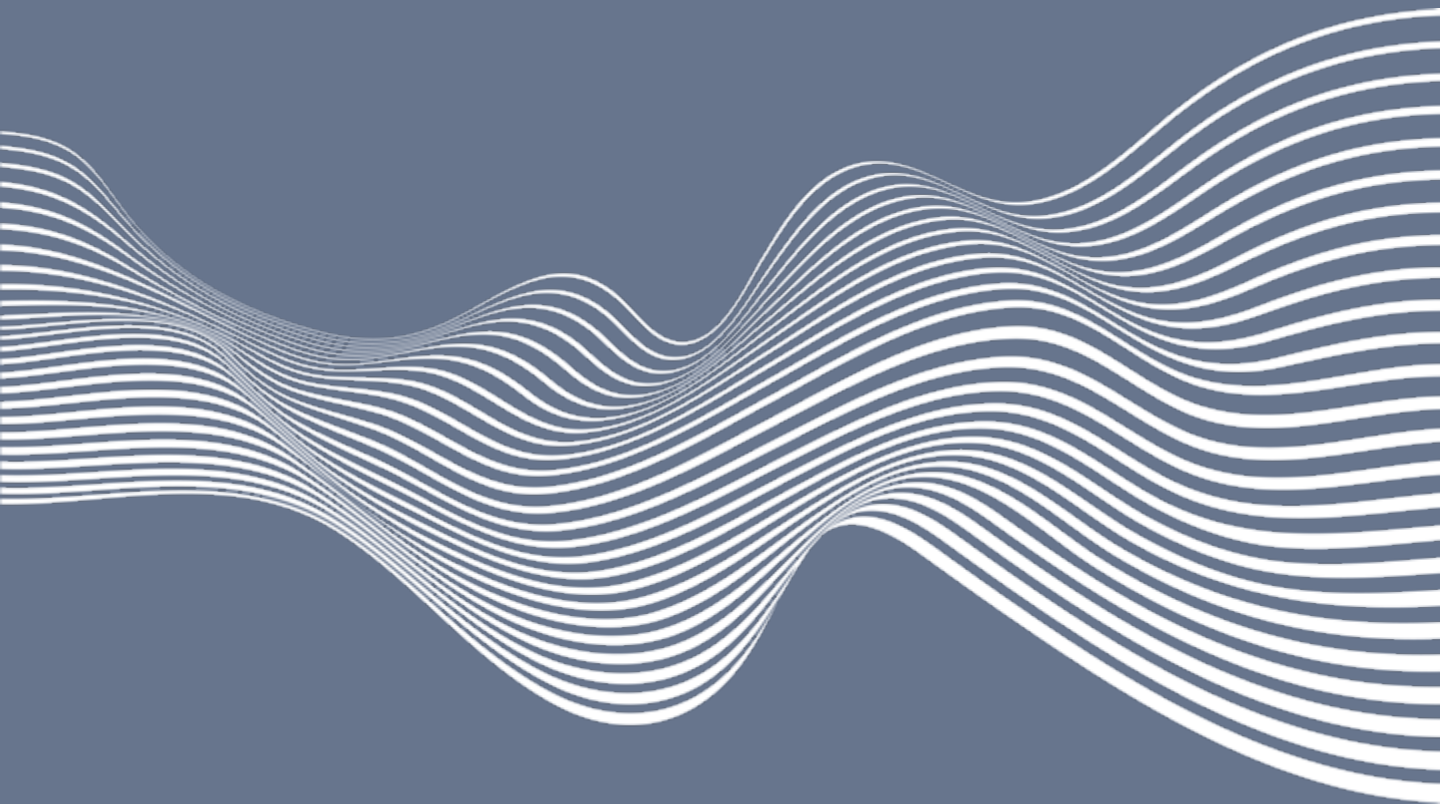




# Creating Sustained Value From Inventory Optimization: Insights From A Dried Fruits & Nuts Manufacturer

November 2018





# About Kelmic

**Kelmic Consulting helps organizations capture opportunities and dramatically improve their operations.**

Helping our clients improve their operations since 2002

We partner with our clients to drive bottom-line impact by addressing and dramatically improving efficiencies in People, Processes, and Property. Our exceptional people draw upon more than 100 years of combined experience to bring you the right perspectives and expertise to help you tackle complex challenges and realize your strategic ambitions.



# Background

## About the Client

- Leading packager of nut and dried fruit products
- Over \$170 million annual revenue
- Located in 4 facilities in BC, ON and WA
- 110 million lb annual processed volume across 25+ production lines
- Over 10,000 pallet position warehouse requirement

*“The detailed feasibility study showed potential to reduce inventory by approximately 30%...”*

This leading North American nut and dried fruit packager had been recently acquired by a private equity firm.

Scope for rationalizing their facilities had been identified provided manufacturing and warehousing could fit into a single location.

Operations in BC were located in two facilities approximately 20 km apart. The larger facility contained several underutilized or redundant production lines and had a poor layout.

Warehousing was utilizing old reach trucks and counter-balanced equipment in wide-aisle, single and double-deep applications.

The engagement began with a feasibility study, including development of a proposed layout and space requirements based on both improved workflow and a calculation of potential inventory rationalization with a warehouse redesign. Kelmic then undertook the engagement to manage the entire process of relocation, warehouse re-racking, inventory rationalization, MRP improvement and implementation of a Warehouse Management System.

Through redesign of warehousing layouts using narrow-aisle technology (non-guided), all snacking nuts, baking nuts and fruit product lines could then be accommodated along with 8,500 pallets of storage. This, combined with the relocation other manufacturing lines to the US allowed the closure of one facility saving over \$1.2 million in annual rent in addition to millions in redundant operating costs.

