and is also known as a recreational and spa centre thanks to its thermal springs.

Despite the excellent natural conditions, agriculture in the region faces several challenges:

- climate change (increased drought, extreme temperatures),
- ageing of the agricultural population,
- low added value of production,
- The need for modernising and digitalising farms.

On the other hand, the region has great potential in agritourism, organic farming, and the development of short supply chains. The Nitra region has exceptional natural and cultural prerequisites. Agritourism can build on existing recreational facilities - the thermal swimming pool in Patince, flat countryside suitable for cycling and a strong regional identity with traditional gastronomy. The combination of relaxation with authentic farming experiences is attractive to both domestic and foreign visitors.

Organic farming benefits from high-quality black soil with a high humus content and a favourable climate for crops such as poppy, mustard and legumes. The region is already undergoing land conversion to organic production, demonstrating the feasibility and growing demand for organic food.

Short supply chains benefit from the proximity of consumer centres (Nitra, Komárno) and the existence of community markets, such as the Slow Food Earth Market Karva. Direct sales reduce logistics costs, increase product freshness and allow farmers to achieve higher added value through processed specialities (oils, chocolates, wines).

Farm history, resources, technology and farm production

The story of the SHR Bálint Pém farm – H Level is an example of how a small family farm can become a modern agricultural enterprise with international reach. The founder of the farm, Ing. Bálint Pém, comes from a family with deep agrarian roots. Already in his youth, he knew he wanted to continue his ancestors' tradition while bringing innovation and greater added value to agriculture.

Picture 36 – Example of a machine display
Source: Bálint Pém



The Pém family (Bálint Pém's parents) inherited approximately 7 hectares of arable land and a small farm in Patince, which served as the basis for the future business. Initially, they grew vegetables and fruits, which they sold to wholesalers. After graduating from the Slovak University of Agriculture in Nitra, Bálint Pém decided to expand production to include early potatoes, Chinese cabbage and celery. The farm gradually grew to 15 hectares.

The key moment was the entry into the SAPARD program (year 2000), which enabled the purchase of modern agricultural machinery. This step required significant investments, so Bálint Pém temporarily accepted the position of chief agronomist in PD Zlatná na Ostrove. The experience and financial resources gained allowed him to expand the farm and introduce new technologies. After five years, he focused entirely on his own business, which today includes

more than 530 hectares of agricultural land (most of which is his own), of which 100 hectares are in transition to organic farming.

The farm has extensive land in the Patiniec area with fertile black soil, modern agricultural technology, including its own poppy harvester, and a strong family background. The cooperation of several generations is one of the pillars of success - the farmer's father introduced innovations and other technical adjustments. The PEMAK SK brand covers the production and sale of poppy seeds and products made from them, which has also made the farm known outside the region.

Technological innovation is the foundation of the farm's philosophy. Bálint Pém is a pioneer in implementing regenerative practices, including no-till farming, the systematic use of green manure and catch crops, crop diversification, and biodiversity protection. After harvesting the main crop, he never leaves the soil bare – he sows phacelia, mustard, vetch, peas or buckwheat, which naturally fix nitrogen and improve soil structure. This approach reduces the need for chemical fertilisers, protects the soil from erosion and supports life in the soil.

*Picture 37 – Poppy is one of the main crops on the farm
Source: Bálint Pém*



An important element is also the diversification of cultivated crops. In addition to cereals and oilseeds, the farm specialises in poppy, which has become a strategic crop in its crop rotation. Poppy is grown for food, the pharmaceutical industry, and organic products. The farm's

portfolio includes various varieties of poppy - blue, white and ocher - with an emphasis on low alkaloid content. The finalisation of products under the PEMAK SK brand complements the production of cold-pressed poppy oil, poppy chocolates, poppy honey, poppy wine, and natural cosmetics. The farm's philosophy rests on three pillars: tradition, innovation and cooperation. Bálint Pém combines family values with modern technologies and openness to research. He cooperates with universities, tests soil quality and the profitability of individual growing systems. All decisions rest on data and careful observation. This approach makes the farm not only a producer of high-quality poppy seeds but also a centre of knowledge and development.

The SHR Bálint Pém - H Level farm is proof that ecologically and economically viable farming is possible even in the conditions of southern Slovakia. In times of climate change and rising input prices, it represents a model that combines sustainability, quality and local identity. It is an example of a business that respects the soil, nature and the future.

Reasons for integrating into a short food supply chain

The decision of the PEMAK SK farm, led by Bálint Pém, to integrate into a short supply chain was not accidental. It was a strategic step that addressed the current challenges in agriculture, changing consumer preferences, and the need for sustainable development. This approach was a response to the pressure of a globalised food system, which often leads to product anonymity, low added value for the farmer and environmental problems. In an environment where large retail chains dominate the market and dictate prices, a short supply chain becomes a tool for strengthening economic stability, protecting the environment, and restoring the relationship between producers and consumers.

Economic factors play a key role in this decision. The traditional sales model through wholesale networks reduces farmers' margins and separates producers from end customers. For the PEMAK SK farm, which manages more than 530 hectares of agricultural land, including 100 hectares in conversion to organic farming, it is crucial to maximise the added value of its production. A short supply chain allows for better control over pricing, reduces logistics costs, eliminates intermediaries, increases the farm's economic stability, and creates space for investments in innovation, such as developing its own poppy-harvesting adapter or expanding its product portfolio with high-value-added specialities. This model also allowed the farmer to respond flexibly to changes in demand and to create products aligned with current trends in healthy nutrition.

