Better Planning for a Risk-Resilient and Sustainable Supply Chain

PUBLIC

THE BEST RUN SAP

Disruption did more than empty the shelves.

How do you reverse 20 years of globalization in 20 months?

PUBLIC

Reactive responses won’t fix foundational problems.

Narrowly focused improvements amplify silos and disconnections.

Historically focused data constricts decision making.

Internally focused strategies overlook critical collaboration.

PUBLIC

A risk-resilient supply chain demands a different approach:

1. **Connect every process**
within your supply chain and across your business.

2. **Contextualize every decision**
linking real-time operational and business data together throughout the work process.

3. **Collaborate with your ecosystem**
creating digital connections with all your partners.

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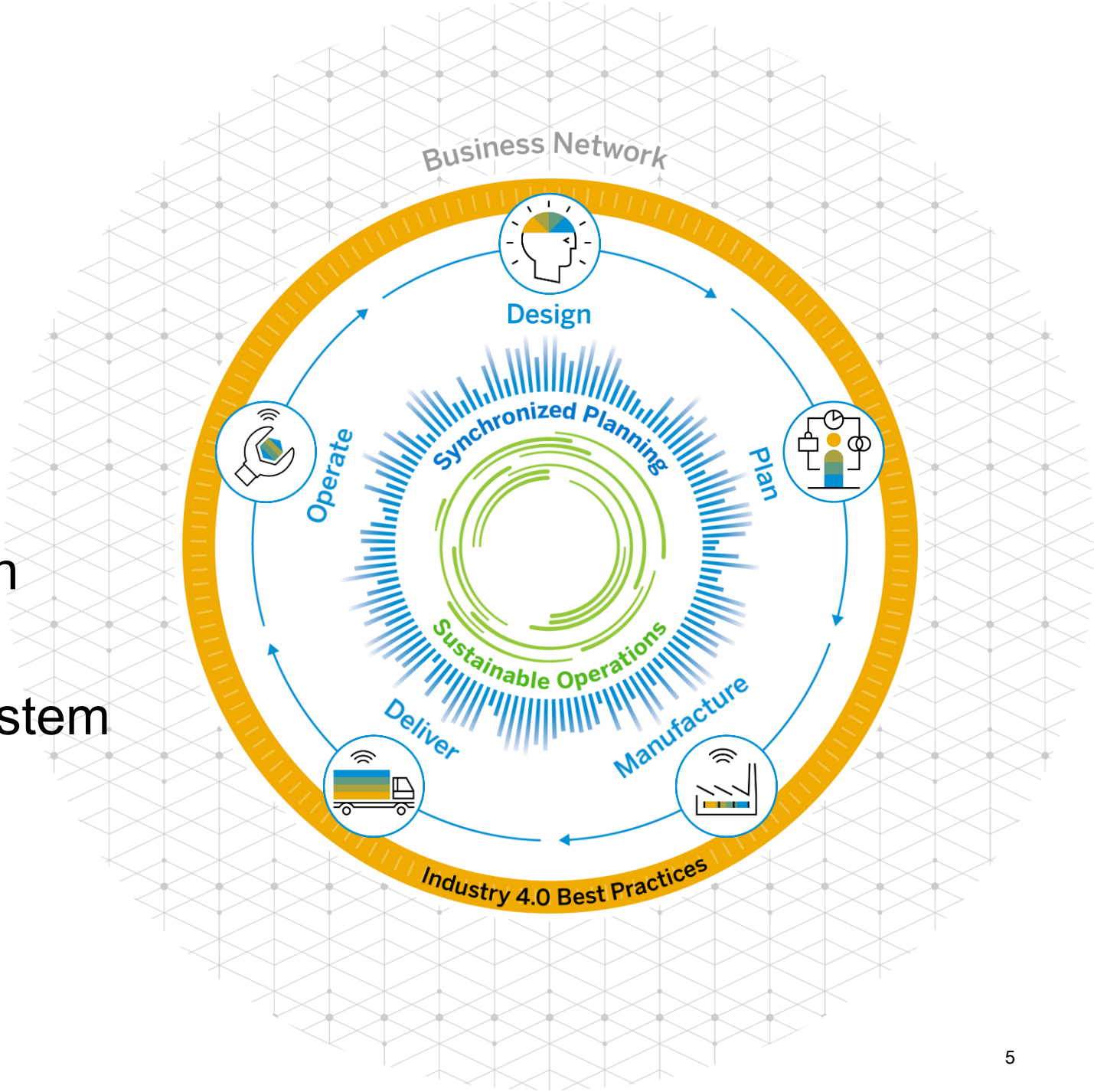
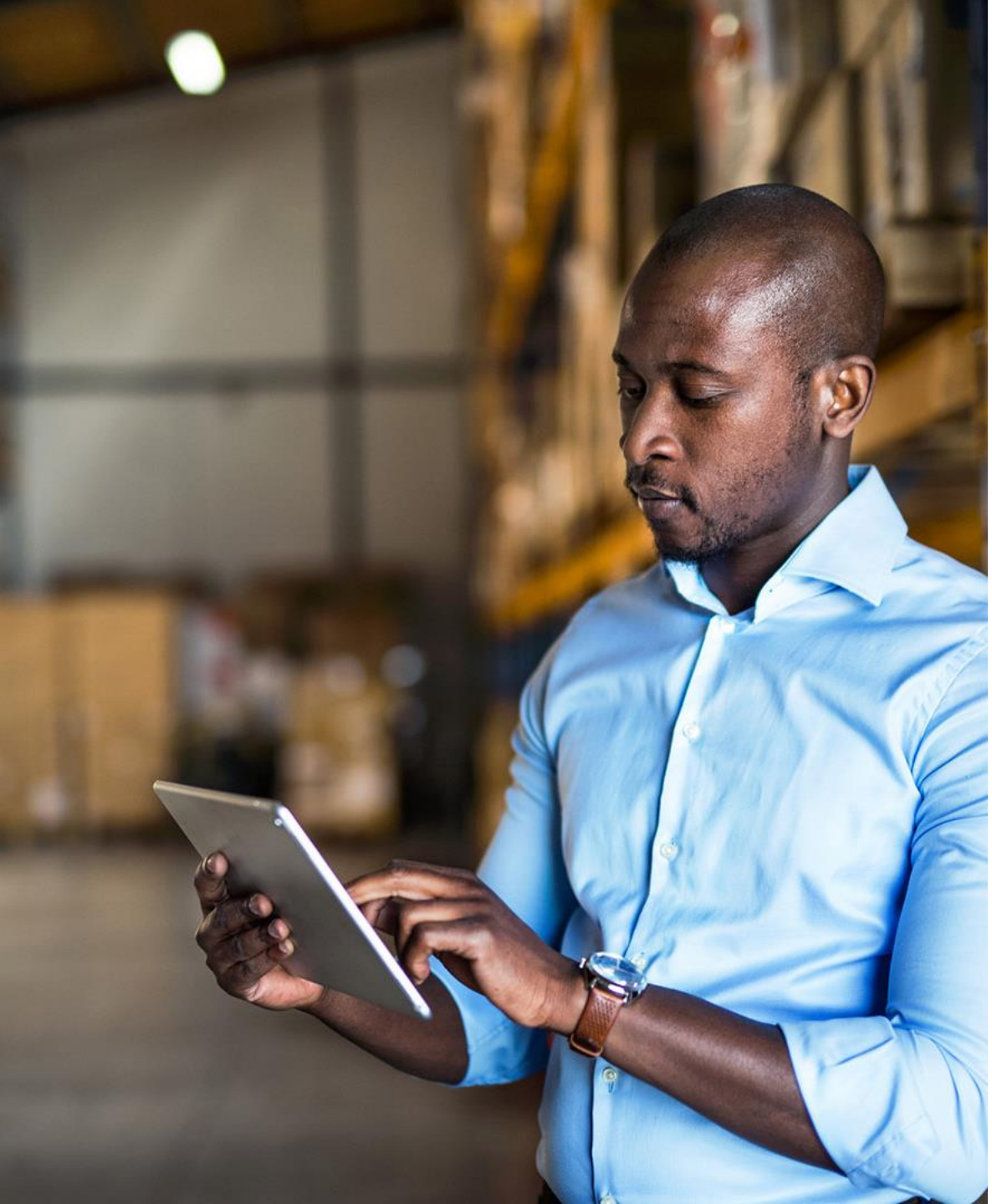
This is the unique value only SAP can offer:

1. Connect every process
2. Contextualize every decision
3. Collaborate with your ecosystem



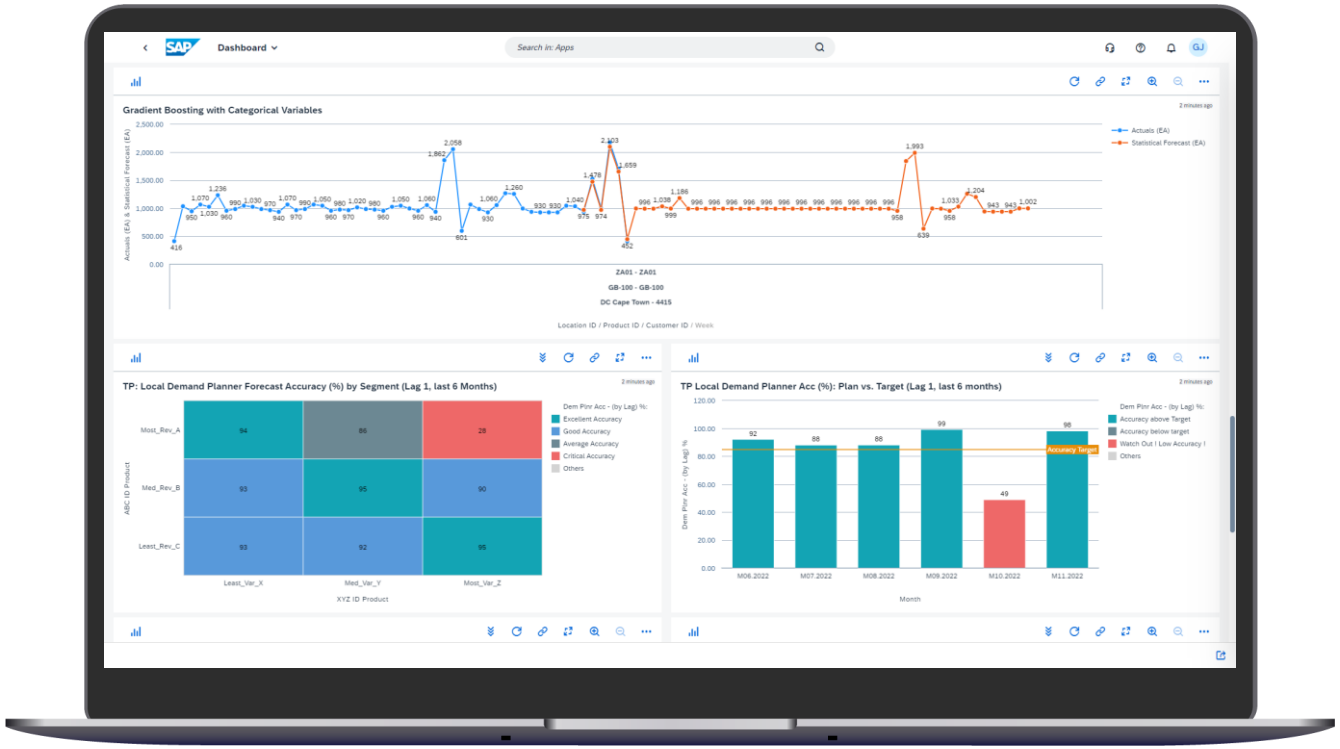


Plan
Connect Every Process

Imagine if you could:

- **Connect demand, supply, and inventory planning** to allocate resources, reduce downtime and disruptions, and increase customer satisfaction
- **Connect financial and operational data** to develop profitable and aligned plans that help hit your topline, protect your bottom line, and take better care of customers.
- **Connect strategic and operational planning** with real-time visibility and execution

Plan
Contextualize Every Decision



Imagine if you could:

- **See the future now** using advanced analytics and machine learning to predict demand, plan your supply, and ensure production efficiency.
- **Create continuity** using embedded analytics to anticipate disruptions, analyze impacts and alternatives, and take action.
- **Evaluate sustainability from every angle** by ensuring reporting and tracking mechanisms include sustainability targets.

