

Integrated demand & sales planning for improved efficiency and profitability

DEMAND & SUPPLY CHAIN PLANNING



PSI - Software excellence for steel & aluminum producers

Achieve optimal balance in metals production with PSImetals



Navigating the complexities of metals production

Demand & Sales Planning in metals production involves making difficult decisions across a complex supply chain. Long lead times, limited production capacity and changing demand patterns make the process even more challenging.

Challenges:

- ✓ **Complex production networks**
- ✓ **Long lead times**
- ✓ **Campaign & capacity constraints**
- ✓ **Dynamic demand patterns**

Key decisions:

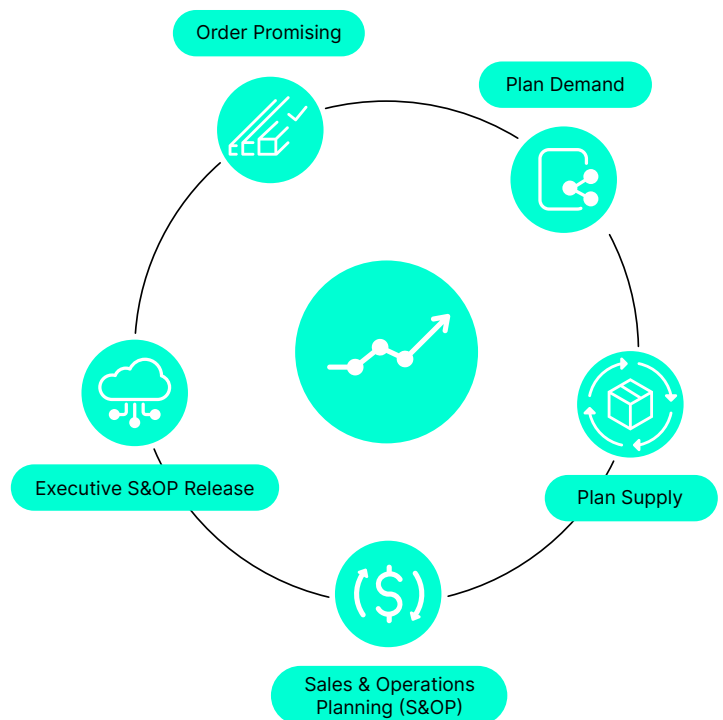
- ✓ **Product mix & work-in-progress stock targets**
- ✓ **Sales quota plans**
- ✓ **Operation plan agreements**
- ✓ **Outsourcing requirements**
- ✓ **Interplant transfers**

Addressing stakeholder conflicts

Different stakeholders—procurement, demand planning, supply chain planning, sales, production planning and plant management—often have conflicting objectives and key performance indicators. For example, procurement might prioritize grouping raw material purchases and planning long production campaigns, while sales may require faster stock rotation and management often aims to minimize inventory levels. The challenge is to find an optimal trade off within the sales planning triangle of sales revenue, production costs and material holding costs.

Optimized collaborative decision-making

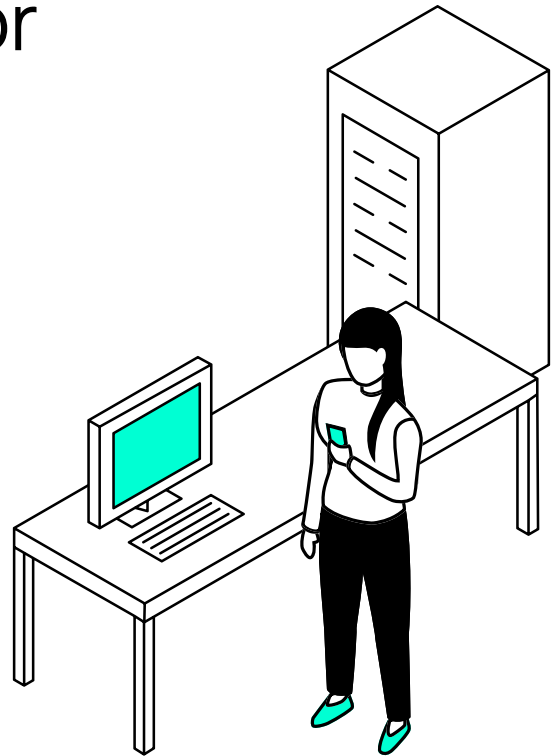
PSI metals Demand & Sales Planning provides a solution by enabling optimized, collaborative and informed decision-making. The system ensures efficient and transparent communications between all stakeholders in a multi-user environment.