Ecological factors are equally important. The Nitra region is one of the most fertile regions of Slovakia with humus black earth soils. These conditions are ideal for organic farming, which is the core of the PEMAK SK philosophy. The farm uses no-till farming, catch crops, and green manure, which reduce the carbon footprint and support biodiversity. In addition, the short chain minimises the need for long transport, thereby contributing to environmental protection. In times of climate crisis and growing pressure for sustainability, this approach becomes a competitive advantage that appeals to consumers sensitive to ecological issues. For the farm, this means not only environmental responsibility but also marketing potential, as organic products increase in demand.

Social and cultural factors add another dimension to the strategy. Integration into a short chain allows the farmer to have direct contact with the customer, build trust, and raise awareness of sustainable agriculture. Participation in community markets, such as the Slow Food Karva Market, creates space for personal meetings, tastings and discussions. This model supports the local economy, preserves regional identity and connects gastronomy, history and modern trends. In a region with a rich cultural tradition and a substantial Hungarian minority, this creates a unique space for presenting products bearing the seal of authenticity. Here, the consumer buys not only food, but also a story – the story of the farmer, his philosophy and his relationship with the land.

The decision to integrate into a short supply chain is therefore the result of an encompassing consideration that combines economic, ecological, social, and strategic aspects. This model delivers higher added value to the farmer, high-quality, transparent products to the consumer, and a sustainable system that respects nature and cultural traditions to society. At a time when globalisation and the industrialisation of the food industry lead to uniformity of tastes and the loss of biodiversity, the PEMAK SK approach serves as an inspiration for other producers seeking a path to fair, ecological and economically viable agriculture.

The specific way the farm engages in the short food supply chain: customer segments, channels, and customer relationships

The integration of the PEMAK SK farm into a short supply chain represents a well-thought-out strategy based on clearly defined customer segments, diversified distribution channels and systematic building of relationships with consumers. The PEMAK SK farm, led by Bálint Pém, manages more than 530 hectares of agricultural land, including 100 hectares in transition to organic farming. Specialising in the cultivation and processing of poppy seeds into a wide range of products - from poppy oil to chocolates to cosmetics - lays the foundation for a high-value-added strategy. This model rests on the philosophy of “tradition, innovation, cooperation”, which reflects in all aspects of the business. The key to success is to correctly target customer groups that value the quality, origin and story of products. The first group is consumers oriented towards healthy nutrition and organic products. These customers are looking for organic-certified foods with a clear origin, free of chemical additives, and with guaranteed quality. Poppy seeds are attractive to them due to their high levels of calcium, omega-3 fatty acids, and antioxidants, which support bone health, the nervous system, and digestion. For this group, not only the product itself is important, but also its story – they want to know where it comes from, how it was grown and what its impact on the environment is.

The second segment consists of farm shops and speciality stores that offer regional products with higher added value. Customers who prefer quality over quantity and are willing to pay a higher price for authentic food often visit these stores. For the PEMAK SK farm, cooperation with these stores is crucial, as it expands its reach to urban markets and allows it to present products in an environment that emphasises their ecological and artisanal character.

The third segment is the Slow Food community and foodies who value the philosophy of “good, clean and fair”. These are people interested in traditional recipes, craftsmanship, and

the cultural dimension of food. For them, shopping at a community market is an experience – an opportunity to meet the producer, taste new products and discuss sustainability. This segment’s customers are exceptionally loyal and often become brand ambassadors, which positively impacts its reputation.

Slow Food Karva Earth Market: A Manifesto of Sustainability, Tradition and Community Development

Nowadays, as globalisation and the industrialisation of the food sector lead to uniformity of tastes, loss of biodiversity, and the marginalisation of small producers, the need to return to local, sustainable, and ethical forms of food production is increasingly coming to the fore. One of the most prominent manifestations of this philosophy is the Slow Food movement, founded in Italy in 1986 as a response to the rise of fast food culture. Its goal is to promote food that is good, clean and fair – that is, tasty, ecologically produced and at a fair price. In this spirit, so-called Earth Markets are being created all over the World, which represent the concrete implementation of Slow Food principles. One of them is the Karva Earth Market, located in the village of Kravany nad Dunajom in southwestern Slovakia.

Picture 38 – Slowfood in Karva – vendors
Source: Facebook profile Pemak



The Slow Food movement rests on three fundamental pillars:

1. **Good** – food must be tasty, nutritious and prepared with respect for culinary traditions.
2. **Clean** – production must not harm the environment; it must be ecologically sustainable.
3. **Fair** – fair compensation to producers, and consumers must have access to transparent information.

Markets in Karva are community markets that apply these principles in specific regions. They aim to create a space where local producers and consumers meet, where biodiversity, traditional crafts and regional identity are supported. The Karva Earth Market originated as an initiative of the local community, in cooperation with Slow Food and the Slow Food Foundation for Biodiversity, in 2023. The venue – the Danube Promenade in Kravany nad Dunajom – is symbolic: it is a space where cultural and natural landscapes meet, where the Danube creates unique conditions for agriculture, fishing and recreation.

