

# Network Optimization



## Capgemini Analytics

**Network Optimization analytics aims to produce smart supply chains, designed for flexibility and ability to reduce risks, optimize costs and scale up to best-in-class service.**

Network Optimization enables an organization to provide the best product to the right customer in the shortest time at the minimum cost – both for present and the future.

Capgemini's supply chain analytics competence means we are well placed to help you analyze your current supply chain footprint, demand patterns, cost to serve and service levels.

With our experience and insights into specific industries, we can also help align your network to future demand and risks.

## Challenges in Network Optimization

In today's dynamic environment, the supply chain network needs to be both flexible and robust if it is to support a global strategy. The supply chain must be geared to provide the highest possible service levels at the lowest possible cost along with facing fluctuations in demand patterns. With high competition it is imperative for organizations to evaluate their network structure periodically.

Reconfiguration of the supply chain network includes changes which require huge capex like opening a new production facility or warehouse, reorganization of the complete logistics arm, etc. Such strategic changes need to be backed by an exhaustive and in-depth analysis of all possible scenarios.

## Our Approach

Based on your transaction data and network parameters we analyze production and shipment volumes along with freight and supply chain costs for the current network structure.

We analyze the "as is" network in terms of cost to serve the demand and service levels. We evaluate greenfield scenarios without considering constraints and cover all foreseeable market dynamics, and compare them to identify the best option. After choosing the relevant unconstrained scenarios we apply the foreseeable constraints to set to drive the best in class solutions from the given scenarios.

The cost of adopting each scenario is also evaluated to derive the relative cost-benefit sensitivity of the various alternatives.

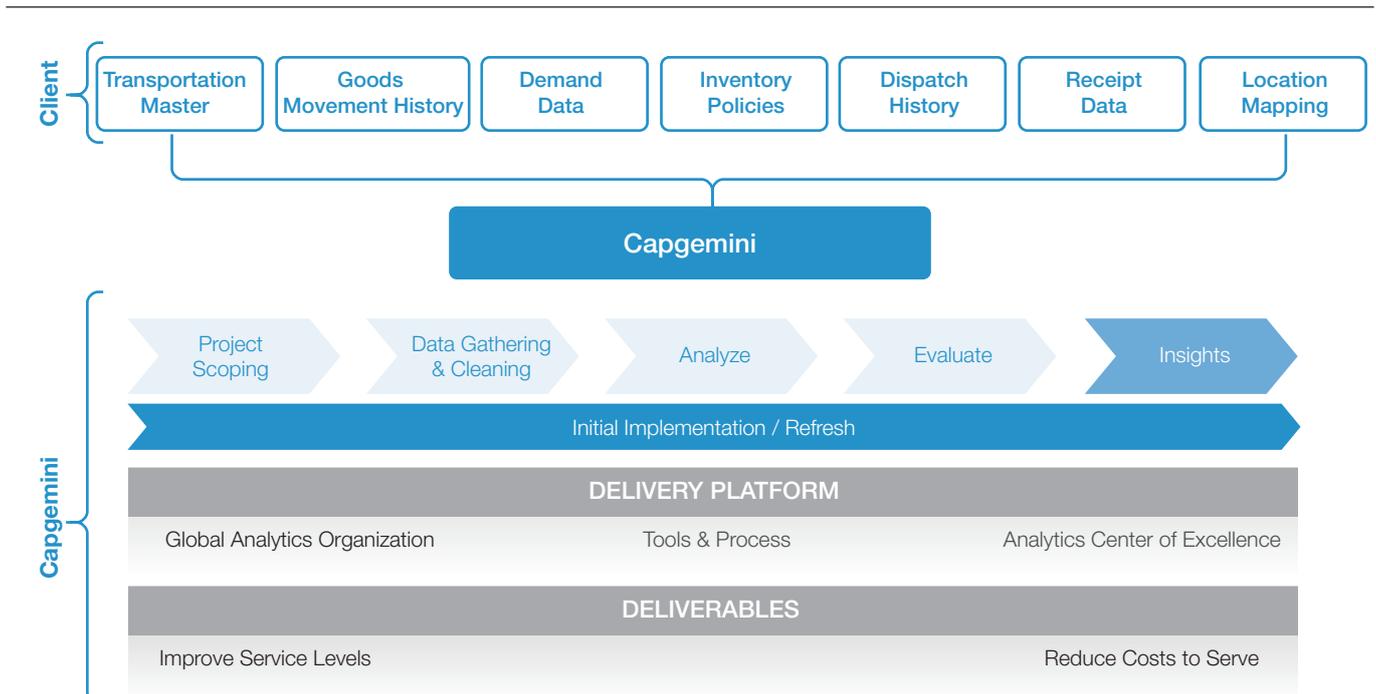
For any network design scenario that we identify, we provide an optimum inventory policy and replenishment strategy at all stocking points.

We also design a phased approach to ramping up from the current supply chain network to the desired state.