Plan
Collaborate with Your Ecosystem

Imagine if you could:

- **Plan beyond your four walls** by proactively sharing your goals and suppliers' capacity and performance constraints.
- **Improve sustainability** by working with suppliers to balance inbound and outbound deliveries and reduce waste from obsolete and excess inventory.
- **Leverage information about risk** and uncertainty with your ecosystem to better evaluate potential disruptions and their impact.

SAP Supply Chain Planning Platform

Connect strategic and operational planning with real-time visibility and execution

Digital Business Planning

PLAN

SAP Integrated Business Planning (IBP) for Supply Chain

- Digital Twin of the entire supply chain
- Predictive and Prescriptive Decision Support
- Real-time scenarios and Intelligent Visibility
- Impact Analysis & Optimization

EXECUTE

SAP S/4HANA

INNOVATE

SAP Artificial Intelligence

Leverage AI technology to improve master data quality, manage supply chain risk and improve sustainability

COLLABORATE

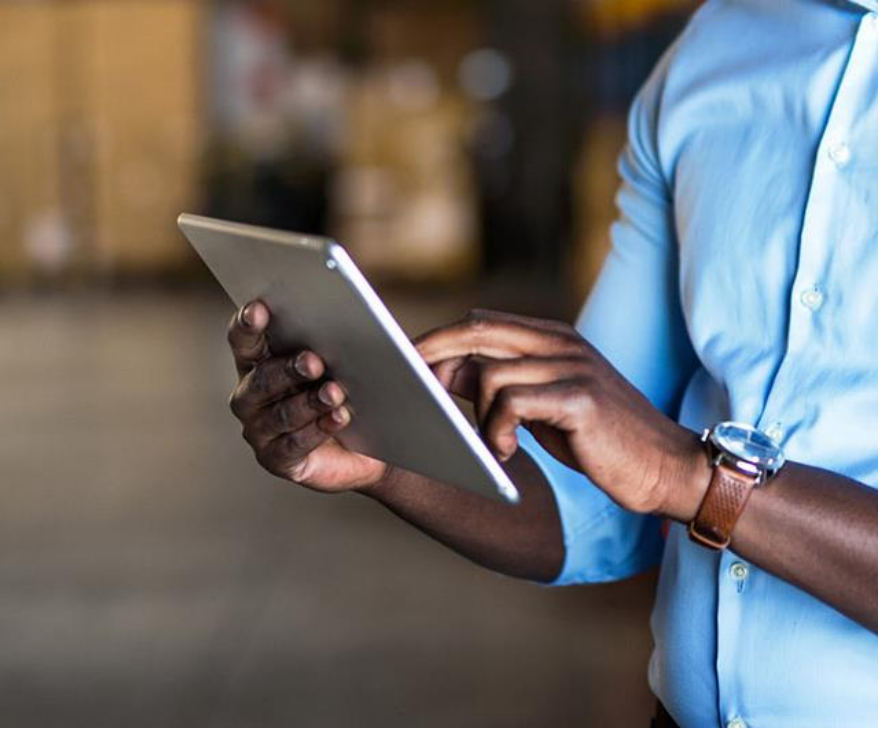
SAP Business Network

High scalability with access to trading partners (including suppliers, logistics providers, and customers) for collaborative planning and execution

SAP Analytics Cloud (SAC)

Financial planning, steering and financial impact analysis on enterprise level

This is the current state of planning and may be changed by SAP at any time.



Plan:

SAP Supply Chain Planning Solution Portfolio

Synchronize supply chain planning decisions across lines of business to respond effectively to changes in supply, demand, and market conditions.

Plan

Meet future demand profitably to stay ahead of change and improve responsiveness.

Collaborate

Gain visibility across all processes in your supply chain by collaborating with your trading partners.

Execute

Leverage proximity to core for transactional planning, scheduling, and order promising.

Innovate

Leverage AI technology to improve master data quality, manage supply chain risk and improve sustainability.

PLAN

Meet future demand profitably to stay ahead of change and improve responsiveness.

Plan – Demand Planning and Forecasting

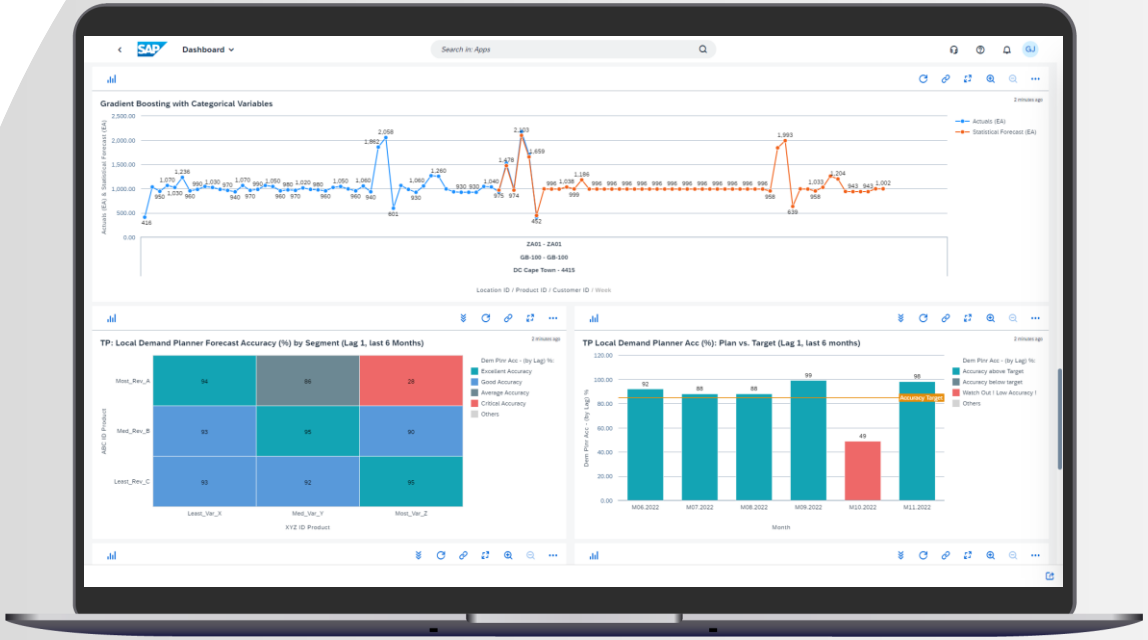
Sense and Predict Demand

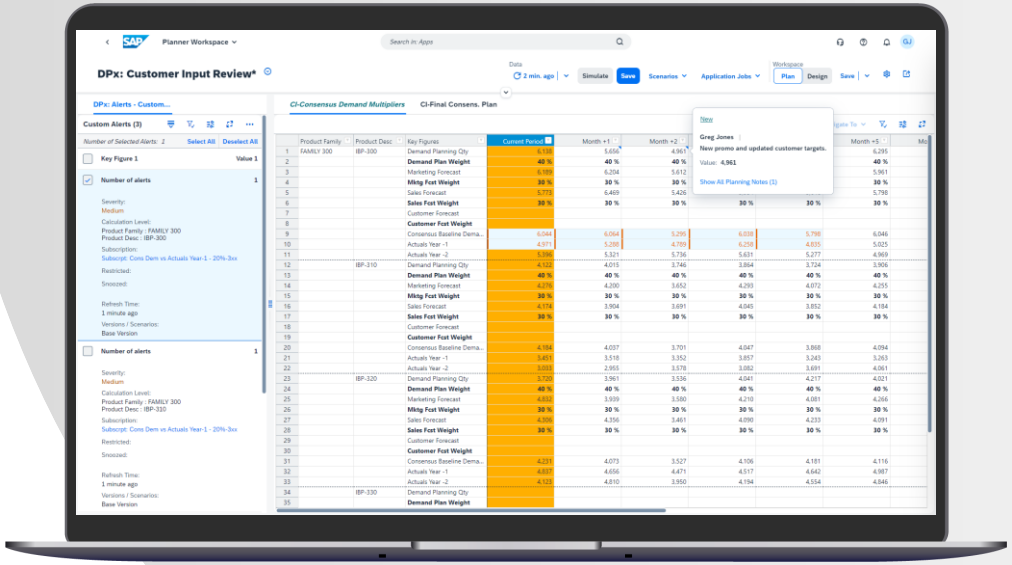
Improve forecast accuracy through machine-learning driven algorithms and collaborative adjustments to the forecast

Improve planner productivity through segmentation and automation of the forecasting process

React faster to short term demand changes with machine-learning based algorithms

Increase visibility with external data as part of the demand planning process





Plan – Inventory Optimization

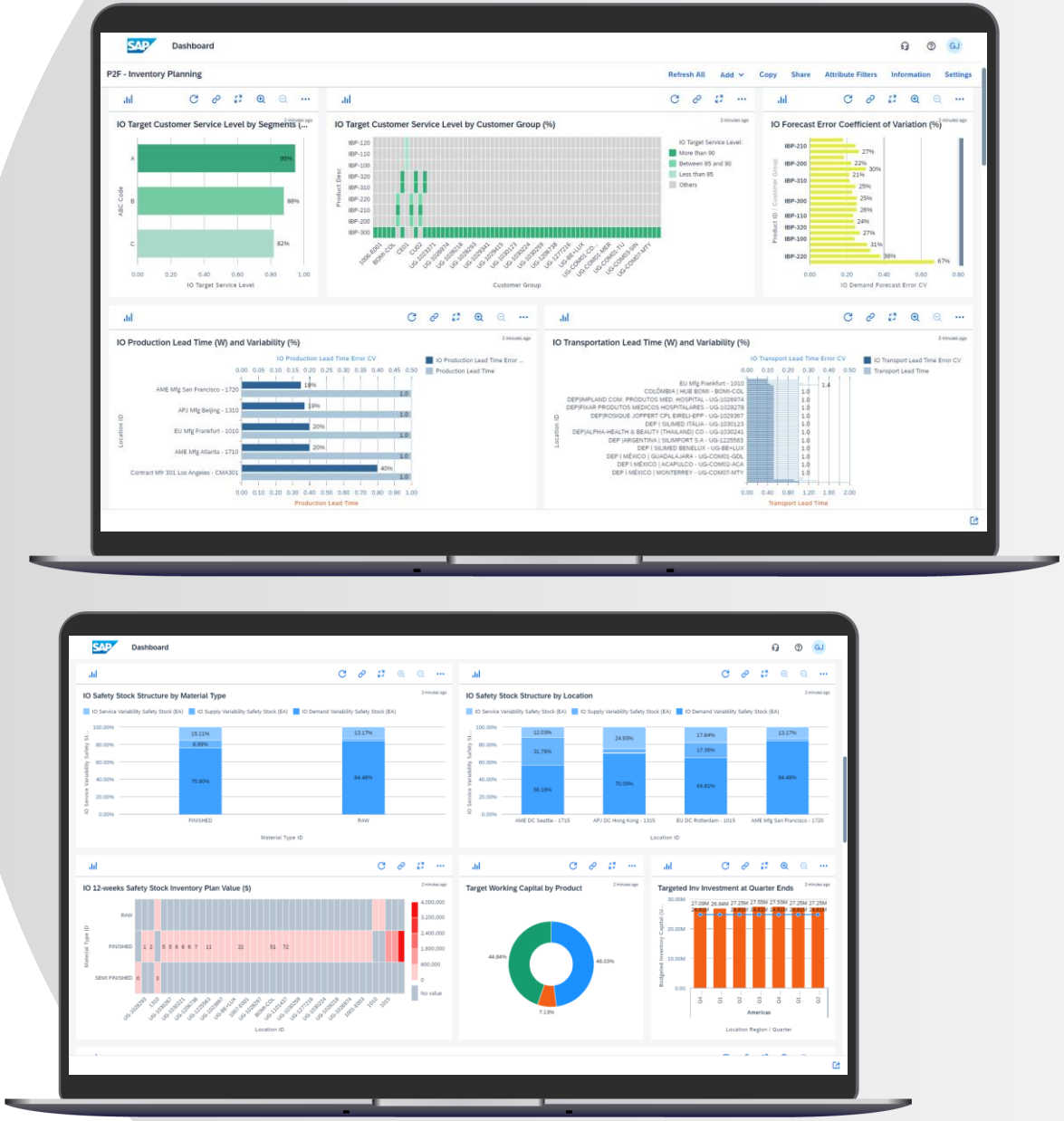
Optimize Inventory and Service Levels

Balance inventory investment and customer service level according to business priorities and through a segmented approach.