Since its inception, the market has been held regularly, most often during the summer months. Each event is thematically focused – for example, on seasonal fruits, traditional recipes, handicrafts or ecological innovations. The market has become not only a place of sale but also a platform for education, discussion, and cultural exchange. The Karva Earth Market has several specific features that set it apart from regular farmers' markets. The selection of producers takes place in accordance with Slow Food principles. Vendors must meet the criteria for organic, local, and ethical production, meaning the products are free of chemical pesticides, seasonal, and organically packaged. Customers are mainly health-oriented people, gourmets and members of the Slow Food community who appreciate the quality, origin and story of the products. Families, tourists and locals looking for authentic food and experience visit the market regularly. The number of producers is unspecified, but they are a group of small farmers and artisans who undergo a selection process. The market's success lies in supporting the local economy, building trust between farmers and consumers and regularly organising events that combine sales with cultural and educational activities.

Picture 39 - Slowfood in Karva
Source: Facebook profile Pemak



The Karva Earth Market has a significant impact on the local economy by supporting small producers who would otherwise lack access to large markets. The money stays in the community, thereby increasing the region's economic resilience. This effect is visible, for example, in farmers who, thanks to the market, sell their products directly to consumers without intermediaries, thereby achieving higher margins and a more stable income. At the same time, the market strengthens social ties - it becomes a place to meet, exchange experiences, and build trust. Examples include seniors selling homemade products and young farmers seeking new forms of employment, thus creating space for intergenerational dialogue

and the renewal of community spirit. This benefit goes beyond the economic level and contributes to social inclusion.

Environmental sustainability is at the core of Karva Earth Market's philosophy. The products sold at the market are:

- without chemical pesticides and fertilisers,
- seasonally and locally, thus reducing the carbon footprint,
- ecologically packaged or without packaging,
- made with consideration for soil, water, and biodiversity protection.

The market also serves as a platform for ecological innovations – for example, showcasing permaculture techniques, composting, renewable energy sources, or zero-waste concepts. The Karva Earth Market is also a cultural event. In addition to selling food, it hosts concerts, theatre performances, exhibitions, and community activities. The market thus contributes to revitalising public space, strengthening regional identity, and preserving cultural heritage. Many products sold at the market carry intangible cultural heritage – such as traditional recipes, food processing techniques, regional varieties or handicrafts. The market thus plays an important role in preserving cultural diversity.

PEMAK distribution channels

PEMAK SK uses three main distribution channels that complement each other, creating a synergistic effect. The brick-and-mortar store in Komárno, located at Jókaiho 32 in the Lux Centrum area, serves as a showroom where customers can not only purchase products but also learn about their origins. The space design is to support personal contact, present the farm's philosophy and educate consumers. In addition to sales, tastings, discussions, and presentations of new products are held here, which strengthen the relationship between the farmer and the customer.

Picture 40 – Pemak store
Source: Facebook profile Pemak



The online store extends the farm's reach nationwide. Online sales enable convenient shopping, the presentation of the entire assortment, and the communication of the brand's value propositions. In the digital environment, visual identity, high-quality product photos and content that emphasises ecological practices and the health benefits of poppy seeds are important. The online channel is also a platform for marketing campaigns, newsletters, and customer interaction via social networks.

Participation in community markets, especially the Slow Food Karva Earth Market, is one of the farm's most prominent expressions of its philosophy. This market directly connects farmers with consumers and creates a space for tasting, education, and trust-building. It has not only a commercial but also a cultural and social dimension – supporting regional identity, preserving traditions and spreading awareness about sustainable agriculture.

Customer relations

The key to PEMAK SK's success is transparency and brand storytelling. The farm actively communicates the values of organic farming, the health benefits of poppy seeds, and its sustainability philosophy. It organises tastings, workshops, and discussions at markets, thereby strengthening customer loyalty. This approach creates a community that sees purchasing products as supporting the local economy and ethical business practices. Customer relationships grow because of personal contact, education, and digital communication. Personal contact takes place through meetings at markets, in-store tastings, and product presentations. Education includes information about organic practices, the health benefits of poppy seeds, and the Slow Food philosophy. Digital communication through e-shop, social networks, and newsletters maintains contact and provides up-to-date information.

The Slow Food Karva Earth Market is a platform for showcasing organic products, educating consumers and building regional identity. Participation in the market allows farmers to showcase the results of organic farming, discuss with customers and raise awareness about sustainability. Product innovations, such as poppy seed chocolate, chocolates, poppy seed wine or natural cosmetics with a high poppy seed oil content, increase brand appeal and enable revenue diversification. Educational activities that inform customers about the origin of products, organic practices and the health benefits of poppy seeds strengthen trust and loyalty.

Despite its success, this strategy faces several challenges. Market organisation and marketing require resources that are not always available. Not every consumer is willing to pay a higher price for quality products, which requires education and a change in habits. Legislative barriers often favour large producers at the expense of small farms. Despite these obstacles, the short supply chain model has great potential. It strengthens the farm's economic resilience, promotes environmental sustainability, and creates space for cultural and community

development. In a time of climate crisis, rising input prices and globalisation of the food market, this approach represents a path to stability, quality and justice.

