

CHEMICAL INDUSTRY FACES A PERIOD OF READJUSTMENT.

## Is Your Supply Chain Designed to Transform?



### As chemical companies realign their businesses to increase profitability and better serve the market, digital transformations are becoming a business-strategy

As a chemical company, you are on the front-lines of rapidly shifting economic trends. Will your supply chain enable you to continuously adapt to the key trends that are shaping the industry:



#### Strengthen Positions Through M&A

Chemical M&A will continue as firms restructure to ensure earnings growth.<sup>1</sup>



#### Trade Barriers

Chemical companies could face more trade barriers and tariffs if the US and China fail to reach some kind of agreement that addresses their trade grievances.<sup>2</sup>



#### The Investment in Digitalization

Chemical companies plan to invest 5% of annual revenue on digitization over the next five years. By using digitization to integrate business and manufacturing systems, optimize production footprints, and redesign processes, chemical companies can capture gains of up to 25% in capacity utilization.<sup>3</sup>

When the importance of the decision requires the smartest analysis, innovative chemical companies rely on LLamasoft to show them trade-offs and options for how their supply chain should be designed to create desired business outcomes. The LLamasoft Digital Design and Decision Center puts powerful answers in the hands of supply chain decision makers - across strategic, mid-range and operational time horizons - making data-driven decisions a reality within and across supply chain functions. With the ability to visualize, simulate and optimize your end-to-end supply chain processes, you'll be able to answer the most complex supply chain transformation questions.

## Supply Chain Design Makes a Difference

Chemical companies that proactively redesign their supply chains with LLamasoft can respond rapidly to changing market conditions and design their supply chains to balance trade-offs in profitability and service goals. Our chemical customers identify an average of 14% total variable cost savings while driving operational transformations:

- Network Design
- Production Capacity
- Inventory Optimization
- Transportation Optimization
- Capacity Planning & Risk Analysis

## How are Global Chemical Companies Leveraging Smarter Supply Chain Decisions?

LLamasoft chemical customers include some of the largest and most innovative companies in the world. Here are the stories of chemical customers' achievements with LLamasoft solutions:

- A global chemical manufacturer wanted to find the best way to decrease their North American footprint to eliminate excess capacity and identify a forward-looking plan for their three manufacturing facilities. The manufacturer worked with LLamasoft to build an entirely cloud-based supply chain model. Today, the 18-month time horizon model is run quarterly to support the company's monthly S&OP process for North America and Europe, and is the foundation of all business supply planning with production, logistics, and sales personnel. With LLamasoft, subjectivity was removed, and scenario comparisons provided analysts with a single version of the truth on which to base their decisions. The team is now able to easily see and communicate the effect even small changes have on the big picture.
- A leading global chemical company needed a way to rapidly answer what-if questions about how changes in demand variability would affect service levels. Using LLamasoft they leveraged network optimization models to build an inventory optimization model. With a unified network and inventory optimization models, they were able to reduce the overhead and complexity of model building and reporting, and get the same quality of results as from the more complex solution. Their team uses this unified model to understand how a change in network structure would impact cycle and safety stock levels, and evaluate the optimal strategy for an efficient supply chain.

In the end, the team produced six potential models, while each of the six scenarios solved the issue of more efficient inventory, one scenario proved to be the best choice and resulted in the retailer building a regional distribution center in China.

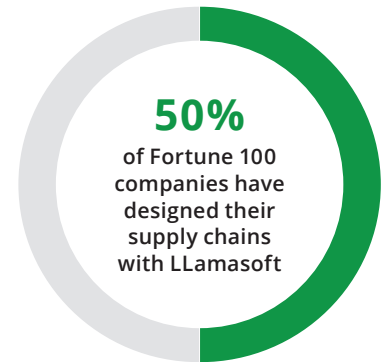
LLamasoft, Inc.  
201 South Division Street, Suite 200 Ann Arbor, Michigan 48104, USA Phone: +1 866.598.9831  
LLamasoft.com | Info@LLamasoft.com

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**Gartner**

### Supply Chain Top 25

24 of the Gartner's Supply Chain Top 25 companies leverage LLamasoft technology for the supply chain decisions.



**3,000+**

LLamasoft has supported over 3,000 supply chain analysis and design solutions.

1. World Chemical Outlook 2019
2. ICIS Chemical Outlook '19
3. PwC Chemical Industry Trends Report

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