Reduce inventory levels by leveraging multi-stage optimization and considering various influencing factors like lead times and lot sizes.

Increase Customer Service Levels while at the same time buffering against forecast error, demand risk & supply uncertainty.

Evaluate inputs, outputs and **create scenarios** with an easy-to-use interface and analytical dashboards.



Plan – Demand-Driven Replenishment

Automate Replenishment

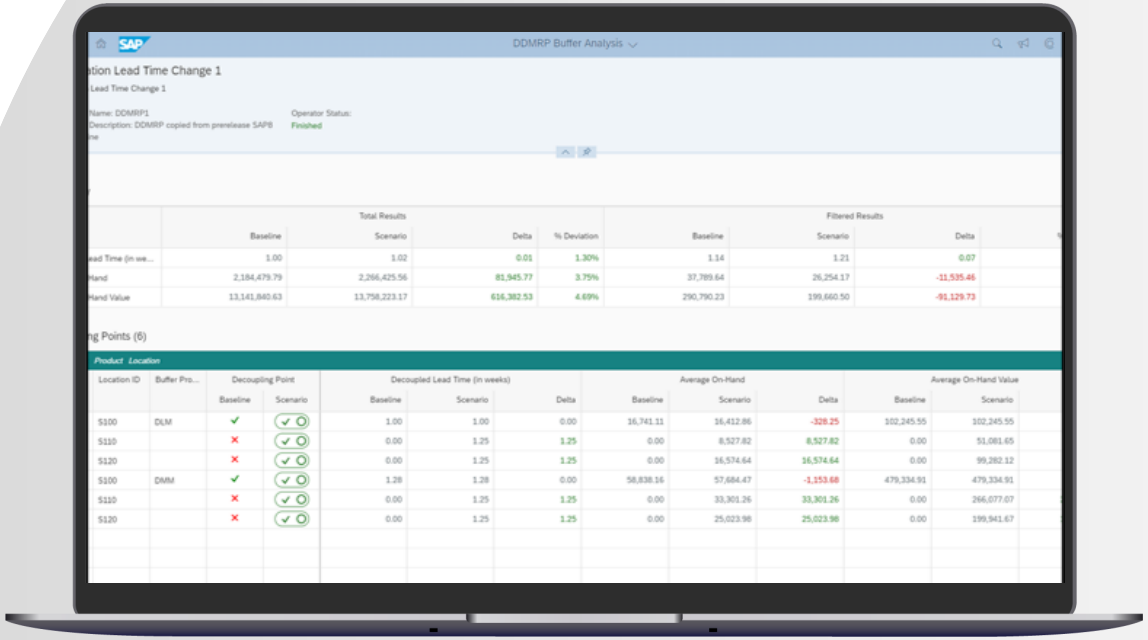
Support all steps of Demand Driven Material Requirements Planning (**DDMRP**).

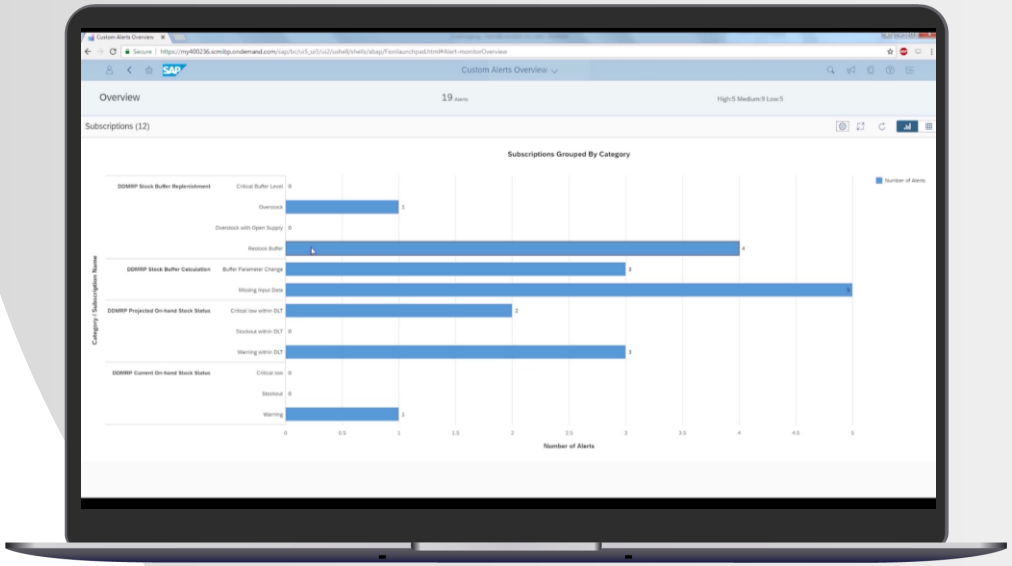
Smooth material flow through the supply chain and reduce supply chain (MRP) nervousness.

Compress customer-facing lead times and improve customer service levels.

Reduce inventory levels across the supply chain with strategic de-coupling point and buffer zone calculations.

Simplify planning with directed replenishment activities, simplified supply prioritization and active buffer zone monitoring.





Plan – Supply and Response

Plan Supplies Responsively

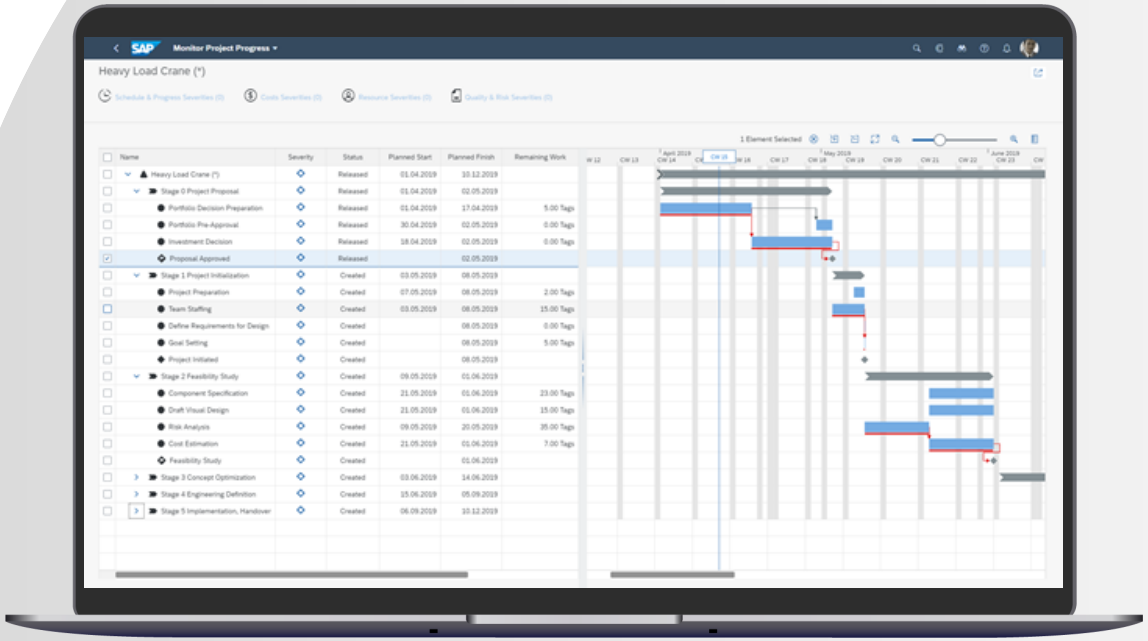
Create a feasible Rough Cut Capacity Plan by using a set of planning algorithms, and share requirements with suppliers.

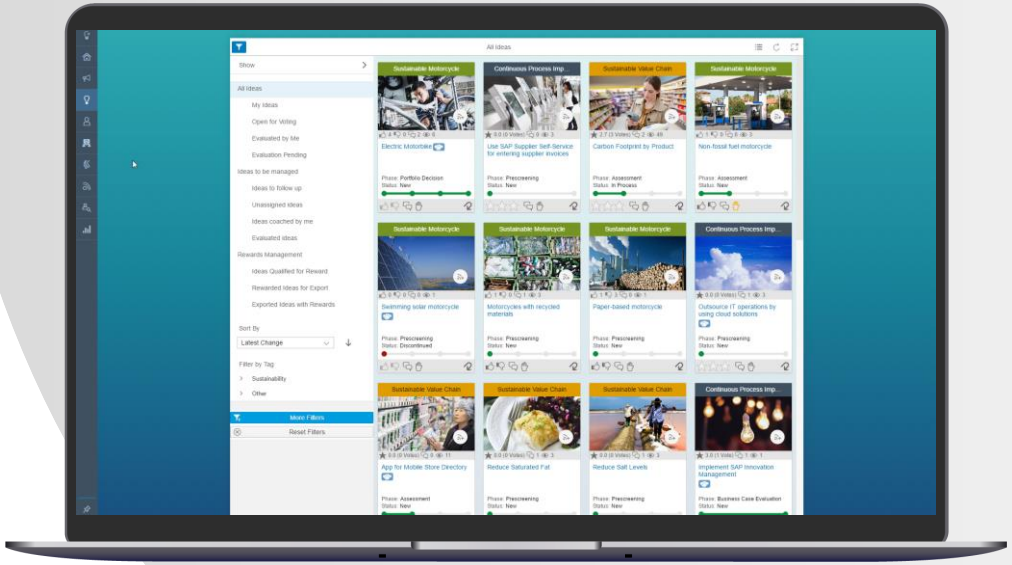
Respond to short term demand changes with fast matching of supply to demand based on desired logic and outcome.

Leverage constrained based optimization and priority rules-driven algorithms.

Generate and provide allocations to ATP for live promising or reconfirm sales orders during supply planning.

Run different scenarios and what-if analysis of actual or hypothetical changes to demand or supply.