The case study of PEMAK SK and its founder, Bálint Pém, is an inspiring example of how modern, ecologically responsible, and economically viable agriculture can thrive in the conditions of southern Slovakia. The combination of tradition, innovation and cooperation has created a farm that is not only a producer of quality poppy seeds, but also an active participant in community life and a bearer of the Slow Food philosophy.

One of the key aspects of PEMAK SK's success is its emphasis on a short supply chain, which enables the manufacturer to have direct contact with consumers. In the case of PEMAK SK, the short supply chain is implemented mainly through two main channels: a brick-and-mortar store in Komárno and a community market in the village of Karva. The brick-and-mortar store allows direct customer contact, provides information about product origins, and supports the local economy. The market in Karva, organised in the spirit of the Slow Food philosophy, creates space for personal meetings, tastings, and the building of trust between the farmer and the consumer. These sales models are key to maintaining freshness, quality, and transparency in the food chain. Reducing logistics costs supports the freshness and quality of products and builds trust between the farmer and the customer. Markets like the one in Kave, where the company regularly presents itself, are living proof that local food has its place in the modern food system. The short chain also allows for better price control, increasing the farm's economic stability.

PEMAK SK's approach to soil, crop diversification, biodiversity protection, and sustainability shows that even in a small region like Patince, a model in line with global challenges – climate change, loss of soil fertility, and the need for local food self-sufficiency. Its emphasis on education, cooperation with research institutions and openness to innovation make PEMAK SK not just a farm, but also a centre of knowledge and development. Participation in the coffee market and involvement in the Slow Food movement confirm that entrepreneurship in agriculture can be both a cultural and social act. The story of PEMAK SK is proof that agriculture has a future when built on respect for the land, people, community and values that go beyond economic profit.

Figure 9 – Business model Canvas

Source: Author

Key partners	Key activities	Value Suggestions	Customer relations	Customer Segments
Family (support and cooperation)	Growing poppy (blue, white, ochre)	We offer high-quality poppy seeds with a low alkaloid content that meet the strictest food standards.	Direct contact in the markets	Consumers looking for quality and organic products - customers interested in healthy nutrition (share 50-60%)
Association of Young Farmers (ASYF) Universities and research institutions	Organic farming Development of our own harvesting adapter		Direct contact in a brick-and-mortar store	Farm shops (share 20-30%)
Slow Food Movement	Processing of poppy and product production		Customer education	
Artisans and local processors	Participation in community markets (Coffee)		Online sales via e-shop	Slow Food Community (share 10-15%)
	Key resources		Channels	
	Own agricultural land in Patince		Market in the online store	
	Family farm and technology		Farm shops in Slovakia	
	Knowledge and experience with the Bálinta Péma brand		Slow Food Network	
	PEMAK SK Ecological certificates		Personal recommendations and community networks	
Cost structure			Revenue streams	
Costs of Organic Farming			Sales of poppy seeds (consumer, pharmaceutical industry)	
Technology and Adapter Development			Sales of processed products	
Production of products (chocolate, oils, wine) Participation in markets			Online sales	
Marketing and distribution			Market sales	
			Organic products with higher added value	

Case study 9: TBS

Vertical integration

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Country	Slovakia
Region	Podkylavsky region
Farmer	Ing. Vojtech Tíčík, PhD.
Age	81
Gender	Man
Agrarian education	education/level Education in agricultural economics/university degree
Experience in agriculture	55
Specialisation farms	Organic agricultural, plant and animal production
Number members households	8

Describe of the Region

The Trenčín region, especially the Myjava district and the Podkylava region, is characterised by a distinct agricultural landscape, where traditional subsistence farming still prevails. The mountainous relief and scattered settlements create specific conditions for extensive forms of agriculture. Podkylava, a small village with approximately 240 inhabitants, is an example of a sustainable countryside, where natural wealth combines with cultural heritage.

The climate is moderately warm and humid, with an annual temperature of 7–9 °C and precipitation of 700–900 mm. These conditions are favourable for grasslands, pastures, and the cultivation of potatoes, cabbage, and fruit. The altitude of around 246 m above sea level and the rugged terrain limit the possibilities for intensive farming, but create space for ecological approaches.

Picture 41 – Village Podkylava
Source: website Podkylava.sk



The soils are predominantly cambisols and rendzinas - moderately fertile, with good water retention, suitable especially for grasslands, orchards and pastures. Due to the sloping terrain, protection is essential.

Agriculture focuses on raising cattle, sheep, and poultry, and growing traditional crops. In recent years, organic farming and agrotourism have been developing. Podkylava preserves traditional crafts and folk buildings, and supports local producers, making it a model example of an ecologically and culturally sustainable countryside.

Historical farms, resources, technology and production farms

TBS, led by Ing. Vojtech Tlčík, represents a unique example of the successful integration of traditional agriculture with modern approaches to sustainability, agritourism and short supply chains (SFSC) in Slovakia. Based in the village of Podkylava in the Kopanice region, TBS has evolved from a traditional agricultural enterprise into a comprehensive platform that combines production, processing, education, and tourism. This model not only strengthens the local economy but also contributes to the preservation of rural culture and biodiversity. TBS farms approximately 150 hectares of agricultural land and pastures and raises around 120 beef cows (Charolais and Highland breeds). Cattle).

Picture 42 - Company owner Ing. Vojtech Tlčík
Source: website penzion-adam.sk



Ing. Vojtech Tlčík is a personality who, through his life and work, proves that technical thinking, entrepreneurial courage and a deep connection to his native land can create a strong foundation for rural development. His story is not only a statement of personal success but also a vision of how the country can improve, with respect to its traditions and its future.

