

# ENTERPRISE DIGITAL TWINS FOR PRODUCTION PLANNING & CONTROL

AUTOMOTIVE / AEROSPACE / MANUFACTURING

Manufacturers face increasing challenges to maximize both customer satisfaction and profitability. Modern industrial supply chains are more complex and one disruption can impact an entire organization. They need a technology that allows them to master cascading effects across the entire value chain and ensure their action plan remains robust. Industry leaders rely on Cosmo Tech's Enterprise Digital Twins to respond to these challenges.

### BENEFITS



Increase Production Throughput

Improve Service Levels



Reduce Time to Plan

## NOT YOUR STANDARD SIMULATION SOFTWARE

Cosmo Tech Supply Chain is designed for manufacturers looking to improve the way they plan their complex supply chain network in the face of volatility and change.

By creating a dynamic Enterprise Digital Twin of an end-to-end supply chain, manufacturers can simulate and optimize production plans on demand. Powerful optimization algorithms based on simulation identify the optimal execution plan, outline actions for every step along the way, and over any time scale. This solution means that manufacturers are able to optimize current operations or adjust plans when unexpected events arise, while achieving desired KPIs.



# CASE STUDY

# Achieving Production Planning Excellence

Our client is an international car manufacturer that has to adapt to a very competitive market and uncertain environment. He needed to boost the production of specific engines to meet an increasing demand while maintaining the same level of investment. Our client needed a software solution that could anticipate the effect of bottlenecks on the whole organization, respect multiple constraints and consider end-to-end costs.

### **FEATURES**



#### **Unlimited what-if scenarios:**

Design & simulate scenarios to predict the impact of decisions on the whole organization



#### **Bottleneck identification:**

Automatically identify bottlenecks and understand what actions to take, when and where



#### How-to optimization:

Prescribe the best operational strategy for your supply chain over any time scale



#### Safety stock positioning:

Find the right safety stock level at each stage to ensure robust execution against variabilities



#### Sensitivity analysis:

Test robustness to unexpected events to mitigate risks and improve production planning



**Cost calculation:** Consider the costs of your scenarios and develop a realistic production plan



Thanks to Cosmo Tech, we have a reliable model of our supply chain. As soon as a variable changes, we can easily recalculate the optimum plan.

Supply Chain Expert at a leading automobile manufacturer



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