



**CAMPAIGN IN A BOX**

# **Sales Enablement Guide**

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**This guide provides insights and information to help you frame sales conversations with supply chain prospects. It includes:**

- Clarification of target market and their current challenges.
- The opportunities for optimization in supply chain and the business benefits it delivers.
- Stats to provide proof and back up your claims.
- Key messages you can use to inform your calls.



# Overview

For manufacturing and production planners seeking not just good but optimal production plans, Gurobi offers a powerful solution. Our mathematical optimization technology combines a robust algorithm-based solver with data-driven analytics, to empower businesses to master their production planning, swiftly adapt to market changes, and proactively tackle future challenges.

Gurobi's technology ensures companies maximize their production assets, achieving the lowest cost, highest revenue, or best profitability. Through mathematical models tailored to your customers' unique business needs, Gurobi guarantees optimal outcomes for every plan. These models consider all critical factors, including labor, production minimums, and customer satisfaction, transforming them into valuable assets for strategic planning.

As the fastest optimization engine on the market, Gurobi delivers optimal decisions in seconds, outperforming other solvers. With Gurobi, businesses can tackle large-scale, intricate production planning challenges with absolute certainty of reaching the best possible outcomes. Production planners have reported up to a 20% enhancement in planning accuracy and a 50% reduction in the time spent on planning activities.







Supported by a team of PhD-level experts, and a network of trusted Alliance Partners, Gurobi doesn't just offer leading-edge technology; it provides comprehensive support and deep expertise too.

By solving complex business challenges with the support of Gurobi Alliance partners, manufacturers can unlock the true value of optimization much faster. This partnership accelerates the return on investment by implementing solutions that not only address immediate issues but also set the stage for long-term efficiency, sustainability, and competitiveness.

**Help your customers optimize efficiency, boost profitability, and transform production planning into a competitive edge.**



# Primary Target Audience

## TARGET ORGS

- Manufacturers
- Large enterprises where manufacturing plays a significant part in their operations (e.g. Healthcare)

## TARGET PERSONAS

- Business Users – Production Managers, Production Directors, Operations Managers

## AUDIENCE CONTEXT

The target audience will be well-versed in the challenges of production planning and may well be looking to make investment in technology to ease the pressure and ward off potential threats.

They may not, however be aware of Mathematical Optimization (and therefore Gurobi) and the many ways in which it can optimize production planning and mitigate some of the challenges involved.

The challenge of production planning is always related to manufacturing however, not all organisations will call themselves manufacturers. For example, healthcare/pharmaceutical companies wouldn't explicitly refer to themselves as manufacturers, even though manufacturing forms a significant part of their operations.

## CURRENT CHALLENGES

### 1. Historic Perceptions of Optimization

**Solutions:** In the landscape of production planning, solvers are often overlooked or misunderstood, historically dismissed for their sluggish performance. Many professionals in the field may have yet to discover the transformative power of modern solvers. Within your prospect organization's teams, there might be just a handful of individuals who grasp the full potential of these advanced optimization solutions.

**2. Real-Time Demand Forecasting:** The old ways of customer demand forecasting were fraught with uncertainties, relying on data that couldn't keep pace with market dynamics. Modern solvers, like Gurobi, can digest almost real-time order information and rapidly recalibrate production schedules, even incorporating last-minute cancellations.

**3. Overseeing Diverse Production Plans:** Many of your prospects will be responsible for coordinating multiple production facilities. Each site operates like a unique puzzle piece, essential to the complete picture of your prospects production capabilities.

**4. The Illusion of Optimization:** There's a common belief among manufacturers that their existing scheduling strategies are optimized. Yet, often they are using methods like standalone machine learning, heuristic approaches, or basic rule-based systems that lack precision and speed—especially when it comes to complex manufacturing processes. Unlike these legacy methods, Gurobi excels by seamlessly integrating with and enhancing these systems.