After studying at a technical university and having a successful career in mechanical engineering, Vojtech Tlčík returned to his native region, where he became the chairman of the JRD in Krajno. Already in the 1970s, he began introducing innovative approaches to agriculture - from modernising production processes to diversifying the cooperative's income. Under his leadership, for example, a modern rotating milking parlour made dairy farming more efficient, a moulded feed factory increased the cooperative's self-sufficiency, and the expansion of the vehicle fleet by dozens of trucks, which served not only agricultural purposes but also commercial transport of materials. In the 1990s, Tlčík focused on developing agrotourism as a tool for revitalising the countryside. Together with his team, he built the Adam agro-pension, which became the centre of rural experiences in the region. This project connects agricultural production with tourism and offers visitors authentic contact with nature, animals and traditional cuisine.

At the same time, he is educating the younger generation - he organises lectures for elementary school students, where he explains the principles of agrotourism, entrepreneurship and sustainable farming. His goal is to motivate young people not to be afraid to stay in the countryside and develop it in a modern way.

Charolais cattle from the USA in 1992. This step was unprecedented in Slovakia at the time - the embryos were implanted into rabbit uteruses, which made it possible to introduce new genetic lines into Slovak breeding. This project significantly improved the quality of beef cattle in the region and demonstrated the effective implementation of cutting-edge biotechnological innovations in rural areas.

In addition to his business activities, Tíčík remains an active member of the community. He organises folklore festivals, supports local crafts, and preserves the cultural heritage of the

Picture 43 – Agro-penzion Adam

Source: website penzion-adam.sk



Kopanica region. His philosophy is simple: "Success only makes sense if we share it with others."

In 1998, he founded TBS as a joint-stock company with the vision of creating a sustainable enterprise that would connect plant and animal production with added value.

TBS is a model for transforming Slovak agriculture. Its multifunctional model, based on the principles of SFSC, agritourism, and local cooperation, not only increases the region's competitiveness and diversifies its economic base but also contributes to social and environmental sustainability. In an era of global challenges such as climate change or biodiversity loss, TBS's approach is an inspiration for the entire Central European region.

Picture 44 – Folk festival on farm
Source: website penzion-adam.sk



Reasons for integration into a short food supply chain

The integration of TBS Farm into the short food supply chain represents a strategic response to the current challenges of agriculture related to economic efficiency, ecological sustainability and social embeddedness. This model is not just a technical distribution solution, but a comprehensive approach that changes the way food gets from producer to consumer.

The economic motivation is to increase production's added value and gain control over the entire chain. The traditional system relies heavily on intermediaries, which reduces farmers' profitability. TBS transformed this model through vertical integration: it built its own processing plant, farm shop, restaurant, and guesthouse. As a result, it controls the entire value chain "from field to table", allowing it to retain a larger share of the profit, guarantee quality, and respond flexibly to demand.

Picture 45 – Fruit processing hall
Source: website penzion-adam.sk



Environmental sustainability is another pillar of SFSC. Short chains minimise transport distances, thereby reducing the carbon footprint. TBS products are distributed mainly within a 100 km radius, in line with the principles of the local market outlined in the Rural Development Programs of the Slovak Republic. In addition, the farm uses ecological practices – raising cattle without antibiotics, growing fruit without chemical inputs, and producing without preservatives. This approach not only reduces environmental burden but also increases consumer confidence in product quality.

The social dimension of SFSC lies in community building. TBS organises school excursions (10-15 excursions per year), folklore events (minimum 2 events), children's camps (5 camps per year), and educational activities, thereby strengthening regional identity and cultural heritage. The consumer becomes an active participant in the food system, which increases their engagement and loyalty.

Economic stability is another benefit. Direct sales enable flexible pricing and rapid responses to changes in demand. TBS is less dependent on wholesale prices, which are often volatile and influenced by global factors. Diversification of income – food sales, accommodation,

agritourism, educational services – creates a robust economic model that reduces risk in times of crisis.

Innovation and academic cooperation are key elements of development. TBS actively cooperates with the Slovak University of Agriculture in Nitra on the development of new products, recipes and technologies. SFSC enables rapid testing of innovations in practice, gathering customer feedback, and transferring knowledge from research to production. The result is original regional products – chocolates with fruit, seasonal beers, syrups – that are high-quality and add value.

Specifically, the way in which the farm connects to a short food supply chain: customer segments, channels and customer relationships

TBS, in Podkylava, is a model example of how an agricultural enterprise can effectively use the principles of a short food supply chain (SFSC) to create a sustainable, economically stable and socially rooted system. This approach is not just a theoretical concept, but a practically implemented model that integrates production, processing, distribution, tourism, and education into a single functional unit. In the following text, we will focus in detail on three key areas: customer segments, distribution channels and customer relationships, which form the basis of TBS's success within the SFSC.

Customer segments – diversification and connection to regional values

One of TBS's greatest strengths is its ability to address diverse customer groups, each with specific needs and expectations. This segmentation approach allows the company to respond flexibly to market changes while building a stable customer base.