Integrated functions for optimal planning

The PSImetals Demand & Sales Planning application integrates three key functions:

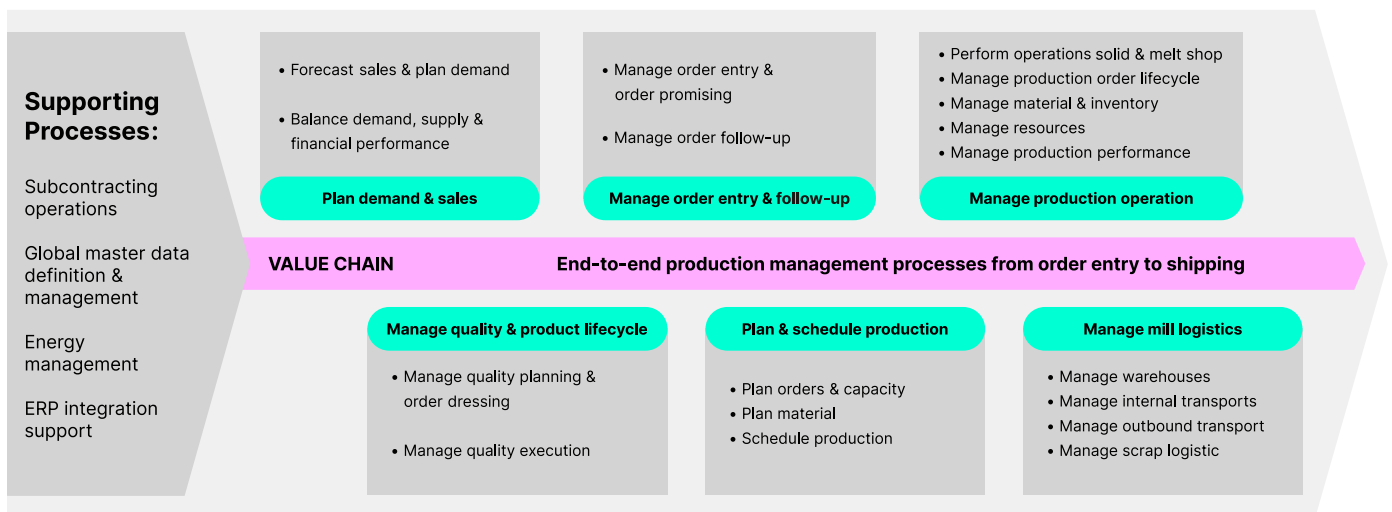
- ✓ PSImetals Demand Management
- ✓ PSImetals Sales & Operations Planning
- ✓ PSImetals Due Date Quoting



These functions work together to help metals producers generate optimized demand plans, supply plans and quota plans, aligning production requirements and capacity with business targets.

PSImetals Demand & Sales Planning empowers metals producers to balance demand and supply effectively, thereby supporting profitable and reliable order fulfilment.

PSImetals - Business process coverage



Balancing stakeholder objectives for optimal outcomes



I want large quantities of similar products to achieve purchase discounts.



Procurement



I want long production batches.



Production Planner



I want low inventory levels.



Operations Manager



"I want regular turnover of different slab formats. I want high availability of finished goods.



