



Fage International S.A.

Navigating Supply Chain Disruption

Challenges, Risks & Opportunities



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Fage Yogurt Factory



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01

Executive Summary & Company Background





Executive Summary



Global dairy producer with complex supply chain

Fage operates internationally (Greece, US, Europe) and depends on a robust supply chain to deliver perishable products worldwide.



Multiple disruptions in the last decades

Faced geopolitical upheaval (Greek crisis), logistical challenges (COVID-19), regulatory hurdles (new factory opposition), and environmental incidents (contaminated feed).



Significant risks identified

Disruptions threaten market access, increase costs, and could damage brand reputation if not managed – highlighting the strategic importance of resilience.



Resilience-building responses

Fage has taken steps like relocating its HQ for stability, securing alternative suppliers, investing in a new Netherlands plant, and adopting digital supply chain tools to adapt and thrive.



Industry context

Peers in the food industry reinforce these lessons – supply chain resilience is now a critical success factor (e.g., competitors diversifying production, implementing advanced planning systems).

Company Background

Heritage & Growth

Founded in 1926 in Athens as a family dairy shop; grew into a global Greek yogurt leader while remaining family-owned (Filippou family)

Product Portfolio

Known for its “FAGE Total” Greek strained yogurt; also produces milk, cheeses, and other dairy products with a reputation for quality.



Corporate Structure

Moved headquarters to Luxembourg in 2012 to mitigate Greek financial crisis risks (ensuring stable financing and economic environment).

Global Footprint

Major production in Greece (original plants) and USA (state-of-the-art yogurt plant in New York since 2008) to serve North America. Exports to ~30 countries, with key markets in the US, UK, and Italy.

Expansion Plans

Investing €150 million in a new factory in Hoogeveen, Netherlands (opening 2024) to add 40,000 tons of yogurt capacity and be closer to European milk supply and customers.

02

Supply Chain Disruption

Overview & Examples



Key Challenges Faced by Fage



Greek Financial Crisis (2010–2012)

Home-country economic meltdown **threatened** Fage's access to **financing** and **stable operations**.



Response

Fage relocated its corporate domicile to **Luxembourg** to safeguard financial stability, ensuring the supply chain had necessary capital and a stable currency (eurozone security).



EU Expansion Setback (2016–2020)

Fage's plan for a major new yogurt plant in Luxembourg encountered **intense local opposition** on environmental grounds



Response

Permitting delays and community pushback forced Fage to **cancel** the **project**, postponing its capacity expansion in Europe. (This gap later prompted the decision to build in the Netherlands.)



Key Challenges Faced by Fage



COVID-19 Pandemic (2020)

Global **lockdowns** and **transport restrictions** disrupted logistics



Response

Fage had to navigate reduced trucking capacity and **shifting demand** (more retail, less foodservice) with **agile production scheduling**. Challenges included ensuring milk supply amid movement restrictions and keeping workers safe in plants.(eurozone security).



War in Ukraine (2022)

Geopolitical conflict triggered a **spike** in **costs** for cow feed, energy, & packaging materials and caused regional supply bottlenecks.



Response

European dairy supply chains saw input prices soar and some export routes complicated. Fage faced higher production costs and the **need to adjust pricing and sourcing (seeking alternative suppliers for grain/feed, etc.)**

(This gap later prompted the decision to build in the Netherlands.)



Key Challenges Faced by Fage



Food Safety Incident (1999)

The **Belgian dioxin crisis** contaminated animal feed in Europe, affecting dairy farms.



Response

Fage had to **dispose of potentially tainted milk** and quickly secure safe milk sources to continue yogurt production, demonstrating **early crisis management** to protect consumers.



03

Strategic & Operational Risks

Risks Analysis

Risks Type

Analysis

Market & Revenue Risk

Failure to deliver products (due to a disruption) can result in lost sales and erosion of market share. Retailers might replace missing Fage products with competitors' brands, making it hard to regain shelf space. Maintaining reliable supply is thus critical to Fage's market strategy.

Cost & Margin Risk

Sudden increases in input costs (raw milk, fuel, packaging) or expensive workarounds (like emergency air freight) can squeeze profit margins. Fage faces limits in raising consumer prices due to competition, so supply chain inefficiencies or volatility directly threaten profitability.

