LUKAS PALTANAVIČIUS

Matched with
The Plant Based Foods Institute

Lukas's Story

I grew up in a family of agribusiness professionals and later managed a **$294 million fertilizer portfolio** for a European agribusiness. But the deeper I got into the industry, the more I saw its flaws. Inside a large-scale agricultural inputs company, I saw farmers get pushed to purchase ever-increasing amounts of fertilizers and pesticides, leaving the people who grow our food buried in debt and entrenched in systems that left them with little choice.

I could not accept that as the only way to farm.

Turning to science to understand the root problems with our food systems, I earned an M.S. in Biobased Sciences at **Wageningen University & Research**, which sparked an entrepreneurial idea. To find alternatives to conventional agriculture, my partner and I launched "**Cycle to Farms**," cycling 5,000 miles across Europe, the Middle East, and Africa to document regenerative farming business models and their community impact.
Interviewing 30+ regenerative farmers across 15 countries, I found exactly what I was looking for: profitable, future-proof models that restore soil vitality without placing farmers in debt. This fieldwork ultimately led to an affiliation with the **Massachusetts Institute of Technology**, where I continue analyzing food system innovations.

Now, the question is: how do we bring these insights to the US and change market conditions so American farmers can thrive while restoring nature, strengthening food system resilience, and nourishing communities?

The Proposed Project

The Challenge
The Midwest grows much of the nation's plant proteins, including dry beans, soy, peas, and oats. Yet, we are trapping our farmers in a commodity race. Most of these crops leave the region as

inexpensive, raw ingredients, meaning the value-added processing, the jobs, and the profits are captured by outside markets.

Why?
Because the region's agricultural infrastructure, from subsidies and crop insurance to grain elevators, is engineered almost exclusively to support bulk commodities like corn and soy, most of which leaves the region as animal feed. This infrastructure dominance puts food-grade crops into an uneven playing field and makes them a risky bet for growers. The result is a dual crisis: plant-based foods that rely on these raw ingredients remain too expensive for most consumers, and rural communities miss out on the income their own land and physical labor generate.

The Solution
To break this bottleneck, the Plant Based Foods Institute (PBFI) is aligning agriculture, public policy, and regional markets. The goal is simple, yet ambitious: build a localized plant protein supply chain that takes nourishing homegrown crops off the bulk-commodity track and onto consumer plates, keeping the processing jobs and the profits exactly where they belong: in the rural communities where these crops are grown.

The Project
Influencing producer economics is one of the most important levers for shifting how successfully plant-based foods are positioned in the U.S. As a fellow with the Plant Based Foods Institute, my mission is to pull that lever by building the definitive financial blueprint that de-risks growers' ability to tap into plant-based markets. We aren't trying to convince farmers with environmental arguments; we are answering the core question that drives their operating decisions: **Under what exact conditions does growing the crops for plant-based foods make undeniable financial sense?**

Focusing on four agricultural powerhouses (Minnesota, Illinois, Michigan, and North Dakota), I will be developing crop-by-crop business cases for three priority pathways: **food-grade soybeans, dry edible beans, and dry peas**. Combining targeted research, economic modeling, and direct interviews, this project maps the exact contract structures, revenue potential, and processing needs required to make the switch.

The Roadmap to Execution
Month 1: Foundation & Market Mapping – Isolate the core financial variables, confirm data baselines across the three crop pathways, and mobilize a targeted network of local growers, regional processors, and manufacturers.

Month 3: Bottleneck Diagnosis – Complete deep-dive stakeholder interviews to pinpoint exactly where weak contracts, infrastructure gaps, or policy hurdles are stalling market entry.

Month 6: Actionable Deliverables – Deliver finalized crop-by-crop business cases with explicit, data-backed blueprints for contract structures, localized processing hubs, and supportive state policies.

The Potential Impact

1. **Shifting the Narrative:** We aim to completely change how plant proteins and plant-based foods are understood by US food systems actors. By replacing lifestyle rhetoric with hard financial data, this project reframes plant-based agriculture from a consumer trend into an engine for durable economic growth.
2. **A Realistic Path for Farmers:** We provide growers empirical, evidence-based data to move into higher-value, food-grade markets with confidence. Stronger contract structures offer a reliable, higher-margin alternative to volatile commodity feed markets.
3. **Income for Local Communities:** We can stop the economic drain of raw biomass. Instead of exporting cheap commodities, rural Midwest communities retain the value-added processing margins, the infrastructure, and the jobs that come with them.