Plan – Extended Service Parts Planning

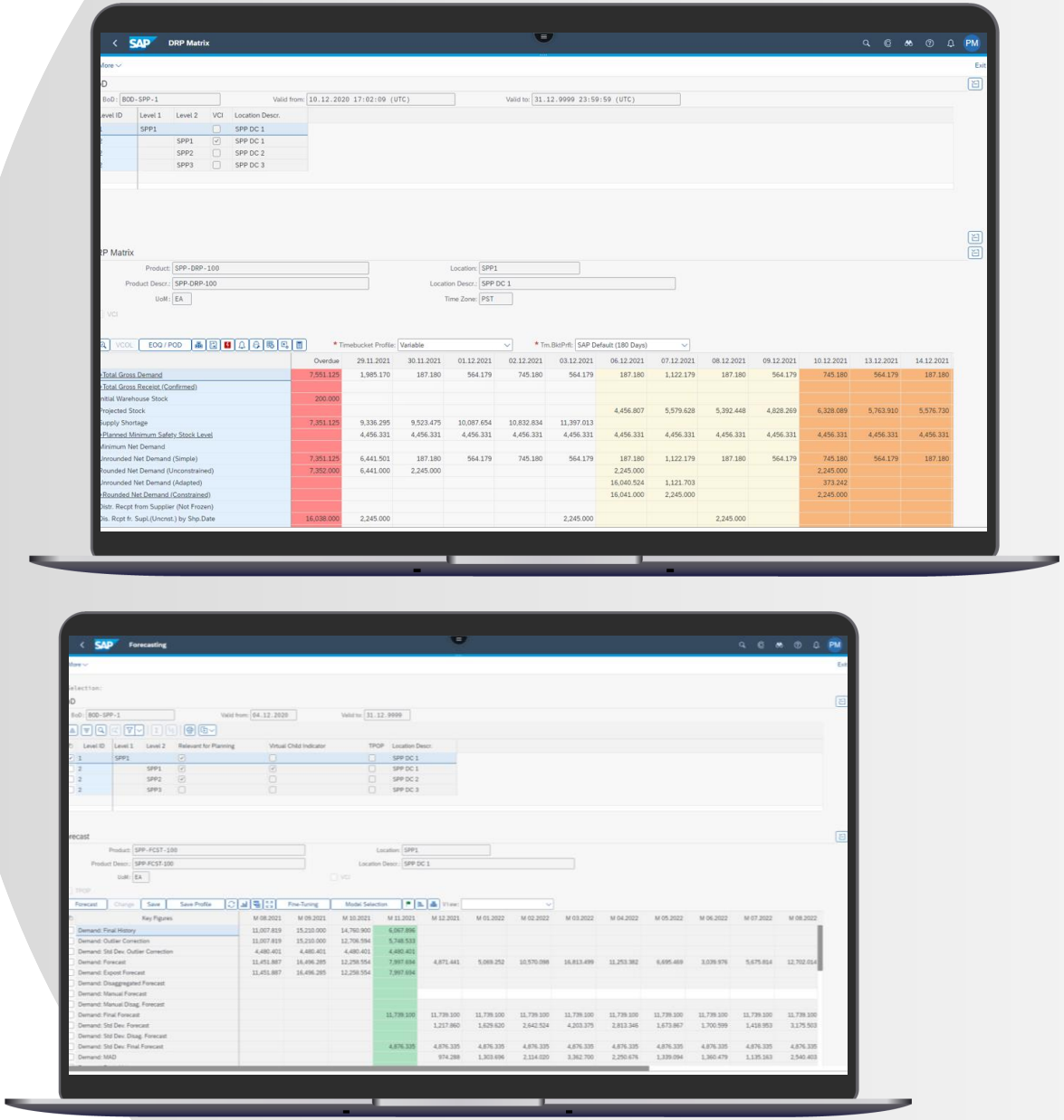
Plan Service Parts End-to-End

Enable real-time and network-based planning and end-to end visibility for aftermarket business units with complex and volume intense processes.

Leverage dedicated process support, from specific forecasting models, over EOQ & safety stock calculations, to distribution requirements planning and deployment (and more) in one single tool.

Reduce inventory investment while keeping or even increasing customer service levels.

Streamline and automate processes and increase planner productivity, e.g. through workflows, alerts, analytics and ML based forecasting.



COLLABORATE

Gain visibility across all processes in your supply chain by collaborating with your trading partners.

Collaborate – Sales and Operations Planning

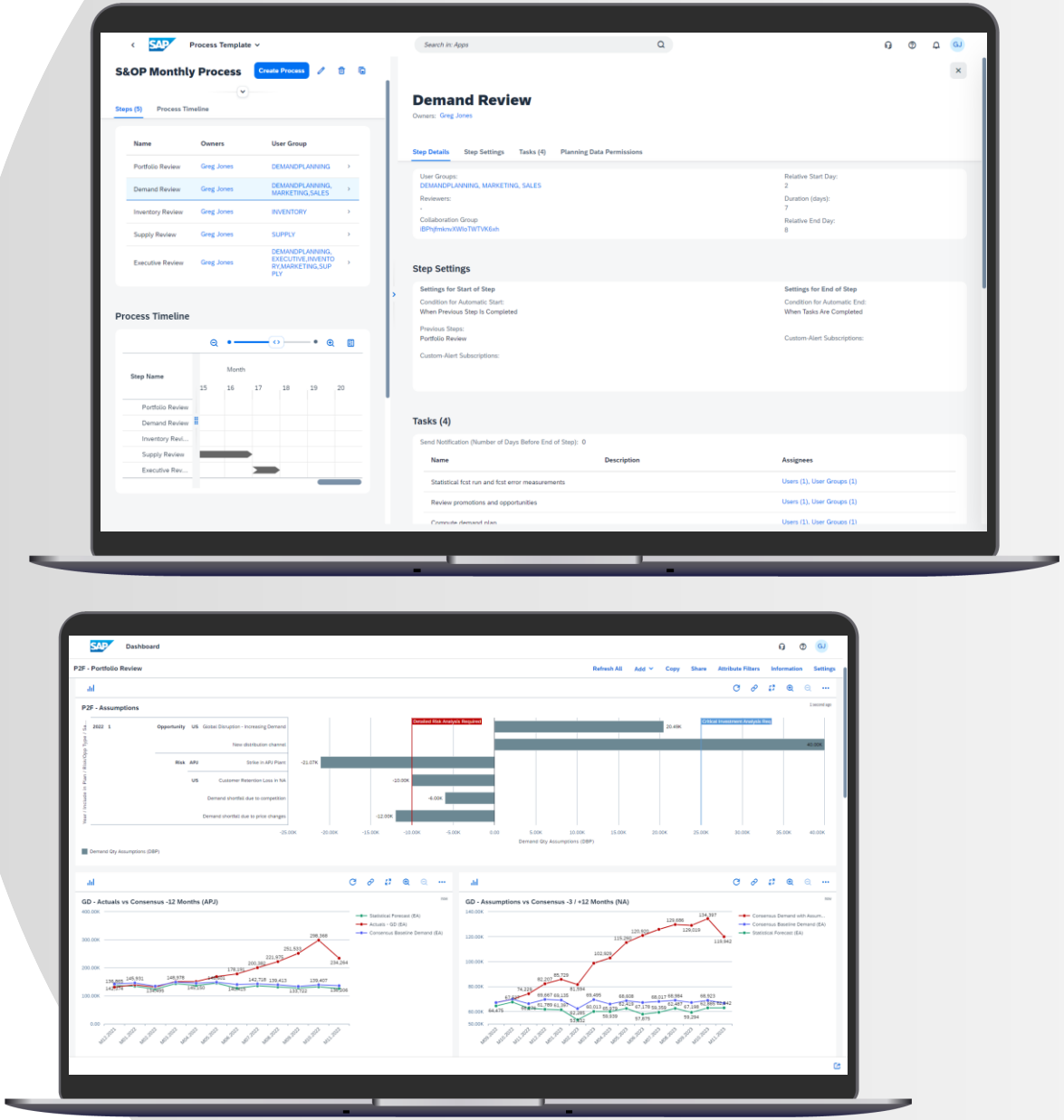
S&OP as a Collaborative Process

Enable cross-functional process collaboration and orchestration to increase speed and agility of planning.

Create the optimal business plan to drive revenue growth and increase market share.

Effectively balance demand and supply and attain financial targets.

Manage risks, assumptions and opportunities



Collaborate – Extended Planning and Analysis

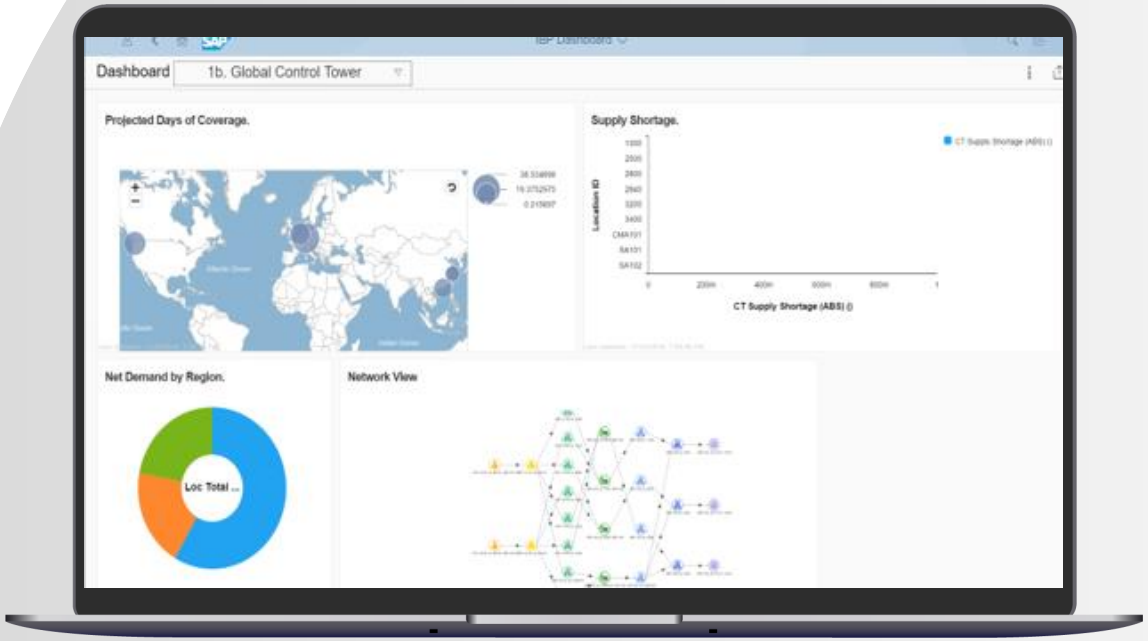
Synchronize Financial and Supply Chain Planning

