

Good Practice Example No. 7 - Hungary

Árpád-Agrár Plc.: Sustainable greenhouse horticulture through renewable energy and innovation

Industry:	Horticulture and greenhouse vegetable production
Location:	Csongrád-Csanád County, Hungary
Established in:	1992
Legal form:	Public Limited Company (Plc.)
Business model:	B2B (business to business) and B2C (Business to Consumers)
Core activity:	Sustainable greenhouse vegetable production

Árpád-Agrár Plc., headquartered in Szentes, Csongrád-Csanád County, is one of Hungary's leading horticultural enterprises and a recognized pioneer in sustainable greenhouse vegetable production. Building on the region's long agricultural tradition and unique geothermal resources, the company has developed a highly efficient production system that combines modern technology, renewable energy, and environmentally responsible farming practices. Through continuous investment and innovation, Árpád-Agrár Plc. has become a flagship example of how agricultural enterprises can enhance competitiveness while reducing their environmental footprint.

Harnessing geothermal energy for sustainable production

One of the company's most significant competitive advantages is its extensive use of geothermal energy. The Szentes region possesses rich geothermal resources, which enable the heating of large greenhouse complexes without relying heavily on fossil fuels. By utilizing geothermal water for greenhouse heating, the company significantly reduces energy costs and greenhouse gas emissions while maintaining stable production conditions throughout the year. This renewable energy-based approach demonstrates how local natural resources can be transformed into a strategic advantage, supporting both economic performance and environmental sustainability.

Innovation and efficiency in greenhouse horticulture

Árpád-Agrár Plc. has continuously invested in modern greenhouse technologies that improve productivity, resource efficiency, and product quality. Advanced climate-control systems, irrigation technologies, and integrated production management enable the company to optimize growing conditions while minimizing resource consumption. The controlled greenhouse environment allows for high-quality vegetable production with predictable yields and efficient use of water and nutrients. These technological

innovations contribute to greater resilience against climate variability and help ensure a consistent supply of fresh produce to domestic and international markets.

Supporting regional development and employment

Beyond its production activities, the company plays a significant role in the economic and social development of the region. As one of the major employers in the area, Árpád-Agrár Plc. contributes to local job creation and supports the livelihoods of numerous families in Southern Hungary. The company also strengthens regional supply chains through cooperation with suppliers, service providers, and business partners. By maintaining a strong local presence while competing successfully in national and international markets, the enterprise demonstrates how agricultural businesses can contribute to both regional prosperity and economic stability.

Sustainability and responsible resource management

The company's production model integrates economic efficiency with environmental responsibility. Water-saving irrigation systems, renewable energy utilization, and continuous technological modernization contribute to more sustainable resource management. Greenhouse production also enables more efficient land use compared to conventional field cultivation, allowing higher yields from smaller areas. Through these practices, Árpád-Agrár Plc. demonstrates how intensive agricultural production can be aligned with sustainability objectives while maintaining profitability and long-term business viability.

Contribution to agricultural competitiveness and innovation

The experience of Árpád-Agrár Plc. illustrates how innovation, renewable energy, and strategic resource management can strengthen the competitiveness of agricultural enterprises. The company demonstrates that sustainable production is not merely an environmental objective but also a business strategy capable of improving efficiency, reducing costs, and enhancing resilience. For students and future agricultural professionals, this example highlights the importance of technological innovation, renewable energy utilization, and long-term thinking in building successful and sustainable agricultural businesses.

Source: <https://www.arpad.hu/index.php?lang=hu>