Residents and customers from the region form the core of SFSC. These are people who prefer fresh, local and organic products with guaranteed origin. For them, not only is quality important, but also personal contact with the producer. The farm shop in Podkylava has become a place where tradition meets a modern approach – the customer does not shop anonymously here, but knows the story of the food he consumes. This segment is key to maintaining the regional economy and strengthening local identity. In this way, the company sells an average of 6 tons of beef.

Families with children represent another vital segment. They are looking for experiential accommodation, contact with nature and the opportunity to participate in farm activities. For TBS, these families are not only customers, but also ambassadors of the value of "healthy soil - healthy nutrition". Thematic stays, schools in nature and children's camps allow children to learn about the principles of organic farming and create emotional bonds that translate into loyalty.

Schools and educational institutions use the farm's educational programs, which promote environmental awareness and practical knowledge of sustainable agriculture. Excursions and workshops are combined with product tastings and demonstrations of production processes, making education an experience.

Tourists and visitors to the region discover authentic experiences of the Kopanica region – folklore, traditional cuisine, and rural environment. The connection with the Adam guesthouse allows the presentation of the farm's products through gastronomy and experiential tourism. The tourist thus becomes part of the region's story, thereby increasing his willingness to support local production.

Finally, customers oriented towards organic and artisanal products buy via e-shop or at regional markets. This segment values transparency of origin, quality and artisanal character of products – from meat to syrups to chocolates and beer. For TBS, this segment is strategic because it expands its reach beyond the region and strengthens the brand nationally.

Distribution channels – connecting traditional and modern forms of sales

TBS uses a multi-channel system to ensure the availability of products and services across all segments. The foundation is the farm shop in Podkylava, which serves as the main point of contact for customers and where personal sales, communication, and trust-building take place. The shop is not only a place of business but also a centre of community life, where locals, tourists, and event visitors meet.

Another important channel is the Adam restaurant and guesthouse, which transforms farm products into a gastronomic experience. Guests have the opportunity to taste meat, cheese, and fruit products directly from the farm, reinforcing the concept of "from field to table". The guesthouse also offers accommodation in stylish rooms, themed stays and options for families, schools or corporate events, thus connecting product distribution with tourism.

Seasonal markets and regional events expand the farm's reach beyond Podkylava. Participation in folklore, fairs, and gastronomic festivals allows us to present our products to a broader public and to build the TBS brand as a bearer of regional identity.

Online sales via e-shop are a modern channel that ensures product availability outside the region. Customers oriented towards quality and ecological values appreciate convenient shopping and transparency of origin. E-shop complements personal contact and enables regular interaction through blogs, newsletters and social networks.

Finally, community networks and personal recommendations are informal yet extremely effective channels. In rural environments, personal relationships and trust are essential. Loyalty programs, special promotions, and customer engagement in events strengthen loyalty and create emotional bonds.

At TBS, customer relationships grow on the principles of personal contact, experience, and education. In the store and on the farm, customers meet producers, can participate in activities, taste products and learn about their origins. This direct contact creates trust, which is the basis of SFSC's success.

Experiential accommodation at the Adam guesthouse allows for a deeper contact with the farm, animals and nature. Guests become part of rural life, which strengthens their relationship with the TBS brand. Educational activities – workshops, nature schools, excursions – build awareness of organic farming and promote responsible consumption.

Community ties and loyalty programs are another pillar of relationships. TBS organises folklore events, regional celebrations, and special events that connect customers with the region's cultural heritage. Online communication through social networks and e-shops complements personal contact and enables regular interaction.

The integrated SFSC model in TBS creates a synergistic effect: the Adam guesthouse restaurant uses the farm's products, which strengthens customer trust; educational activities for schools and families promote loyalty and raise awareness of organic farming; online sales expand the reach beyond the region, while personal contact maintains strong community ties. TBS thus transforms a classic agricultural enterprise into a multifunctional system that combines production, tourism, education, and community into a single sustainable model.

The model implemented by TBS is, as such, a prime example of how an agricultural enterprise can be successful in the face of current economic, ecological, and social challenges. Thanks to vertical integration and the implementation of the principles of the short supply chain (SFSC), TBS has linked production, processing, distribution, agritourism, and education into a single functional system. This approach brings several synergistic effects: it increases the added value of products, strengthens regional identity, supports ecological sustainability and creates stable relationships with customers.

The key to success is TBS's ability to respond to the needs of different customer segments through multi-channel distribution and by building personal relationships based on trust, experience, and education. In addition, the connection with the Adam guesthouse allows the transformation of the farm's products into a gastronomic and tourist experience, making the enterprise a centre of regional development.

TBS proves that agriculture does not have to be an isolated sector but can function as an integrated ecosystem that connects the economy, culture, education, and environment. This model is an inspiration for other rural enterprises seeking a path to sustainability, competitiveness, and social responsibility. In the context of global challenges such as climate change or pressure on food quality, the TBS approach represents a promising direction for the future of the Slovak countryside.