Concentration Risk

Heavy reliance on single facilities or regions (e.g., one Greek plant or one set of local suppliers) means a localized disruption (natural disaster, strike, or local outage) could halt global supply. A lack of redundancy was a strategic risk Fage recognized, hence building a new plant to diversify production

Operational Disruption Risk

Interruptions in supply chain logistics (port delays, truck driver shortages) can lead to production slowdowns or product spoilage. For instance, if export shipments are delayed at a border, yogurt may spoil due to shelf-life limits, causing waste and shortages downstream.

Quality & Compliance Risk

Any contamination in inputs or production (e.g., a quality control failure) can force product recalls. This not only incurs direct costs (replacing inventory, potential liabilities) but also a reputational hit – trust in Fage's brand could decline, impacting long-term sales. Fage mitigates this with strict quality checks and supplier standards, but the risk is never zero (as seen in industry examples like Chobani's recall)



04

Opportunities & Strategic Response

Strengthening the Supply Chain



- Leverage AI & Analytics
- Demand Prediction
- Proactive Production Adjustments
- IoT Sensors
- Blockchain Traceability



- Supply Chain Integration
- GS1 GDSN Adoption
- Control Tower System
- Digital Supplier Collaboration



- Geographic Diversification
- New Netherlands Plant
- Multi-Country Sourcing
- Safety Stock Strategy
- Business Continuity Insurance



- Supplier Partnerships
- Secure Milk Supply
- Logistics Collaboration
- Industry Consortia

For FAGE yogurt, we start with the *best milk.*



We only add our very own *blend of cultures* passed down from generation to generation.



The result? Our signature *rich & creamy yogurt*, that's as good for you as it is delicious.



05

Comparative Industry Insights



Comparative Industry Insights

Peers' Resilience Strategies

Production Diversification

Global plant networks to localize supply.

Supplier Risk Assessments

Systematic evaluation of supplier vulnerabilities.

Dual Sourcing

Multiple suppliers for key ingredients to ensure continuity.

Contingency Inventory

Buffer stocks to minimize stockouts.

Proven Success

Helped Danone and Nestlé navigate recent disruptions with fewer shortages.

Chobani Case

Rapid Growth Pitfall

Fast expansion without strong operations management.

Supply Chain Failures

Overbuilt, under-optimized factory, weak distribution

Severe Impact

Lost market share and financial setbacks.

Turnaround Strategy

Hired supply chain experts, saved in procurement saved \$10M, and tightened quality controls.

Key Lesson

Even disruptors can fail without supply chain excellence —operational expertise and risk management are critical.

Comparative Industry Insights

Post-2020 Industry Trend

Resilience Focus

Post-2020 disruptions made resilience a top industry priority.

Investment Trends

Companies invest in real-time visibility and supply chain flexibility.

Example - Unilever

Set up control towers for global commodity monitoring during COVID.

Example - Walmart

Pushed suppliers to improve on-time delivery using advanced logistics tech.

Key Insight

Supply chain has become a strategic differentiator, not just a back-office function.

Benchmarking Fage

Fage's Strength

Smaller but highly agile compared to larger competitors.

Proven Agility

Quick shift to the Netherlands after Luxembourg's rejection.

Opportunity to Improve

Can adopt best practices from larger firms (e.g., Nestlé's risk management, Danone's multi-local sourcing).

Strategic Goal

Achieve the right balance between efficiency and redundancy, tailored to Fage's size and operations.



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Recommendations & Conclusion

Fage's Response to Supply Chain Disruptions

Fage International S.A. has demonstrated both **vulnerability and adaptability** in the face of major supply chain disruptions – from geopolitical shocks (e.g., the Greek crisis) to operational incidents like supply contamination. Through decisive actions such as:

- **relocating its financial base abroad**
- **securing alternative suppliers**
- **investing in new production capabilities**



Fage's Supply Chain Resilience

Fage has mitigated immediate risks and laid the groundwork for a **more resilient and agile supply chain**.

However, as global volatility persists (pandemics, conflicts, climate change), **resilience must be treated as an ongoing strategic priority**. It is not a one-time fix.

Fage's recent moves towards **regional diversification** (e.g., the Netherlands facility) and **digital supply chain integration** are promising steps. These efforts reduce over-reliance on any single location and enhance overall agility.



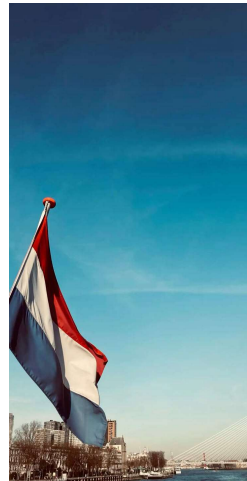
"It's not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change."

