Supply Chain Planning
100% Visibility

Visibility is critical not just for what is happening now but what could be happening in the future. Use Prediction to see potential risks and opportunities ahead of you.

The challenges you face

Manufacturers whether fabless or with sophisticated discrete or process operations — those with multiple plants, inventory locations, and alternate suppliers — know how difficult it can be to synchronize volatile supply and demand factors throughout the supply chain.

Sudden changes in customer demand and supply disruptions can leave once solid MRP plans in tatters. You need to minimize overtime, optimize plant utilization, avoid parts shortages, and streamline production lines — all while responding to changing demand patterns on a daily or weekly basis.

How will you rise to these strategic challenges and achieve an optimally synchronized multi-tier supply chain to successfully fill every individual order?

Adexa can show you how to make the most of your current resources, fill the most orders, and achieve the greatest level of profitability and customer satisfaction.

The Adexa solution for Supply Chain Planning

The Adexa solution for Supply Chain Planning is a constraint-based and AI-powered solution that uses a comprehensive, inter-enterprise-wide model, i.e. a digital twin, to synchronize supply with demand across the entire resources of your supply chain.

Adexa gives you new insight and control:

- Minimize cost of goods sold
- Reduce days in inventory
- Maximize fixed asset utilization
- Accurately forecast demand and supply
- Cut direct material cost
- Quicken order to invoice lead time
- Commit accurate delivery dates
- Maximize manufacturing equipment utilization
- Minimize inventory write-offs
- Reduce cycle time
- Eliminate customer turnover

"Create your digital twin accurately to enable your digital supply chain drive your physical."

With Adexa, you can create a calibrated plan that encompasses procurement, shipments, manufacturing, and customer delivery. It generated accurate forecasts and customer orders at the "product family" level or at the end-item level to improve constraint-based production planning, rough-cut capacity planning, and master scheduling using OR and ML algorithms.

Using predictive techniques, Adexa helps you create plans to satisfy final assembly scheduling and multi- plant processing, and predict and prioritize exception conditions.

Collectively, Adexa solutions for supply chain planning enable manufacturers to identify imbalances, capacity bottlenecks, and material shortages, and quickly adapt their schedules when unexpected events arise anywhere in the supply chain.

Having predictive capabilities using ML, it significantly reduces risk and makes the supply chain more resilient.

The Adexa value proposition
With Adexa-powered solutions for Supply Chain Planning, you can establish detailed models of your supply chain networks, i.e. a digital twin, to ensure feasible and reliable execution of plans across the enterprise.

This highly scalable solution gives you maximum responsiveness in volatile planning environments. Best of all, you enjoy unmatched scalability and speed as well as accuracy.
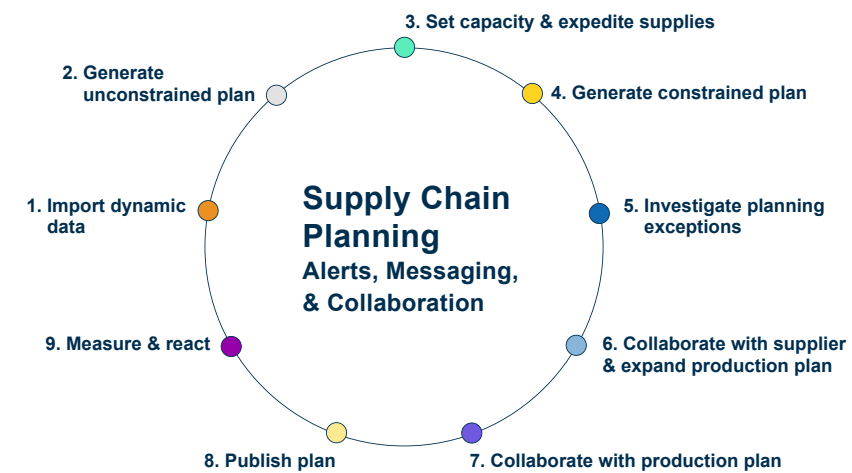
Adexa's unified data model merges planning and execution within the same environment. To this end you can perform both S&OP and S&OE in the same system.

It is a continuum of planning and execution eliminating the need for multiple systems disjointed from each other.

Now, you can reduce inventories by optimizing all supply chain activities and increase your responsiveness through shorter planning cycles. Your capacity and inventory are used to their fullest extent so you can fill all orders when they are truly needed.

- Create accurate and smart plans quickly on a continuous basis (event-driven architecture)
- Reduce excess inventory, excessive overtime, and excessive open work orders using Adexa Genies©
- Adexa Genies© constantly self-correct the digital twin and self-improve policies
- Enable continuous shortening of lead times
- Maximize fixed-asset usage and throughput
- Adexa Genies identify true production capacities
- Easily predict and handle changes in customer demands before they ask
- Allocate equitable inventory across customers to optimize delivery performance
- Choose the right alternate sources of supply and equipment
- Perform dynamic sourcing to minimize cost and maximize availability of parts
- Predict the right level of inventory at every echelon of the supply chain
- Predict dynamically optimal levels of safety stocks
- Perform S&OP and S&OE in one unified system—Just add data

3. Set capacity & expedite supplies
2. Generate unconstrained plan
4. Generate constrained plan
1. Import dynamic data
Supply Chain Planning Alerts, Messaging, & Collaboration
5. Investigate planning exceptions
9. Measure & react
6. Collaborate with supplier & expand production plan
8. Publish plan
7. Collaborate with production plan

Adexa delivers smart solutions that synchronize corporate planning with operations planning and execution on a local and enterprise level, to ensure all assets are utilized to achieve strategic objective. Moreover, the system is capable of constantly self-correcting and self-improving policies using the digital twin of the supply chain and factories.

This enables manufacturers to reduce the cost of goods sold, shorten lead-times for orders and reduce inventory costs with improved supply chain collaboration and management.

"A digital twin must grow with your physical supply chain. Adexa's self-correcting and self-improving algorithms enable precise visibility in both the *looks* and *behavior* of your digital twin."