Figure 10 – Business model Canvas

Source: Author

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Slovak University of Agriculture in Nitra (research and product development) Regional suppliers of fruits, herbs and ingredients Local governments and community organisations Customers and visitors as active participants in the system Tourism and agrotourism associations Distribution partners for local sales (markets, restaurants)	Organic cattle breeding (Charolais, Highland Cattle Processing of meat, fruit, chocolate and beer Operation of a farm shop and restaurant Agrotourism and accommodation (Pension Adam, huts) Organisation of cultural and educational events Collaboration with academia and research	TBS bases its philosophy on high-quality, fresh, organically produced food; transparency of origin; personal contact with the customer; experiential accommodation in authentic countryside; support for regional identity and traditions; a sustainable SFSC model with a minimal ecological footprint; and innovative products with high added value.	Personal contact in the store and on the farm Experiential stays and interaction with the farm Educational activities for children and schools Loyal customers and community ties Online communication and e-shop	Residents and customers from the region (within 100 km) (40% share) Families with children looking for experiential accommodation (25% share) Schools and educational institutions (8% share) Customers preferring organic and artisanal products (17% share) Tourists and visitors to the Myjava – Podkylava region (8% share).
	Key Resources Agricultural land and pastures (150 ha) Cattle (approx. 120 cows) Processing plant and craft brewery Agri-Pension Adam and accommodation capacities Human resources – experts, artisans, farm workers TBS brand and customer trust		Channels Farm shop in Podkylava Restaurant and guesthouse Adam Seasonal markets and regional events Online sales via e-shop Personal recommendations and community networks	
Cost Structure Costs of raising and feeding livestock Operation of a processing plant and brewery Salaries of employees and seasonal workers Maintenance and development of infrastructure (guest house, huts, shop) Marketing, distribution and event participation Investments in innovation and cooperation with universities		Revenue Streams Sale of meat and meat products Sale of fruit products, chocolate and beer Income from accommodation and meals Income from agrotourism and educational activities Online sales and special orders Subsidies and grants for rural development and organic farming		

Lessons Learned and next steps to develop a new business model in SFSCs

The successful business models of these nine farms from Poland, the Czech Republic, and Slovakia provide a strategic blueprint for small and medium-sized agricultural enterprises that are struggling against the intense price pressures and strict volume requirements of conventional, long supply chains.

A central lesson is the necessity of escaping the commodity trap through on-farm processing and product finalisation. Selling raw agricultural commodities to wholesalers often leaves farmers with very low profit margins and weak bargaining power. Successful farms capture higher margins by processing their own raw materials into premium, differentiated products. For instance, the Czech farm Nelepeč built its own mini-dairy to process its milk into fresh cheeses and award-winning desserts after industrial dairies refused to pay a fair premium for their organic certification. Similarly, the Slovak farm PEMAK SK shifted from selling bulk poppy seeds to producing cold-pressed poppy oils, chocolates, and natural cosmetics, vastly increasing their products' added value and funding further agricultural innovations. In addition, Farm Jalubí in the Czech Republic sells beef in family packages and is investing in its own meat-cutting plant to bypass external slaughterhouse bottlenecks and fully control meat ageing and quality.

Another crucial takeaway is that eliminating intermediaries allows farms to regain control over pricing while capturing the entire profit margin. By integrating into SFSCs, farms can dictate their own financial destiny and increase their stability. The Polish farm Chrzypsko Małe sells most of its dairy products directly from a designated room in the farmer's basement. Because they do not have to share margins with intermediaries, they can offer high-quality traditional food at prices comparable to or even lower than supermarkets, thereby attracting a highly loyal local customer base. Adámek Family Winery also manages its own distribution by personally delivering wine orders across the country and organizing direct cellar sales, successfully countering the market pressure of cheap imported wines and keeping marketing and logistics costs low.

Furthermore, these farms teach us that in short supply chains, consumers are not just buying calories; they are buying transparency, trust, and a compelling story. Farmers must actively cultivate a community rather than merely processing anonymous transactions. The Polish farm Eko-Zakątek utilizes a Community Supported Agriculture model, selling health baskets of organic vegetables through a seasonal subscription. This model secures upfront financing, shares the risks of the harvest with consumers, and fosters deep engagement through social media groups where farmers and customers share recipes. Similarly, the Slovak farm Madonan explicitly focuses on building a family of customers by heavily investing in education. They use

blogs, videos, and farm excursions to transparently explain the health benefits of their highly digestible A2A2 milk and their organic feeding practices, which fully justify their premium pricing and build immense consumer trust.

Embracing multifunctionality and vertical integration is another proven strategy to boost economic stability and diversify income streams. The Slovak farm TBS represents an example of total vertical integration. The farm controls the entire chain from field to table by combining organic cattle breeding with its own slaughterhouse, fruit processing plant, craft brewery, and the Adam agro-pension and restaurant. This ensures all created value stays within the enterprise while simultaneously boosting regional tourism. Even smaller operations benefit from this approach; the Polish apiary Pasieka Gucio goes beyond selling honey by offering free apitherapy, a therapeutic experience in a specialised wooden beehive house where customers can relax and inhale the hive's microclimate. This unique service creates a deeply enriching experience that conventional supermarkets simply cannot replicate, transforming a standard purchase into a health and wellness event.

Finally, while their products may be traditional and organic, successful farms leverage highly modern, innovative channels to reach their customers efficiently. Pasieka Gucio participates in the Village e-foodbox, an innovative collective e-platform that groups products from multiple farms. This allows urban consumers to buy a wide variety of local foods at once, providing the farm with the reach of a supermarket while maintaining the direct farmer-to-consumer relationship. Likewise, Farm Nelepeč implemented a self-service farm shop to sell its dairy products, allowing the farm to offer continuous access to customers without requiring the farmer to constantly interrupt her work to facilitate a sale. Ultimately, the overarching lesson is that smaller farms cannot compete with industrial agriculture on volume or low prices; instead, they must compete on alterity by offering high-quality, transparently produced food, taking control of processing, and building robust, experience-based relationships with their communities.