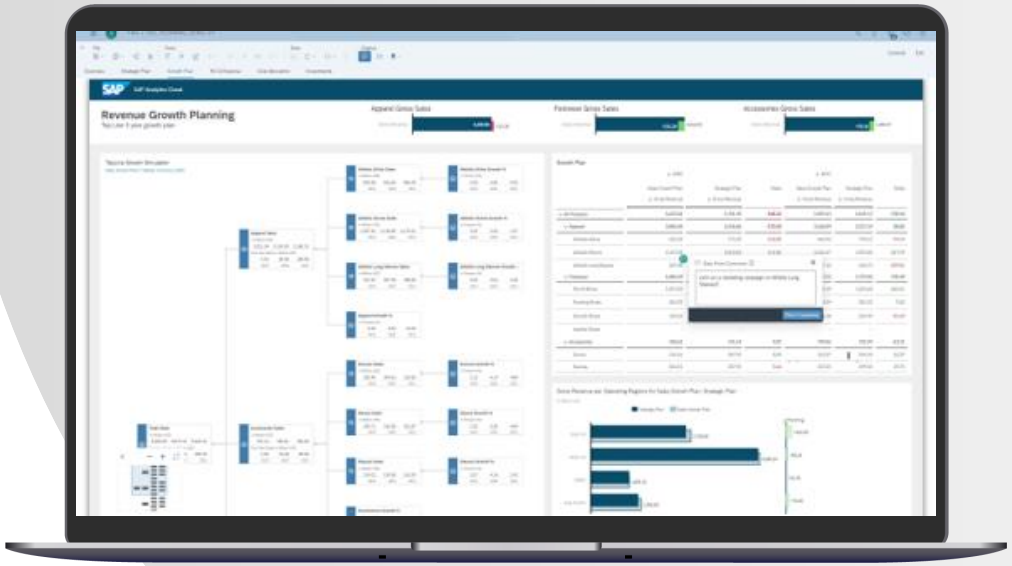
Foster collaboration across departments and provide "one source of truth" for data

Experience a consistent user interface across SAP applications, e.g. as in SAP S/4HANA, SuccessFactors

Define calculations on top of the IBP data model

Leverage best-in-class analysis and visualization capabilities





Collaborate – Business Network Planning

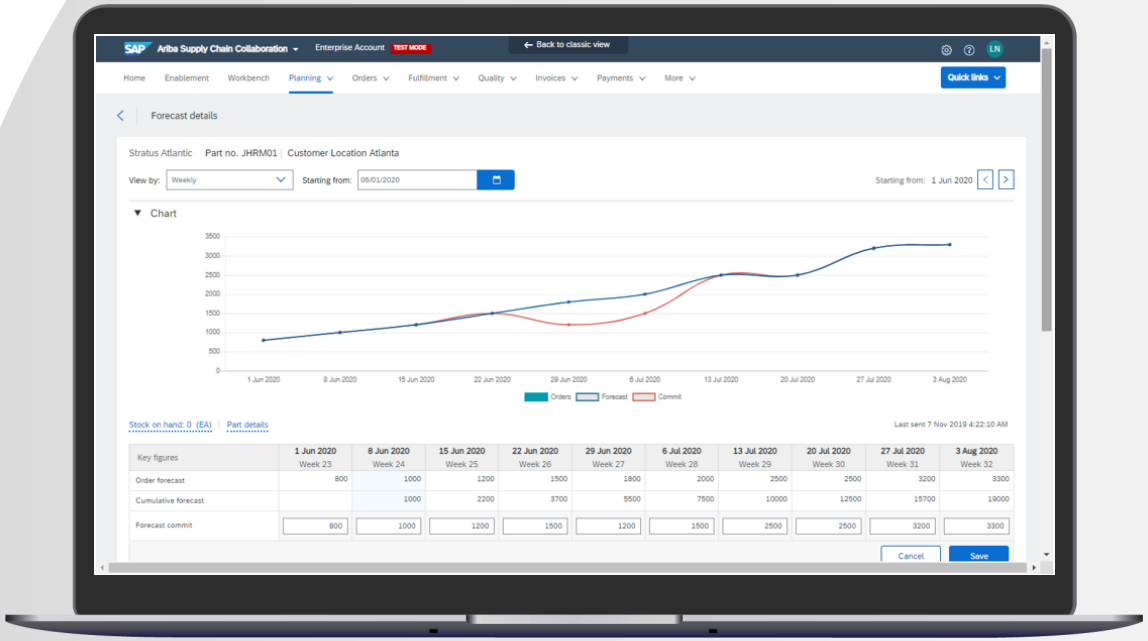
Align with your trading partners

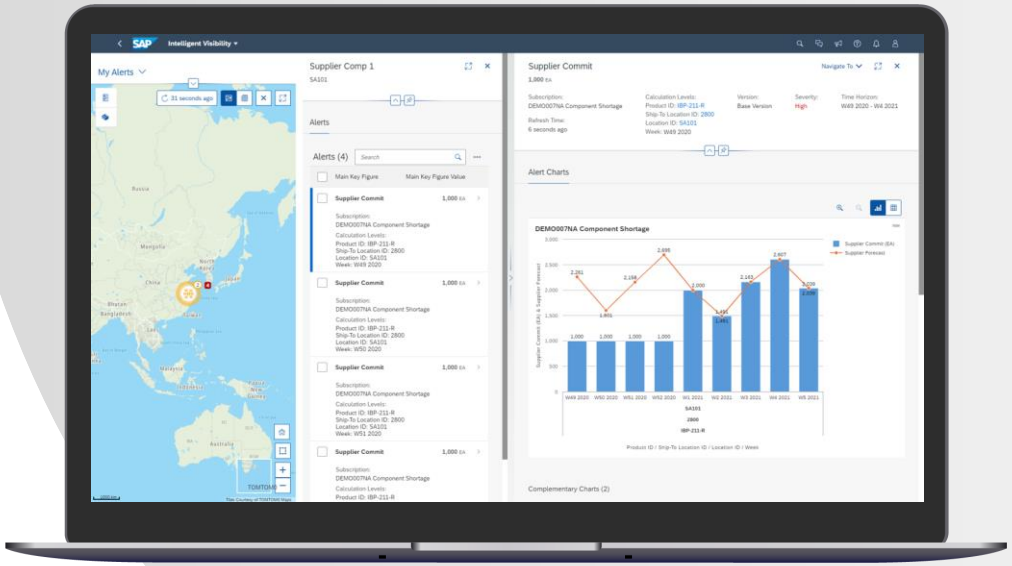
Collaborate with all suppliers in real time across and extend planning process beyond your organization.

Get better visibility to improve fill rates and decrease buffer stock.

Collaborate on forecast data and supplier commit and get visibility on supplier inventory data.

Reduce planning cycle time and **improve predictability of supply** by an extended planning beyond the four walls





Collaborate – Business Network for Logistics

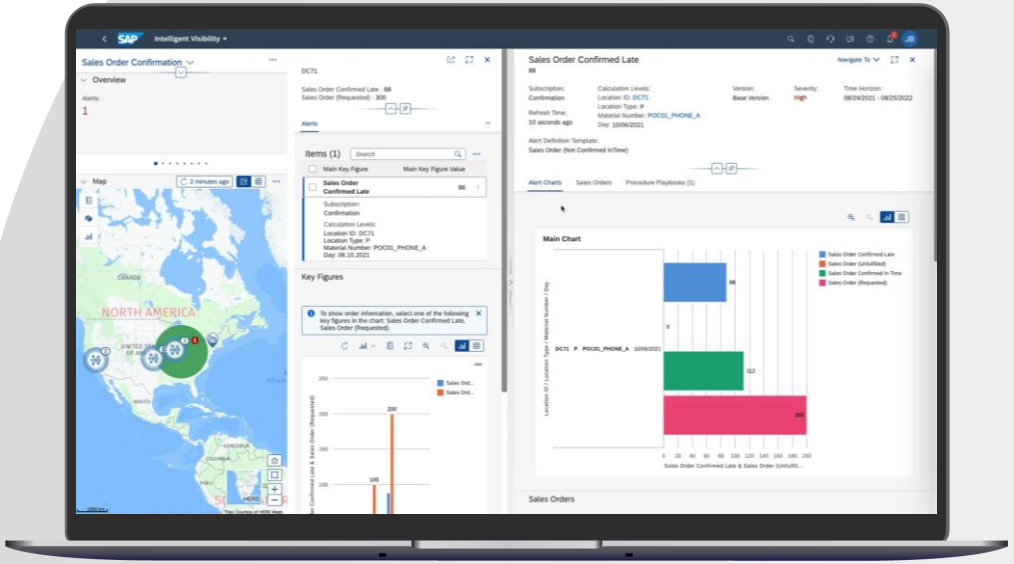
Track and Trace your Goods

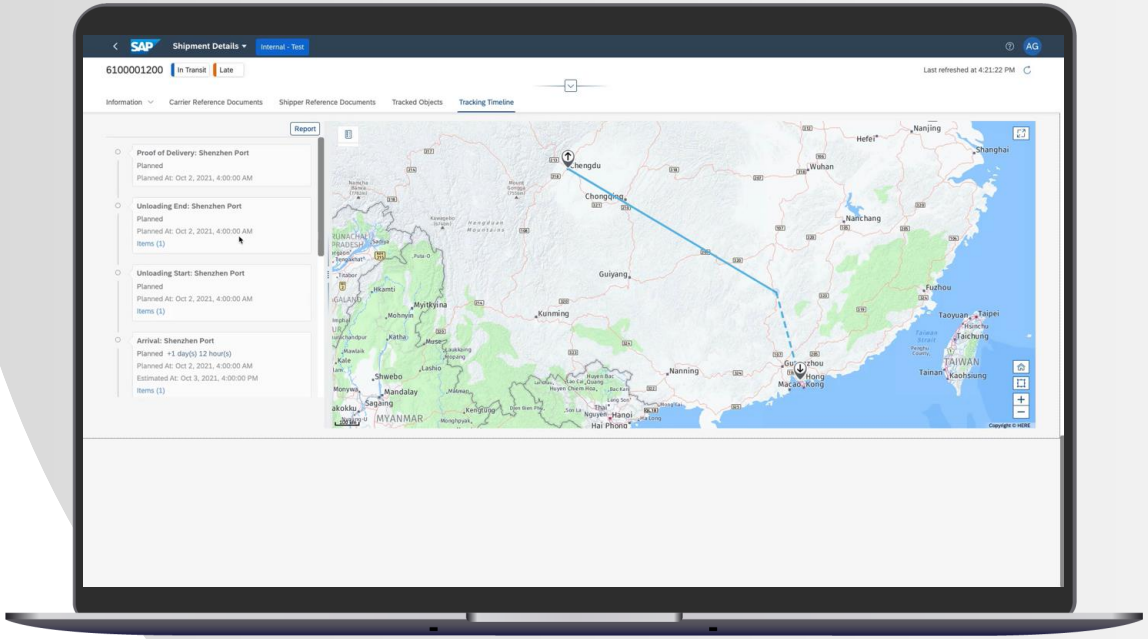
Achieve unparalleled visibility across all processes in your supply chain

Get faster response to supply chain disruptions

Collaborate with your third-party logistics providers to improve customer service.

Gain early insights into delayed shipments and consider impact and drive supply chain resiliency.





EXECUTE

Leverage proximity to core for transactional planning, scheduling, and order promising.

Execute – Manufacturing Planning and Scheduling

Optimize Production Planning and Constraints Management

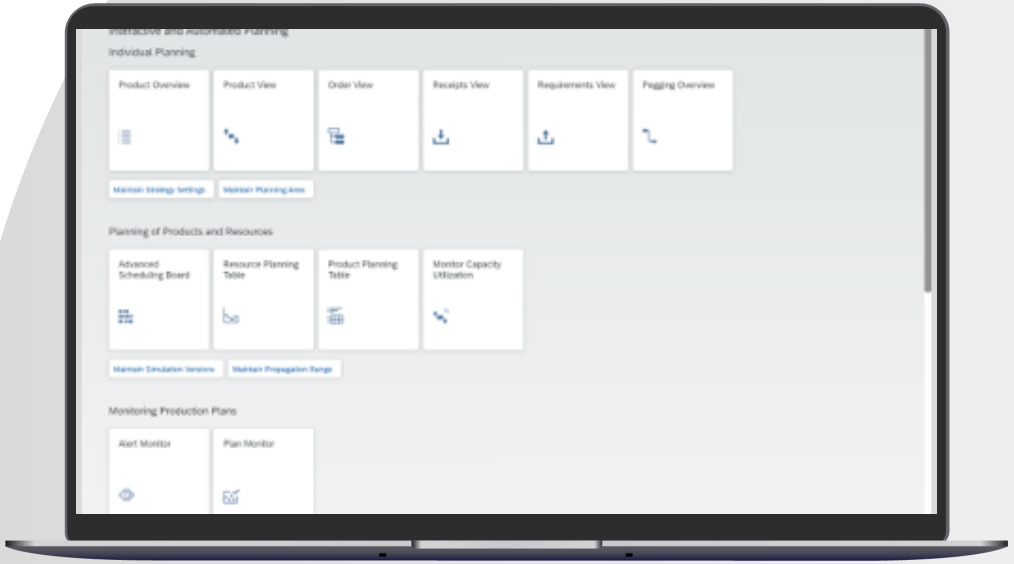
Plan production resources finitely beyond classic MRP functionality.