Critical to success was achieving a minimum of 20% reduction in inventory space requirements (2,300 bins) without sacrificing product availability to ensure a fit.

The detailed feasibility study showed potential to reduce inventory by approximately 30% through improved forecasting, implementation of modified safety stock levels with appropriate replenishment protocols, and management and implementation of LEAN processes.

The feasibility phase estimated project costs and schedules and justified the project go-ahead as a result of a payback period of less than 13 months, driven by labor rationalization and inventory holding cost reduction only (not accounting for potential savings from real estate rentals).

# Implemented Solution

The project implementation entailed development and installation of a comprehensive inventory management process with systems to support it. A core focus of this new process was development of appropriate safety stock levels for all products based on variance in past demand and improved future demand forecasts. Additionally, installing improved forecasting techniques and constraining resulting forecasts to overall market growth prevented overstocking. A new WMS and MRP system were implemented resulting in a 28% reduction to inventory through improved replenishment protocols reducing inventory financing costs more than \$500,000 per year.

Kelmic also redesigned the warehouse layout. The use of narrow aisle equipment allowed densification, driving a significant reduction in space requirements. This allowed for accommodation of over 8,500 pallets in the available space. Combining the densified storage with the reduced requirement for inventory to satisfy customer demand allowed all equipment and inventory to be accommodated in a single facility, thereby enabling the closure of the second property. Savings from reducing real estate costs as well as duplicated management and labor exceeded \$3.1 million per year.

The forklift equipment was replaced and a FML arranged for new, narrow aisle equipment at an on-going cost significantly less than the existing cost of equipment ownership.

The project was fast tracked and completed on time and on budget with no disruption to customer service.

Kelmic's implemented solution allowed for inventory reduction in excess of

# 28%



# Key Results Achieved

- Inventory (raw & FG) reduced by over 28% with improved fill rates
- Increased density with improved warehouse layout ensured fit into a single facility saving over \$3.1 million per year
- Revised facility layout resulted in over 8,500 pallet positions and all production equipment accommodated in single 150,000 sq ft facility
- Project payback in 11 months, including capital cost of project

## ROI

11:1

**28%**  
inventory

Reduction

**120k**  
sq ft

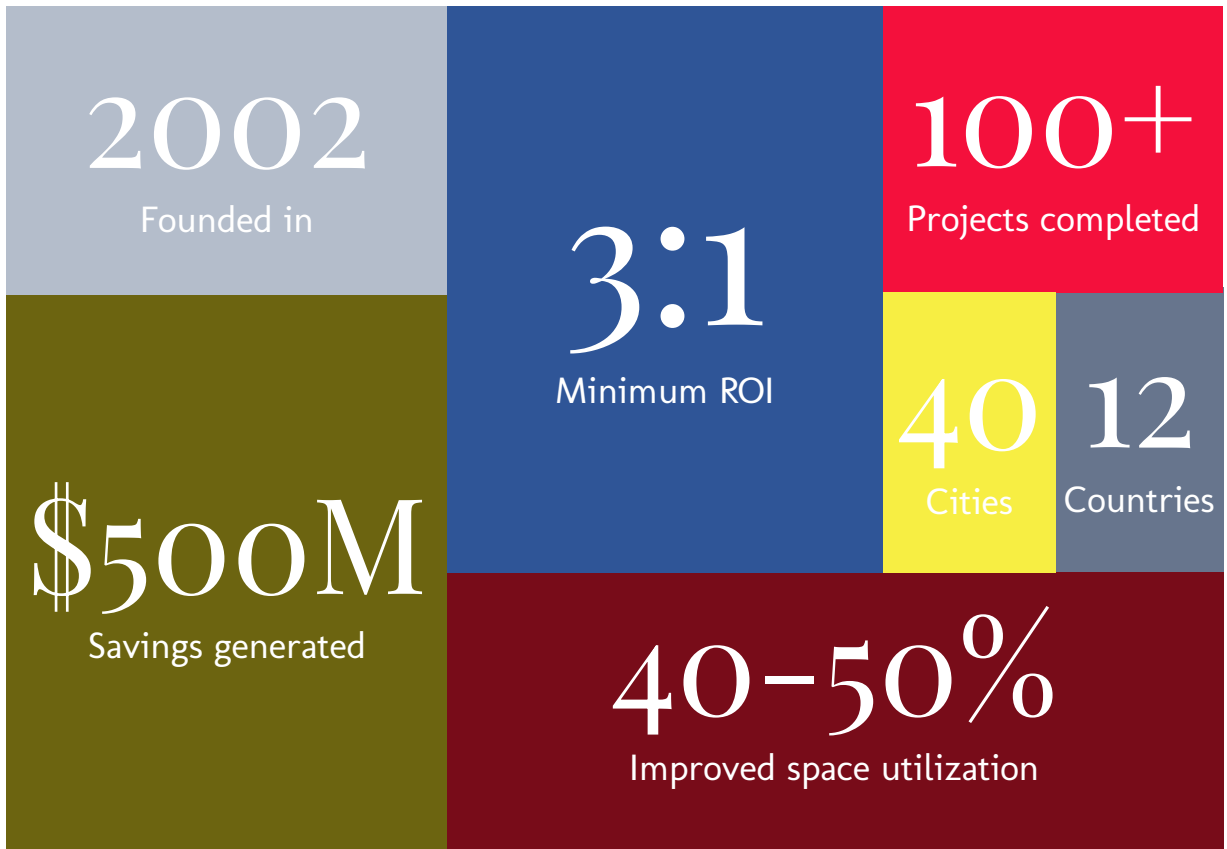
Of real estate saved

**11**  
months

Capital payback



# Kelmic at a Glance





November 2019  
Copyright © Kelmic Consulting

[www.kelmic-consulting.com](http://www.kelmic-consulting.com)