To develop a new business model for a farm operating in a SFSC, one can use the Business Model Canvas as a visual and practical blueprint. This methodology allows to map out how the farm will create, deliver, and capture value. Here is a step-by-step guide and blueprint for using the Canvas to transition from a traditional and low-margin commodity model to a customer-centric, high-margin, and high-value model.

Step 1: Set the stage for visual thinking

Do not just write a traditional, text-heavy business plan. Instead, print the Business Model Canvas out (Figure 3) as a large poster and gather your farm team or partners. Using a large surface and sticky notes turns abstract ideas into tangible concepts and creates a shared language for your team to discuss the farm's strategy.

Step 2: Zoom in on the customer

Try to deeply understand the people buying your food. by identifying a manifest customer problem in search of a solution. Identify the specific "jobs" your local customers are trying to get done (e.g., eating healthier, feeding their families), the "pains" they want to avoid (e.g., tasteless supermarket produce, harmful pesticides), and the "gains" they desire (e.g., supporting the local economy, knowing where their food comes from). Outline how your farm's specific products (e.g., seasonal vegetable boxes) act as "pain relievers" and "gain creators" for these local buyers.

Step 3: Develop the Small Farm Blueprint

Use the nine building blocks of the Business Model Canvas to map out the entire farm operation. The right side of the canvas focuses on value creation and the customer, while the left side focuses on farm infrastructure and costs. First, focus on the right side of the canvas:

Define the distinct customer groups you aim to serve (**Customer segments**). Instead of targeting a broad mass market, identify specific, high-value niche audiences. Ask yourself:

- For whom are we creating value?
- Who are our most important customers?
- Is our customer base a mass market, niche market, segmented, or diversified?

Value Proposition is crucial for attracting customers. Move beyond "We sell vegetables/meat" to an integrated experience that solves a customer's desire. Ask yourself:

- What value do we deliver to the customer?
- Which one of our customer's problems are we helping to solve?
- What bundles of products and services are we offering to each Customer Segment?
- Which customer needs are we satisfying?

Identify the most cost-efficient and direct ways your customers want to be reached (**Channels**) via a specific form of SFSC. In an SFSC, this often means by passing traditional retail intermediaries. Effective channels include, e.g., self-service farm shops, social media, community-supported agriculture, or specialised culinary shops. Ask yourself:

- Through which Channels do our Customer Segments want to be reached?
- How are we reaching them now?
- How are our Channels integrated?
- Which ones work best?
- Which ones are most cost-efficient?
- How are we integrating them with customer routines?

Determine how you will interact with your segments (**Customer relationships**) to build loyalty. Shift from transactional sales to personalised relationships through e.g. farm tours, membership clubs, exclusive invitations to seasonal harvest dinners, and direct storytelling. Ask yourself:

- What type of relationship does each of our Customer Segments expect us to establish and maintain with them?
- Which ones have we established?
- How are they integrated with the rest of our business model?
- How costly are they?

And analyse how your new business model will generate a **revenue stream**. Ask yourself:

- For what value are our customers willing to pay?
- For what do they currently pay, and how are they currently paying?
- How would they prefer to pay?
- How much does each Revenue Stream contribute to overall revenues?

The backstage of the Business Model Canvas focuses on the left-hand side of the framework, which is dedicated to farm infrastructure and costs. While the right side focuses on creating value for the customer, the left side outlines exactly what you need to do and what you need to spend to deliver that value.

Key Resources are the most important assets required for the business model to work. Key resources are the critical inputs that allow the farm to create its Value Proposition, reach the local market, maintain customer relationships, and ultimately earn revenues. Ask yourself:

- What Key Resources do the suggested value propositions require?

- What Key Resources do distribution channels, customer relationships, and revenue streams require?

Key Activities are the most important actions you must take to operate successfully. Ask yourself:

- What Key Activities do our Value Propositions require?
- What Key Activities do our Distribution Channels, Customer Relationships, and Revenue streams require?

Very few companies own all their resources or perform every activity themselves. **Key partnerships** block describes the network of suppliers and partners that make the business model work. Ask yourself:

- Who are our Key Partners and who are our key suppliers?
- Which Key Resources are we acquiring from partners?
- Which Key Activities do partners perform?

Cost Structure describes all the most important costs incurred while operating your business model. Creating value, delivering it, and maintaining relationships all cost money. Ask yourself:

- What are the most important costs inherent in our business model?
- Which Key Resources are most expensive?
- Which Key Activities are most expensive?

Step 4: Prototype, Test, and Validate

Do not simply assume the blueprint will work. The sources highly recommend treating your initial canvas as a prototype. Take your assumptions outside and test them with real people. Talk to potential customers at a local market or run a small trial of your delivery service to see if people actually value what you are offering and are willing to pay for it. Validate that your revenue streams will exceed your cost structure before you invest heavily in the new model. If customers aren't interested in a certain crop or delivery method, adjust your Canvas based on what you learn. Once you have validated evidence that your SFSC model works, you can transition into full execution.

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