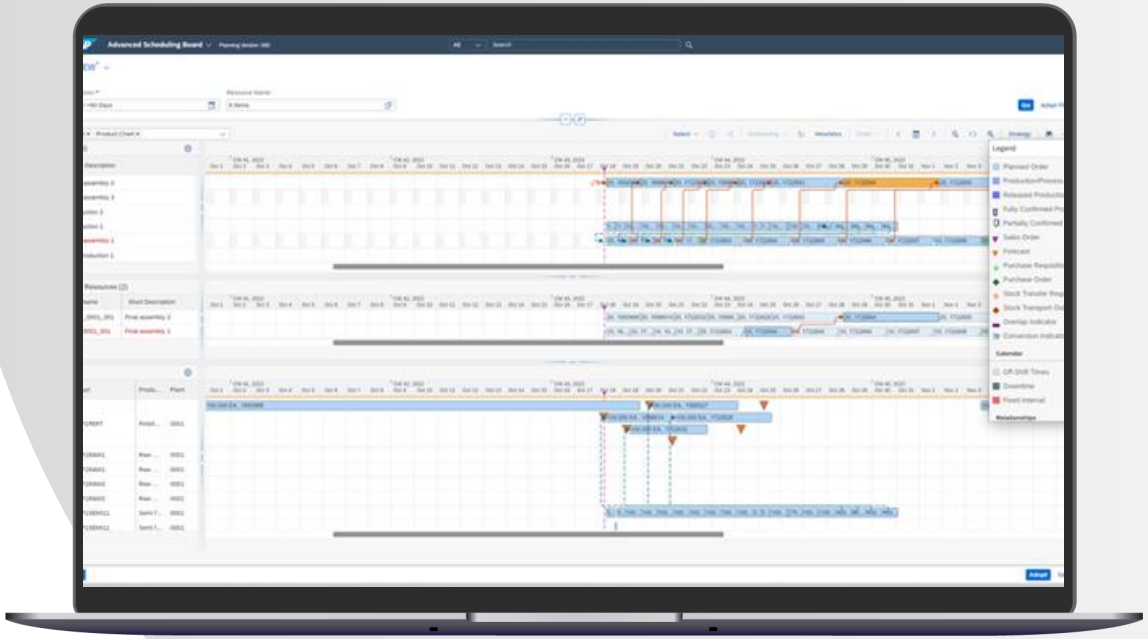
Consider capacity and material availability constraints in your planning model.

Integrate manufacturing master data to define the basis for production planning data structures.

Streamline scheduling processes throughout global production environments.

Perform detailed scheduling with a setup matrix, sequence constraints, and alternative modes.





Execute – Advanced Available-to-Promise

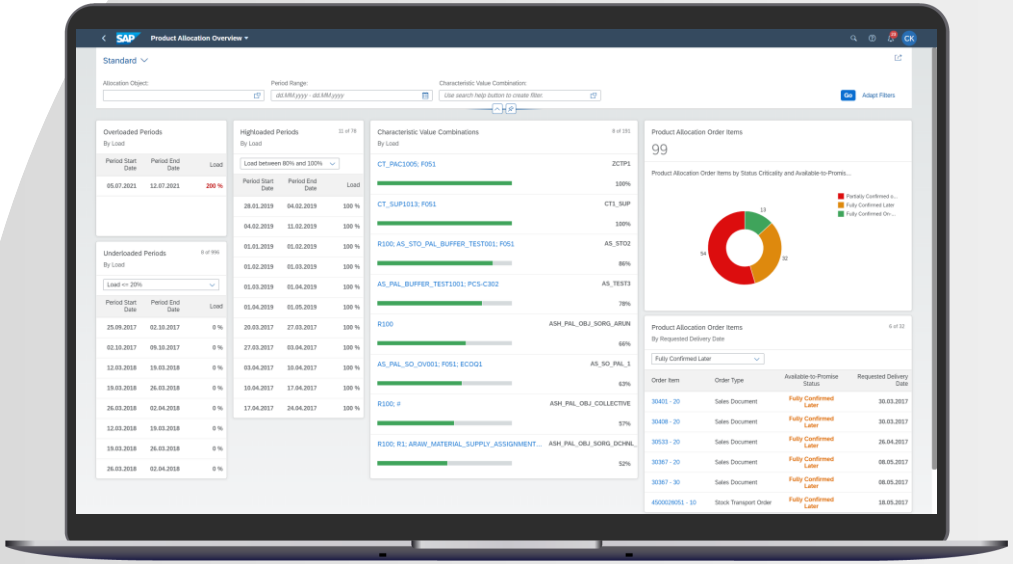
Manage Shortage Situations Quickly

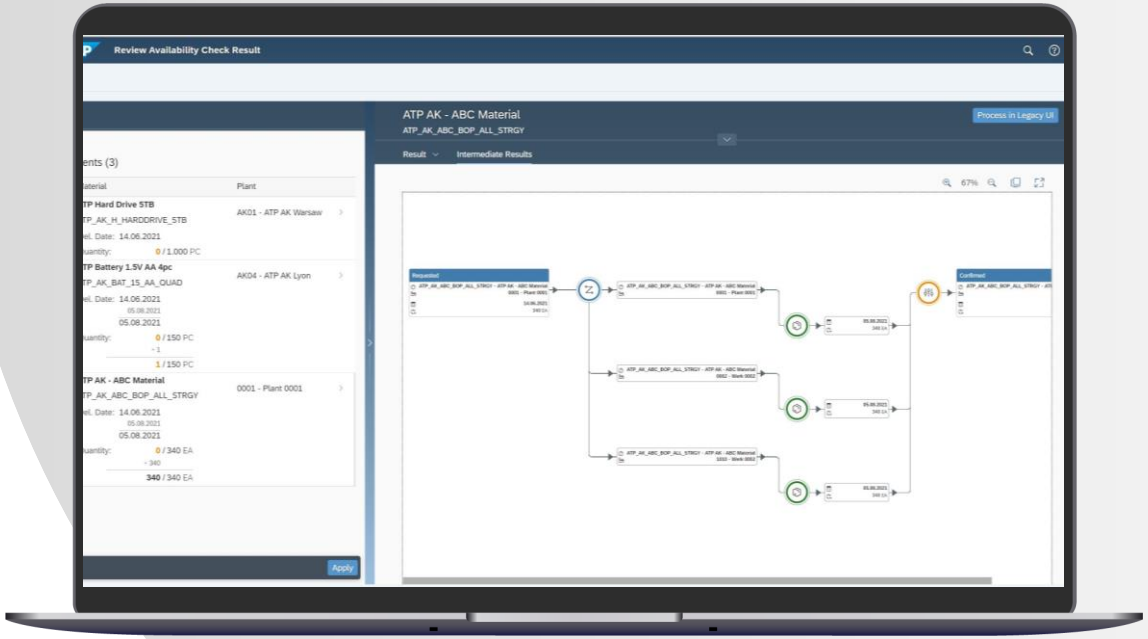
Promise orders in real time considering actual inventory across supply network, while protecting interests of key customers.

Protect business priorities during supply shortage by considering sales and delivery constraints during order commitment.

Improve order fill rate and reduce inventory by intelligently selecting alternative locations and/or substitutable products, during stock outage in requested delivery plant.

Confirm orders based on real time production and scheduling constraints, when the requested finished product is not available in full quantity





INNOVATE

Leverage AI technology to improve master data quality and detect anomalies, manage supply chain risk, and improve supply chain visibility and sustainability.

Innovate – Machine Learning and Artificial Intelligence

Boost Planning with AI

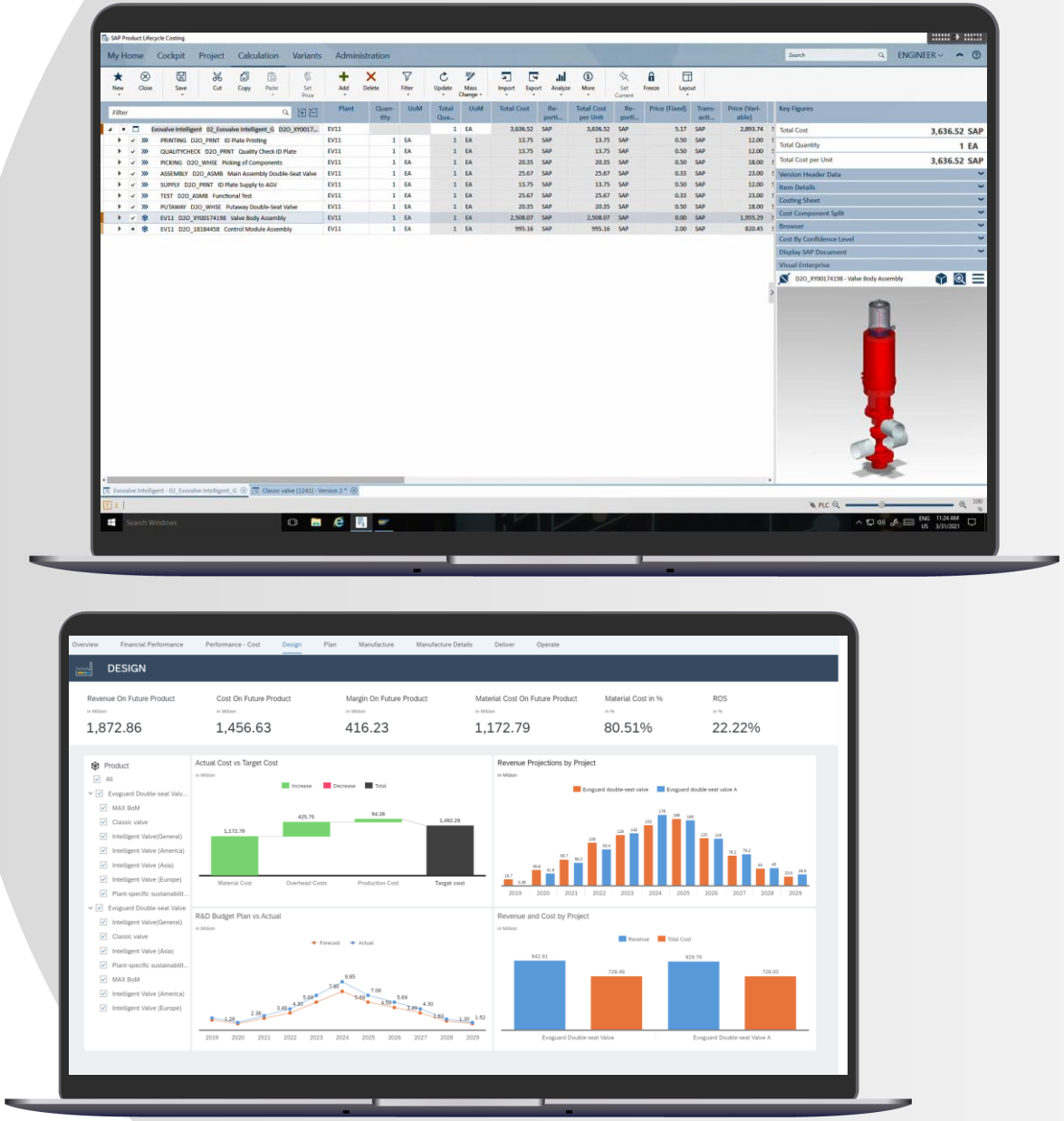
Detect level shifts and trend changes in sales history and use this information in forecasting

