



## Overview with **Case study**

Disruptive Innovation proven to address  
**Consumer Product Safety** and **Improve COGS**

You can have BOTH!



# It's all about the **MATERIAL FLOW**

## Executive Summary

ThinkIQ is a thought leader and technology driver in supply chain intelligence. The company uniquely focuses on providing end-to-end traceability of materials as they move through complex supply chains. It does so with an innovative software platform that leverages existing data (traditional IT and IoT), advanced algorithms combined with semantic modeling to automatically detect physical material movements. Traceability data is then used as the “backbone” to connect existing disparate systems and allow correlations that uncover inefficiencies that are

hidden in the supply chain. We help organizations reduce RISK on both product safety and brand protection while improving your COGS.

- Risk reduction - verifying the origin, quality and safety of the materials that go into their finished products.
- COGS improvement - understanding material relationships in procurement to smarter manufacturing, reducing waste, improve SKU profitability, efficiency of manufacturing and operational processes.

## Delivering Digital Transformation Across the Value Chain

### COGS Impact

- Correlation & Visibility
  - Intelligent correlation of supply chain events
- COGS Reduction- 1%
  - Reduce Waste
  - High Level Granularity

### Procurement Impact

- Smarter Purchasing mapped to inventory needs
  - Procurement knows about how their suppliers are performing
  - Procurement understands their impact on production
- Enable granular planning

### Quality Impact

- How quality measurements propagate through your supply chain
- Trusted and consistent supply chain
- Integrity in your mfg process
- Fewer product recalls







## Proven Hard & Soft Benefits

**Via enabling an organization to have a better understanding & correlations of your overall Supply Chain material flow will unlock the supply chain waste to reduce COGS (by Millions and < 6-month ROI).**

### Sales and Marketing

- Consumer Trust (Full transparency)
- Brand Protection (Example – a few identified Risk events blocked from hitting the consumer)
- Product Risk (full traceability to meet FSMA)
- Consumer relationships gained (Example – consumers scanning product for transparency enables companies to capture this consumer data blocked by most Big Box retailers)

### Consumer Safety

- Traceability for all – batches, blending and mixing is very difficult to track in a supply chain and create Risk alerts to catch issues before they hit the consumer
- Transparency to all employees via traceability they can believe and have access to up and down the supply chain
- Transparency to Consumers: If your employees believe it, the customer will believe it too
- Recalls reduced or eliminated (Example – 99.99% recall reduction)

### Smart Procurement

- Improved SKU profitability by relating product quality and yields to raw material grades
- SKU Profitability - Identify buy/sell opportunities with a product family

### Smart Manufacturing

- Improved Efficiencies (example, a better understanding of raw material characteristics, grade etc., enabled line efficiencies to go from 50% to high 80%)
- Correlations to purchasing enables more recipes per sku based on profitability
- Reduced Labor
- Quality – improved product quality

### Supply Chain Management

- Enabling a coordinated supply chain with shared KPI's across the silos of your business, SC team members are focused on Material Flow thru their organization vs silo'd KPI's (Example: Procurement team, Product team and Manufacturing working together to improve material flow, yields and profits.)

### Sustainability

- Energy as part of every material movement can be captured or implied, enabling an organization to understand their carbon footprint as material go thru their supply chain
- Reduced Errors & Labor (Example this tracked info can be communicated to your sustainability reporting system used for corporate tracking)



## Case Study

### Global Consumer Packaged Goods Manufacturer Uses ThinkIQ to Prevent Product Recalls and Improve Operational Processes, Saving Over \$30M

One of the world's leading packaged goods manufacturers became the first company to introduce a gluten-free version of a major, national branded food product in 2015. Later that same year, a manufacturing error occurred at one of the plants, contaminating the new product line with gluten. The issue went undetected for more than two weeks. As a result, a number of consumers with Celiac disease became ill after eating the product. Once the problem was discovered, the manufacturer was required to recall 17 days of production resulting in liability to consumers, lost sales, impact to production and lost time to recover.

**Problem:** The company needed a fail-proof way to detect gluten contamination throughout their large, distributed supply chain before moving forward with production. The manufacturer's traditional track and trace methods for monitoring certain characteristics of a product, such as the presence of an allergen, were not only ineffective but expensive. It was essential for the manufacturer to adopt a new approach and technology that could provide an advanced level of traceability and insight into the real-time movement of material.



