

CASE STUDY

Supply Chain Network Design

Fortune 50 Manufacturer

PROBLEM / CHALLENGE

A division of a Fortune 50 manufacturer was preparing their supply chain network strategy for their divestiture from the parent company. The business needed to analyze a variety of supply chain footprint options to support the planned growth while exiting parent-company facilities at pre-determined time periods. The global supply chain consisted of raw material sourcing, polymer manufacturing, compounding, and warehousing.

BASELINE / CURRENT STATE

We gathered detailed current state information. Specifically, we needed to understand current capacities, historical volumes, and historical and forecasted demand. We also categorized polymer production and compounding based on logical manufacturing units which tied to specific production assets.

Identify Candidate Locations

Asian Manufacturer and Tollers

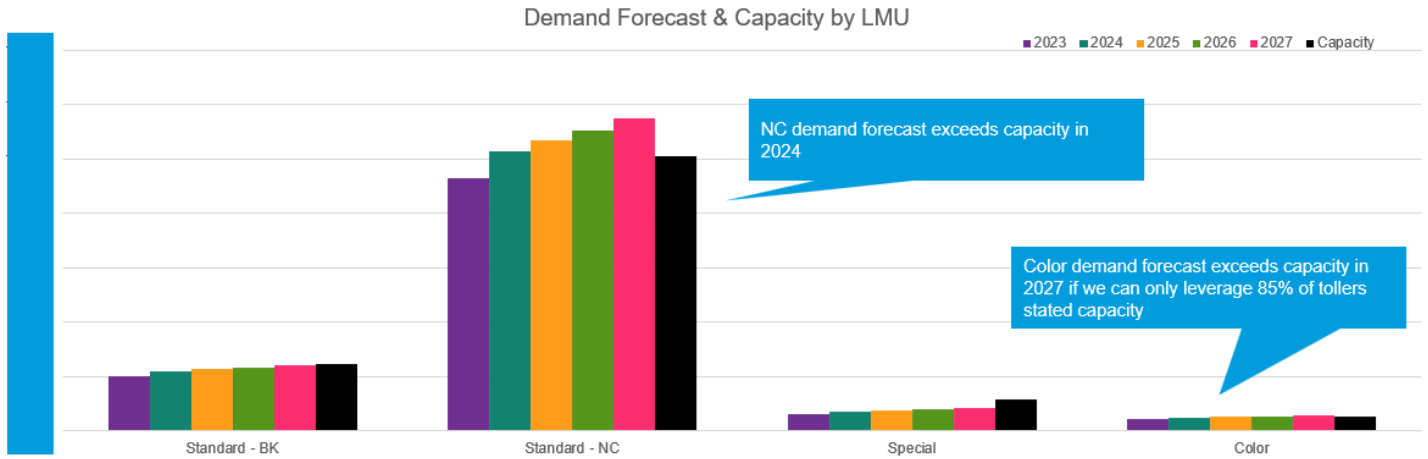
- The division team was facing reduced compounding capacity as well as strong forecasted demand growth. The largest gap from production capacity to forecasted demand was in the Asian Market
- We worked to identify a variety of new compounding capacity through:
 - Tollers / 3rd party compounders
 - Acquisition Targets
 - Greenfield Sites

Production Constraints / Asset Utilization

Align Production Assets with Part Groupings

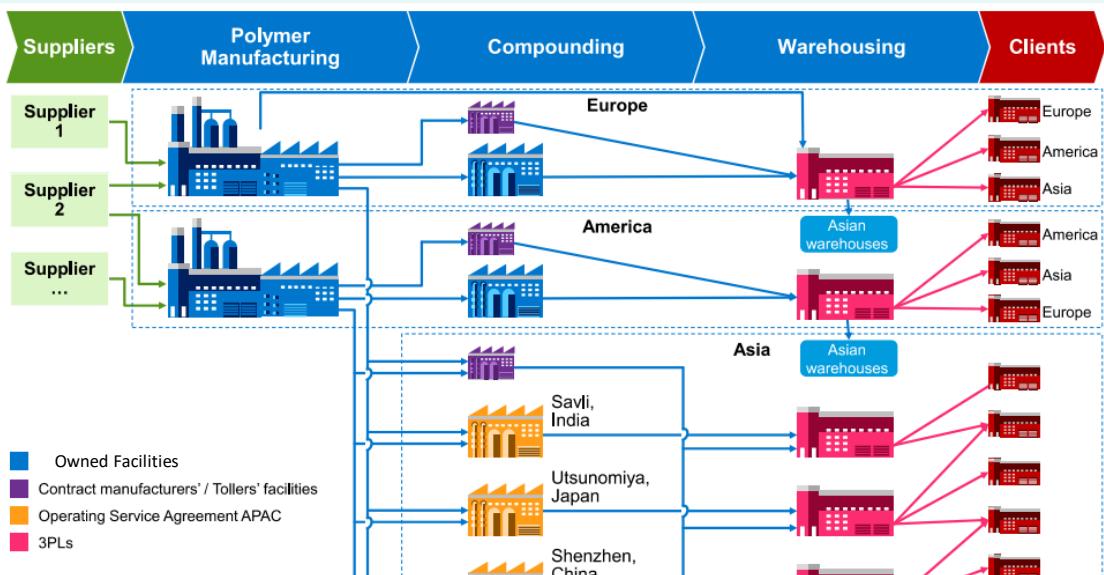
- We analyzed capacity manuals to understand production capacity by product
- Several assets could produce a wide range of product groups with significant variation in throughput speed by product
- Developed a model to enable scenario analysis across various supply chain footprints

■ We identified Constraints in the Current Network



Note: the capacity shown on the chart reflect 85% of the current network's capacity

■ Supply Chain Network - Visual



■ Defined Metrics for Scenario Comparison

- Capital Expenditure
- % of Finished Goods Compounded Locally
- Reputation Risk
- Intellectual Property Risk
- Impact to Net Working Capital
- Controllable Fixed Costs
- Tolling Premium

■ SCENARIO DEVELOPMENT:

- We developed multiple scenarios to understand the options available to the team and the tradeoffs they provided.
- Scenarios ranged from maximizing current capacity to maximizing production in a region for a region.

■ DIFFICULTIES ENCOUNTERED:

- Some of the key decision drivers were not easily converted into a financial decision
- Specifically Intellectual Property risk and Reputation Risk were more strategic decisions for the team than financial

Reference: Global Operations Functional Leader,
Name and email can be provided upon request

RESULTS

- The team had a strong understanding of their options as they exited the parent company's business.
- The new leadership leveraged the study to inform their supply chain footprint decision