Improve forecasting with gradient boosting and next-generation demand sensing

Detect master data anomalies and get correction recommendations

Streamline alerts with machine learning based thresholds

Extend SAP IBP with SAP Business Technology Platform use cases and Missions in the SAP Discovery Center



Innovate – Supply Chain Control Tower

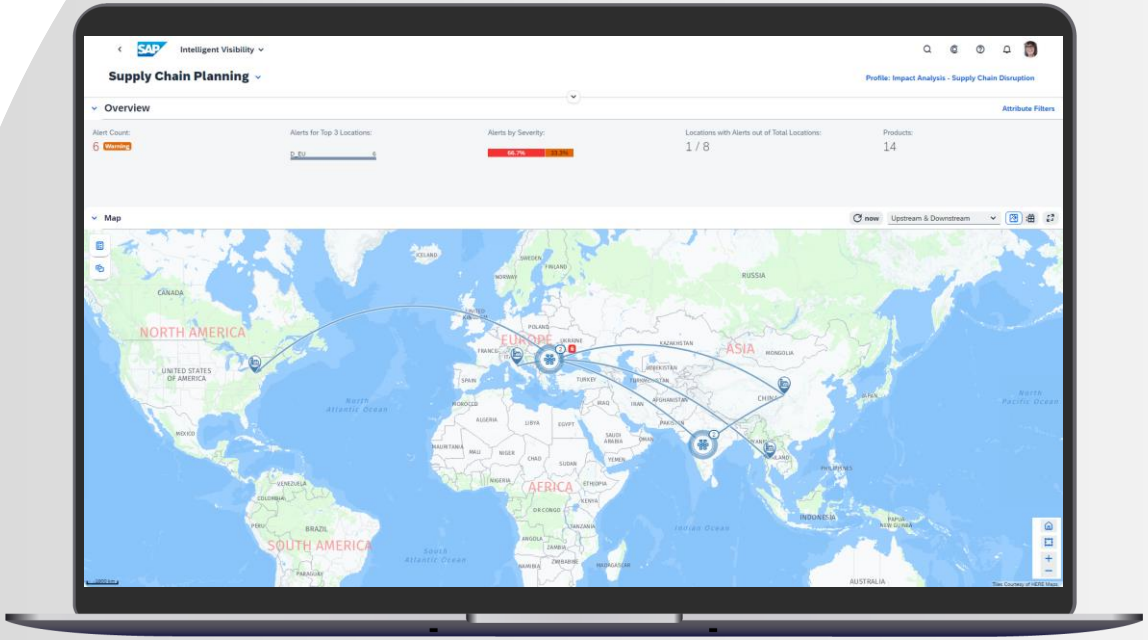
Gain Intelligent Visibility

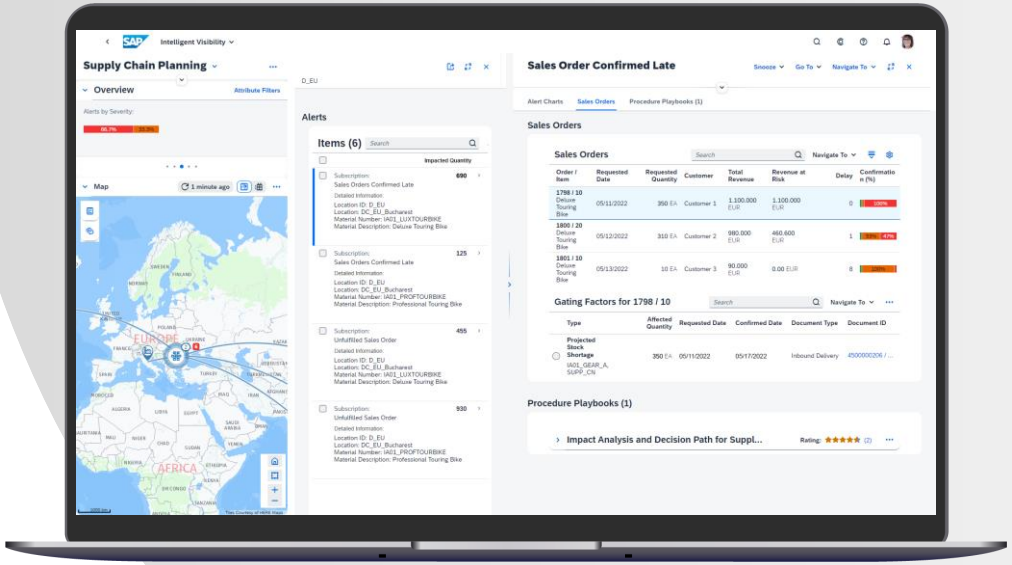
Ability to quickly **detecting supply chain disruptions** and effectively manage alerts

Intelligently analyze severe events and understand their impact on business

Turn Intelligent Visibility into actions by using guided procedures

Increase supply chain agility and be resilient with an exception-based planning





Innovate – Risk

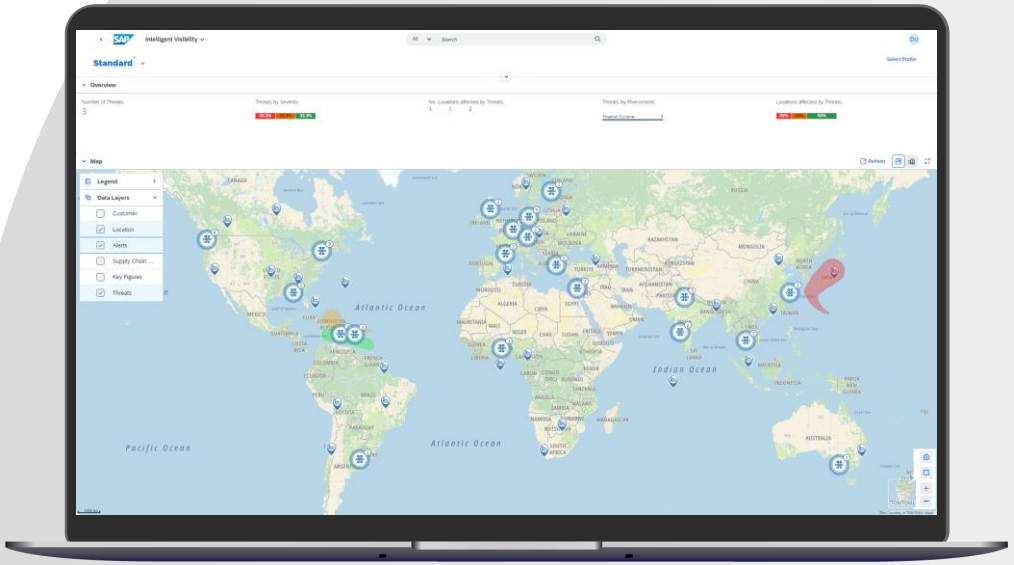
Mitigate and Manage Risk

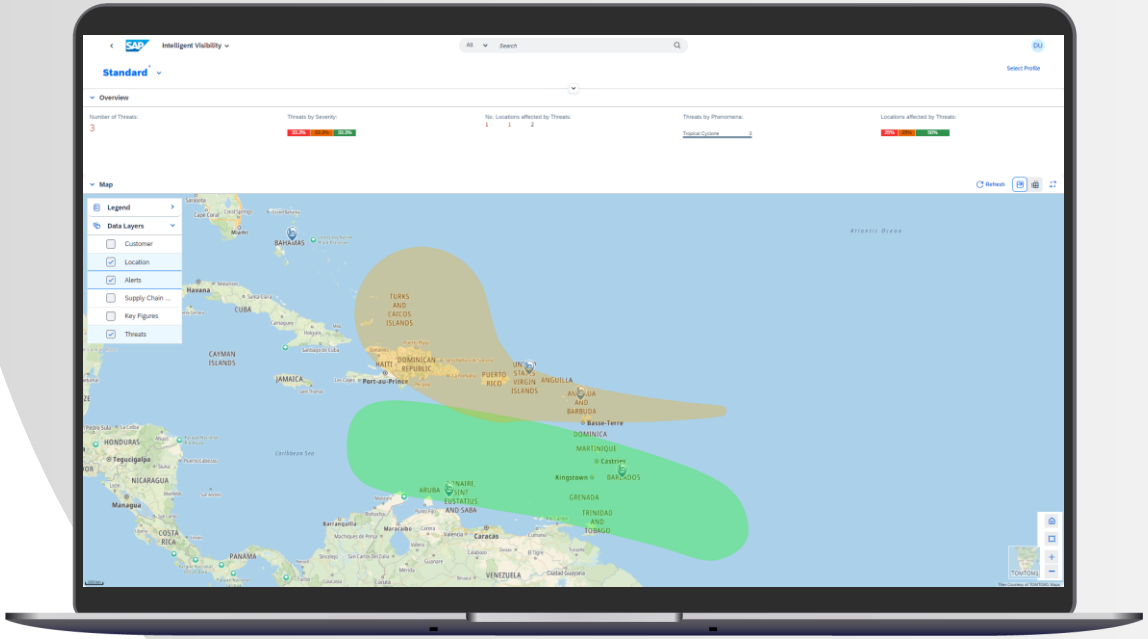
Enabling a risk-aware supply chain planning by combining the power of SAP and Everstream

Visualize external risk information in geographical map and dashboards together with planning data

Manage risks in Supply Chain via risk-based Alerting

Mitigate and assess risks by using guided procedures and impact analysis (e.g. value at risk)





Innovate – Sustainable Planning

Better Planning for More Sustainability

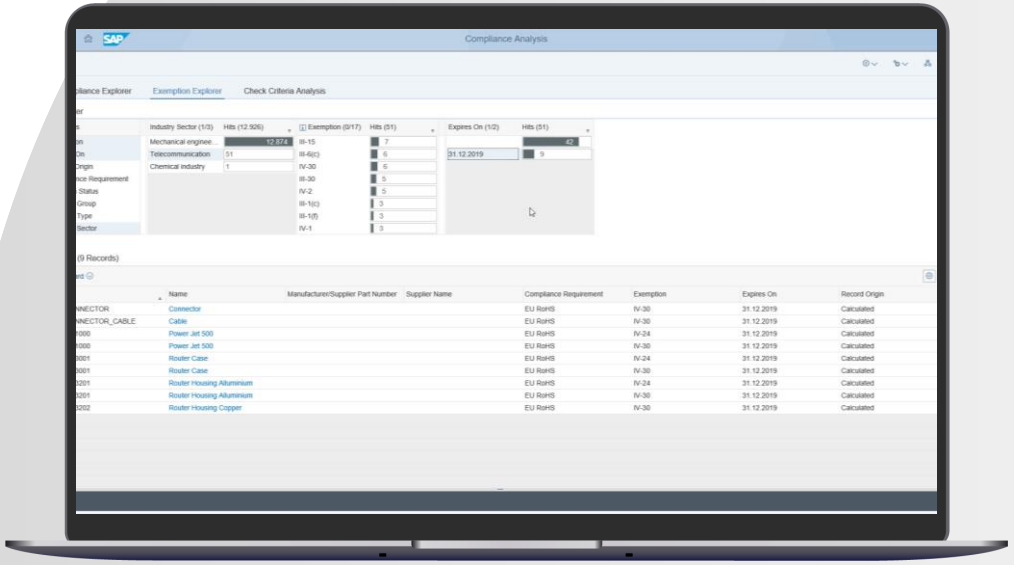
Accurate forecasting and optimized inventory positioning leads to products in the right place which reduces transportation emissions and resource consumption.