**Solution:** The manufacturer selected ThinkIQ's cloud-based platform, which automatically deduces the genealogy of raw materials using existing data and new information collected by IoT sensors. The ThinkIQ solution incorporates several modern technologies, including the Internet of Things, big data analytics and machine learning, to deliver valuable and actionable information that can be used to solve complex business challenges.





## ERP Costing Highly Aggregated

Complemented by  
**ThinkIQ**  
Material Ledger

Unlocking Hidden \$\$ via Material Balance  
insight and relationships across your Supply  
Chain

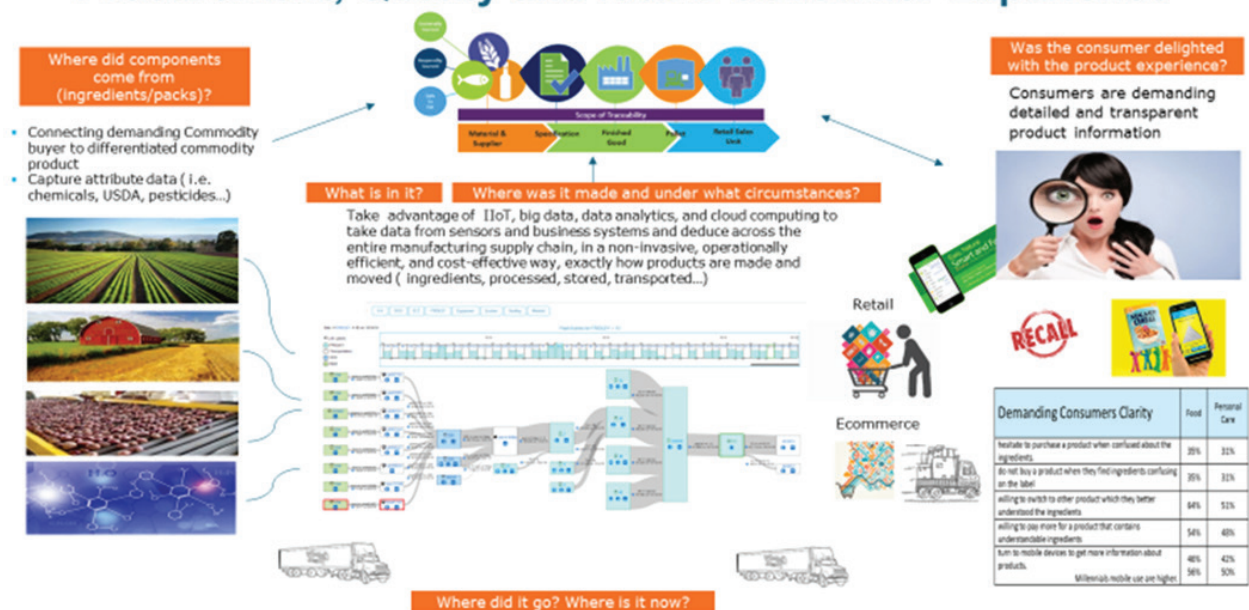
Buy   Plan   Move   Make   Move   Sell

**Primary Benefits:** As a result of implementing ThinkIQ, the manufacturer can detect if a contamination event has occurred in their food product at any point throughout the extended supply chain and manufacturing process. The company now has an unprecedented level of confidence in their ability to protect the health of consumers and avoid costly product recalls.

**Secondary Benefits:** The same solution from ThinkIQ was used to drive operational improvements. The manufacturer made changes to the company's procurement and manufacturing processes based on materials traceability data generated by ThinkIQ. As a result, during the first year after implementing the ThinkIQ platform, the manufacturer saved more than \$30M, a figure the company publicly shared in 2017.



## ThinkIQ answers the toughest questions effecting COGS, Procurement, Quality and future Consumer Experience



## About ThinkIQ

ThinkIQ, a leader in Transformational Intelligence for manufacturers, delivers unprecedented material traceability and insight into ways to improve yield, quality, safety, compliance and brand confidence. Our fact-based granular and data-centric contextualized view of material flows and related provenance attribute data integrates into existing IoT infrastructures and

crosses supply chains to manufacturing processes and beyond. Our customers have saved \$10's of millions by identifying waste and underperforming assets, as well as reducing warranty reserves for quality and safety issues. ThinkIQ is a privately held company headquartered in Aliso Viejo, CA.