



Case study: **Madonan**
Healthy food, healthy people

Madonan

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

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 1 - Village Klačany
Source: Facebook profile Klačany



Farms' history, resources, technology and production farms

MADONAN SERVICES Ltd, located in the village of Klačany 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 2 – 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 3 – 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 4 – 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 5 – 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 1 – Business model Canvas
Source: Author

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
<p>Feed suppliers Veterinarians and genetic specialists (A2A2 testing)</p> <p>Technological partners (dairy, processing)</p> <p>Schools, universities and research institutions</p> <p>Partners in agrotourism and SFSC projects</p>	<p>Breeding of Jersey dairy cows</p> <p>Production and processing of A2A2 milk</p> <p>Production of dairy products (yoghurt, cheese, ice cream...)</p> <p>Sales via SFSC (e-shop, distribution points, store)</p> <p>Agrotourism and educational activities</p> <p>Marketing and communication</p> <p>Key Resources</p> <p>Herd of Jersey cows (genetically tested)</p> <p>Own dairy and technology</p> <p>Farm and distribution points</p> <p>Human capital (family, employees)</p> <p>Knowledge and experience (e.g. internships in Italy)</p> <p>Brand and customer trust</p>	<p>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.</p>	<p>Direct communication via social media and in person</p> <p>Open feedback and resolution of suggestions</p> <p>Building a “customer family” community</p> <p>Educational content (videos, excursions, blogs)</p> <p>Channels</p> <p>Shop: www.madonan.sk</p> <p>Distribution points: Kľačany, Bratislava, Poprad</p> <p>Company store (365 days a year)</p> <p>Personal sales on the farm</p> <p>Agrotourism activities and excursions</p>	<p>Customers interested in a healthy lifestyle</p> <p>Families with children (farm visits, camps)</p> <p>People with intolerance to regular milk</p> <p>Schools and educational institutions</p> <p>Local consumers prefer fresh and ethical products</p>

Cost Structure	Revenue Streams
Animal feed and care	Sale of dairy products (milk, cheese, yoghurt, ice cream...)
Energy and technology (including investments)	Revenue from agrotourism (entrance fees, camps, celebrations)
Employees and experts	Educational programs and excursions
Marketing and communication	Direct sales via e-shop and store
Loans and investment repayments (approx. €1.5 million)	
Farm and agritourism facilities maintenance	

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