## Key Deliverables

Capgemini's supply chain analytics team can provide all the analysis and insights you need for network reconfiguration. We can:

- Improve service levels
- Reduce costs to serve



## Success Story

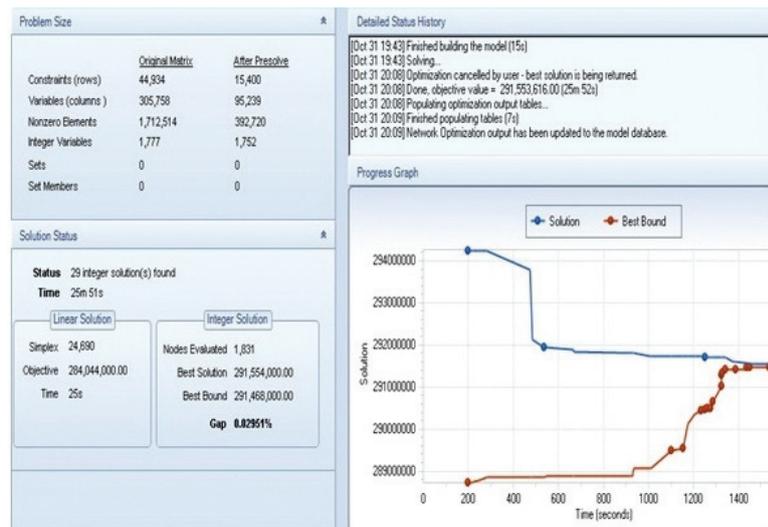
### Identified Potential Savings of €30M for Major Consumer Packaged Goods Company

The world's leading CPG company asked us to analyze a complex supply chain spread across 20 countries, with 10 factories serving 28 warehouses. There were 184 product technologies and more than 1,000 active stock keeping units (SKUs). The client's objective was to optimize the manufacturing and distribution footprint for a specific product category.

## Solution

We identified several possible low-cost network scenarios and analyzed the cost for each one, always checking that service levels would not be compromised. Based on our analysis, we showed how each scenario would realign the manufacturing and distribution footprint.

## Illustrative Outputs



## Outcome

Our analysis identified potential savings of €30m from optimizing the manufacturing and distribution footprint across the region. In total, we developed about 25 scenarios, with savings from €5m to €50m.

## Our Analytical Tools and Capabilities



Our statistical analysis makes use of a range of quantitative and exploratory techniques.



Predictive modeling techniques help us deliver dynamic models to forecast product demand.

We also use optimization models and client-identified tools to find an appropriate strategy for complex operational problems with multiple constraints.

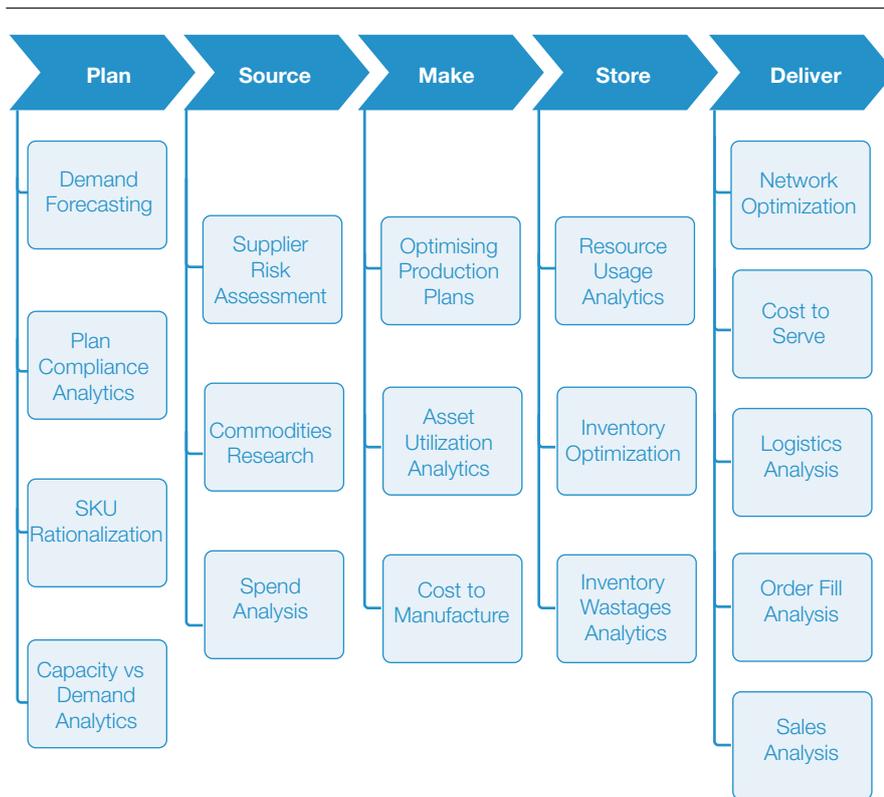
A user-friendly, proprietary supply chain simulation tool helps train operations personnel in supply chain concepts and their business implications.

## The Capgemini Experience

The team has a strong analytical background with specialization in disciplines of management, engineering and statistics. Their experience includes CPG and retail, consulting, research and supply chain.

Our clients get lasting value because we engage directly and meaningfully with stakeholders at each level of the enterprise – from boardroom to shop floor and warehouse.

## Our Capabilities – Supply Chain Analytics



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### About Capgemini

With more than 125,000 people in 44 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2012 global revenues of EUR 10.3 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want.

A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

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