# Opportunities for Optimization



## STRATEGIC

- Product Portfolio Optimization
- Multi-Plant Production Planning
- Capacity Planning
- Workforce Planning
- Demand Planning
- Scenario Modelling
- Production Line Transfer Planning
- New plant location



## TACTICAL

- Spare Parts Inventory Planning
- Maintenance, Repair, and Overhaul (MRO) Planning



## OPERATIONAL

- Resource-Constrained Project Scheduling
- Real-Time Dispatching
- Shift Assignment
- Machine and Equipment Planning
- Order Fulfillment Planning





# BUSINESS BENEFITS

Companies utilizing mathematical optimization technologies to manage their production planning can boost their operational efficiency, balance the tradeoffs between conflicting business objectives, and realize numerous business benefits including:



**1.** Maximized machine and resource utilization.



**2.** Improved demand forecasting.



**3.** Enhance delivery reliability.



**4.** Flexible planning – create, and recreate, optimal production plans in seconds to accommodate unexpected changes.



**5.** Minimized set-up time and shortened lead times.



**6.** Increased resiliency of production processes.



**7.** Increased visibility of risk to minimize the impact of uncertainties.



**8.** Improved throughput times.



**9.** Reduced work pressure for staff – free up time to spend on value-adding tasks.



**10.** Effectively balance efficiency, sustainability, and cost.



**11.** Increased efficiency of production capacity across multiple factories.



**12.** Reduced production costs (labor, material, resource, outsourcing etc.)



**13.** Increased Profitability and ROI.



**14.** Customized apps for optimal scenario planning.

# Key Campaign Messages



Mathematical Optimization has evolved to be the cornerstone for advanced production planning, enabling businesses to finely tune their operations in alignment with fluctuating market demands. This technology equips production planners with the ability to optimize processes, ensuring operational efficiency and maximizing profitability with precision and agility.

Mathematical Optimization helps you find the absolute best sequence for production jobs on your machines to minimize downtime, maximize throughput, and meet deadlines. MO helps you allocate personnel and equipment to tasks efficiently in the best way considering factors like skills, capacity constraints, and minimizing idle time. This strategic efficiency transforms production planning into a competitive edge, ensuring operational goals are met with optimal effectiveness.

Mathematical Optimization (MO) is the key for businesses facing intricate production challenges. It precisely identifies the most efficient production schedules, resource allocations, and process improvements. This not only solves complex issues but also turns them into opportunities for increased efficiency, cost savings, and stronger market positioning, offering a clear path to outperform competitors.

When confronted with unpredictable market shifts, businesses can rely on Mathematical Optimization to automate decision-making and provide the optimal outcome, every time. This technology empowers companies to respond to changes with confidence, ensuring timely adjustments to production plans and maintaining continuous operational flow.

With Mathematical Optimization, businesses can automatically optimize production schedules and allocate resources in real-time and in the best way, consistently. This capability minimizes disruption recovery times, enhances operational efficiency, and secures ongoing business continuity, even in the face of unforeseen challenges.





Mathematical Optimization automates production planning decisions, efficiently translating complex data into precise, actionable tasks. It facilitates strategic planning and real-time adjustments to production activities, aligning them with current market conditions and operational capabilities for enhanced efficiency, profitability and competitiveness.

By harnessing the full potential of Mathematical Optimization, companies can not only navigate current production complexities but also pave the way for a more efficient, profitable, and resilient production landscape. This strategic foresight positions businesses to thrive in an ever-evolving market, setting a new standard for production excellence.

Adapt and scale your production strategies effortlessly with Mathematical Optimization. Tailor your production processes to meet the evolving demands and complexities of the market, ensuring that your business remains agile, responsive, and ahead of the competition.

Embrace sustainability as a core component of your production strategy with Mathematical Optimization. This technology enables businesses to balance efficiency with environmental responsibility, optimizing resource use, reducing waste, and contributing to a greener, more sustainable future.