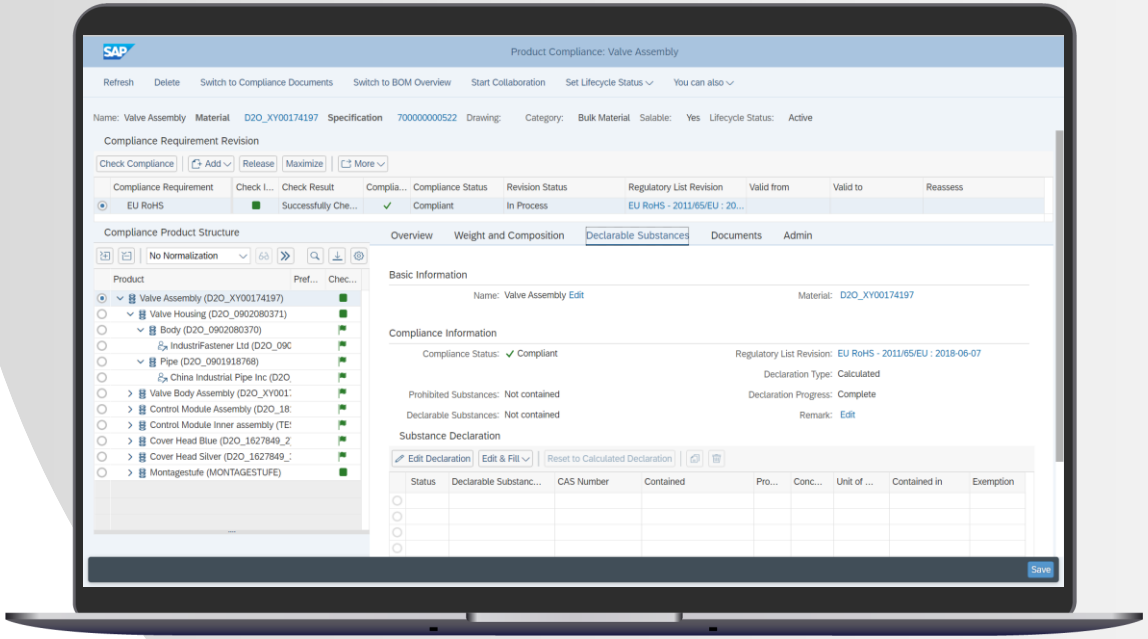
Plan resources, inventories and capacities to reduce emissions and company's overall environmental impact.

Better Demand-Supply matching **reduces cost, waste and emissions** by eliminating unnecessary storage and transportation

Monitor and analyze emissions and work on targeted resolutions with product footprint integration.

End-to-end Visibility into entire supply chain ecosystem to provide insights into risk and constraining factors to ensure regulatory & responsibility compliance.





SAP Supply Chain Planning – Wrap-Up

Command Center and Digital Twin

Real-time Analytics & Dashboards

Sales & Operations Execution

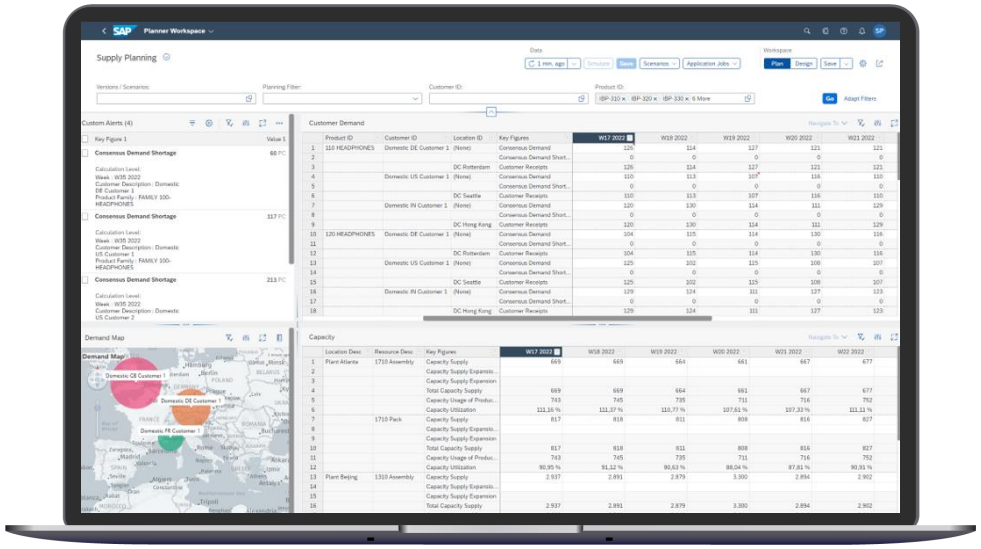
Demand Management, Forecasting & Sensing

Segmentation, Promotion Management, New Product Introduction

Multi-echelon Inventory Optimization & Simulation

Demand-Driven MRP

Open and Extensible Platform



Response & Supply Network Planning and Optimization

Shelf-Life Planning

Distribution Planning

Transport Load Building & Optimization

Production Planning & Detailed Scheduling

Availability to Promise Checks

Collaboration with the Business Network

External Data, Risks and Disruptions

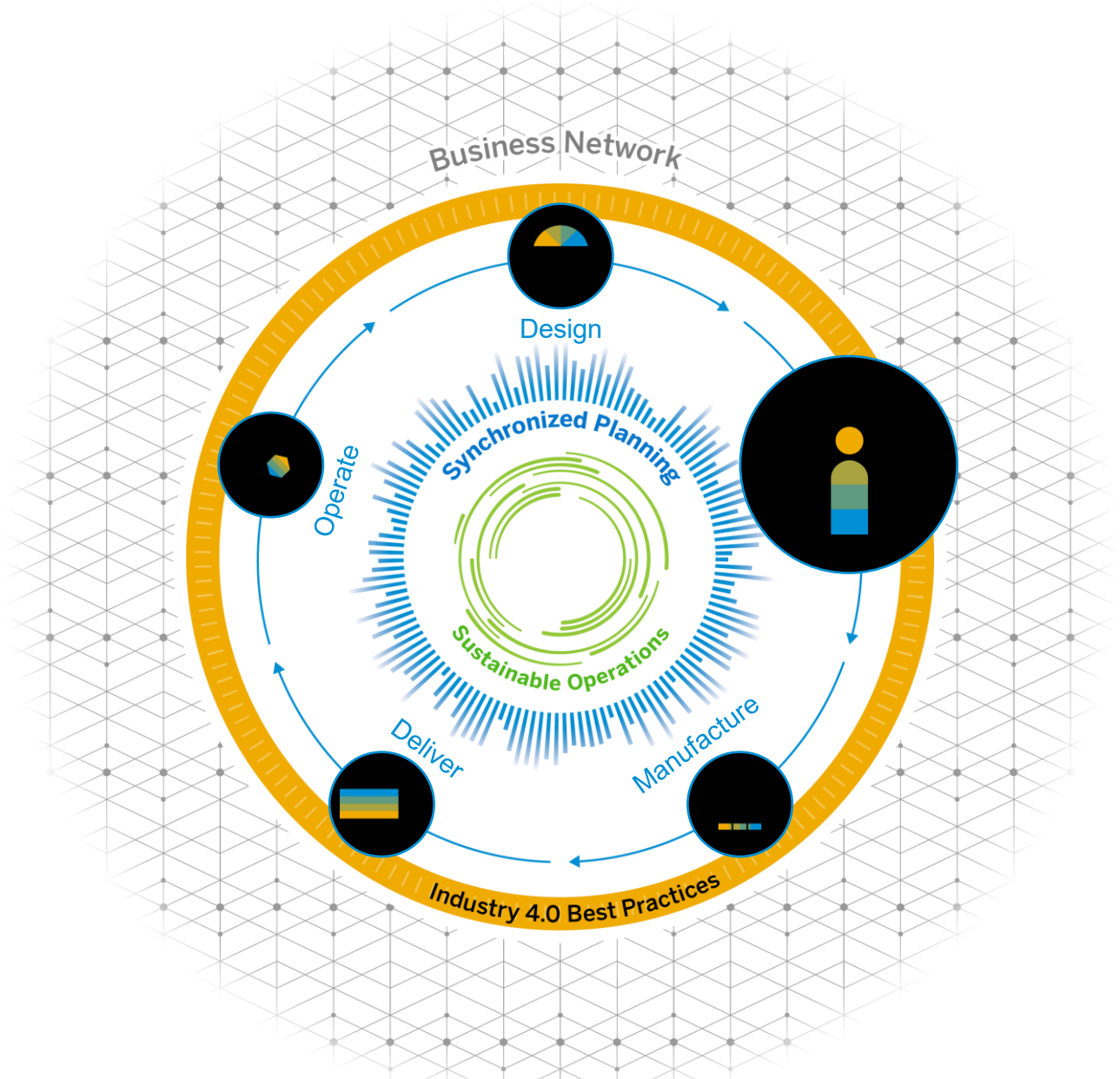
Sustainability

Scalable | Real-Time | AI-driven

Manage Risk & Uncertainty

Automate Decisions

Synchronize Planning



Plan

16% shorter order fulfillment lead time where constraint-based supply planning process is run at regular intervals

36% lower revenue loss due to stock-outs where forecasts are run for combinations of SKUs and inventory locations

SAP Performance Benchmarking insights pertain to year 2017 and run on overall data collected in the last 5 years. Number of data points analyzed for every insight is provided above. The insight states average performance difference between organizations with high and low maturity on the following best practice.

CASE STUDY

How Can You Take Demand and Supply Planning to the Next Level to Accelerate Growth

- More-transparent demand and supply planning with an enhanced ability to forecast demand
- Less human error aided by increased automation
- Time savings and greater efficiencies, such as with streamlined sales processes and financial closing
- Better access to data and an enhanced ability to analyze data

“By integrating SAP S/4HANA, SAP IBP for Supply Chain, and SAP Analytics Cloud, we have created the perfect conditions for an intelligent, data-driven co-operative that provides the best value for our growers.”
Steve Birgfeld, Vice President Information Technology and Services,
Blue Diamond Growers

PUBLIC

CASE STUDY

How can you optimize planning processes across 50 sites in almost 30 countries?

- Unified and simplified supply chain planning processes across lines of business, integrated with Viessmann Group's core SAP S/4HANA® suite
- Integrated demand planning, sales forecasting, and production planning processes
- Established a single set of numbers for planning sales volumes, revenues, and margins
- Enhanced forecasting accuracy with superior statistical forecasting methods and improved collaboration
- Empowered teams to predict and fulfill future demand more profitably

"SAP IBP is the key solution for our journey to end-to-end supply chain planning. The implementation has significantly improved our planning processes and helps us to make the right decisions more quickly."
Pascal Wölk, Project Manager – E2E Supply Chain Management,
Viessmann Climate Solutions SE

VIESSMANN

PUBLIC

Don’t invite risk.
Prevent it.

PUBLIC

Thank you.

Contact information:

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Appendix