—Charles Darwin

Fage's Supply Chain: Strategic Next Steps

1. Finalize & Leverage the New EU Production Hub (Netherlands)

- Ensure timely launch of the Netherlands facility
- Use as a strategic redundancy for Greek operations
- Set clear load- balancing contingency plans
- Assess future mini-hubs in Asia or other regions



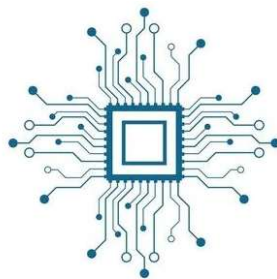
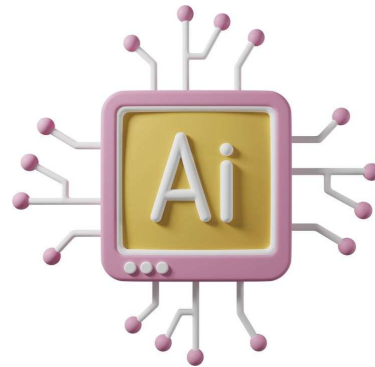
2. Diversify & Secure Supplier Base

- Broaden milk sourcing (Greece, Benelux, Germany)
- Use supply contracts with quality & backup clauses
- Identify and qualify dual suppliers for key materials
- Increase safety stock for long-lead or critical items

Fage's Supply Chain: Strategic Next Steps

3. Invest in Smart Planning Tools (AI/ML)

- Implement integrated supply chain planning systems
- Run scenario simulations ("what if" events)
- Include external data (weather, commodity prices, geopolitics)
- Improve forecasting accuracy and decision speed



4. Build a Real-Time Control Tower

- Centralized dashboard for global supply chain visibility
- IoT sensors for tracking temperature, location, etc.
- Receive early alerts on delays or issues
- Enable quick corrective actions across logistics



Fage's Supply Chain: Strategic Next Steps

5. Strengthen Risk Management & Scenario Drills

- Make risk management part of corporate strategy
- Assign a Supply Chain Risk Officer or task force
- Run scenario drills (e.g., border closures, natural disasters)
- Develop and document contingency playbooks



6. Combine Quality & Sustainability Focus

- Tighten quality controls and increase supplier audits
- Reduce carbon footprint in logistics and production
 - Support regenerative agriculture among milk suppliers
- Sustainability = brand value + operational resilience

7. Institutionalize Learning & Continuous Improvement

- Conduct post-event reviews after disruptions
- Encourage employees to report risks or suggest ideas
- Track industry best practices and adopt innovations
- Adapt continuously to evolving risks (e.g., cyber threats, climate)



Conclusion



Resilience as a Strategic Imperative

Fage International S.A.'s evolving supply chain strategy reflects a broader understanding that resilience is not a fixed outcome, but a dynamic, strategic capability. In an era of constant disruption, the ability to anticipate, absorb, and adapt to shocks has become essential for business continuity.



Leveraging Experience with Innovation

By combining operational expertise with data-driven planning tools, regional diversification, and stronger supplier collaboration, Fage is transforming past lessons into forward-looking action. This approach enhances both flexibility and responsiveness across its global value chain.



Ensuring Quality and Continuity in a Volatile World

In the dairy industry—where freshness, safety, and availability are critical—supply chain robustness directly impacts brand reliability and consumer trust. Fage's investment in visibility, risk planning, and sustainability safeguards product integrity under adverse conditions.



Positioning for Long-Term Success

Ultimately, a resilient supply chain enables Fage to withstand geopolitical tensions, environmental risks, and market volatility, while continuing to deliver its "Plain Extraordinary" products. This capability will be a cornerstone of sustained growth, operational excellence, and global competitiveness in the years ahead.

Our team



Anagnostopoulou Sofia



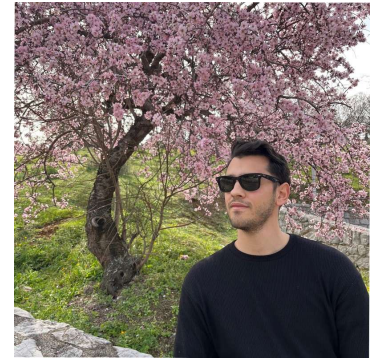
Konstantinopoulou Charis



Kouvas Spyros



Maros Grigoris



Tsampras Alexander



Thanks!

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