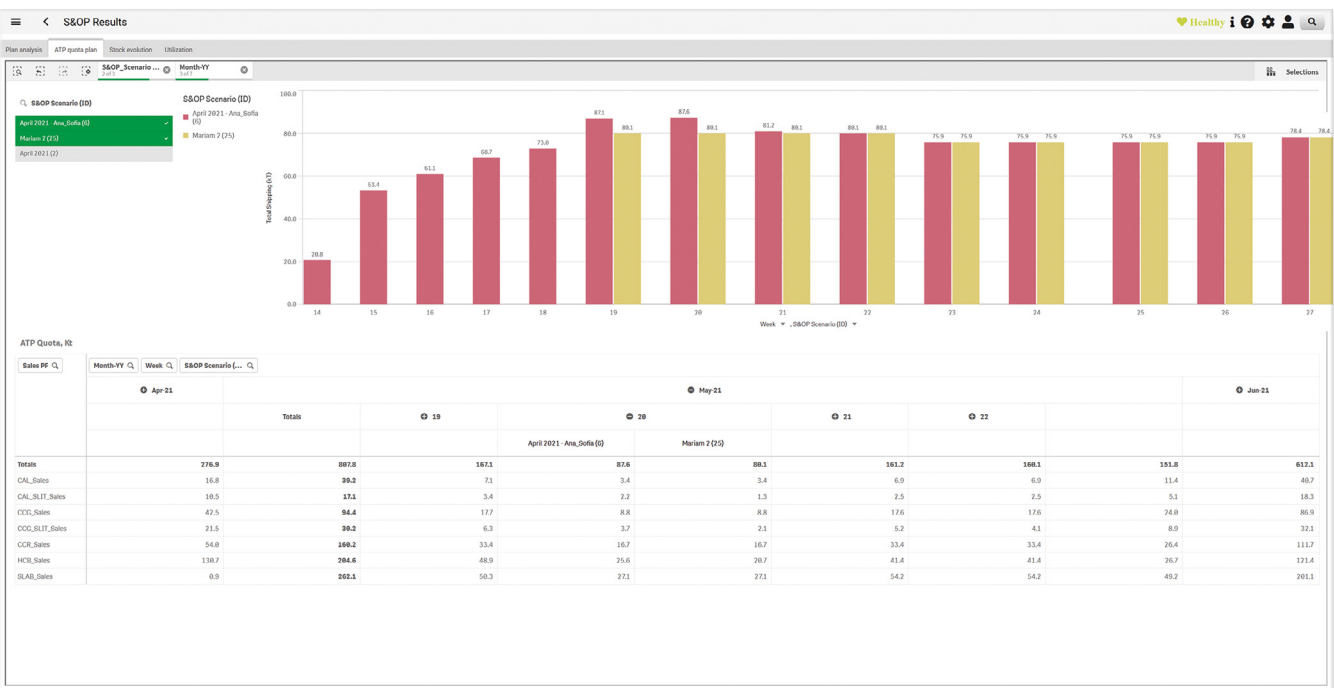
Sales

	Objectives	KPIs
Procurement	✓ group purchase to achieve orders for discounts	✓ price competitiveness & on time deliveries ✓ supplier lead-time ✓ accuracy on purchase orders and invoicing
Sales	✓ increase market size/share ✓ high availability of finished goods ✓ earnings growth ✓ reliable order promising	✓ profitability ✓ customer satisfaction ✓ service level
Production planner	✓ reliable and up-to-date capacity plan	✓ fulfill delivery promises on time & in full ✓ inventory levels ✓ lead-times ✓ capacity utilization
Operations manager	✓ optimized throughput, maintenance, shifts, etc.	✓ produced tons ready for dispatch per month ✓ manage inventory turnover

Optimized decision-making

The **supply chain manager** has the task of striking a balance between all these different requirements, objectives and KPIs in order to find the best course of action.

PSImetals Demand & Sales Planning provides a comprehensive solution to balance these conflicting priorities through optimized, collaborative and informed decision-making. By seamlessly calculating alternative demand and supply plan scenarios, supply chain managers can select the scenario that best fits their needs.



ATP quota “what-if” scenario comparison

Features:

- ✔ Integrated Demand Management, Sales & Operations Planning and Due Date Quoting
- ✔ Real-time data integration for accurate demand forecasts
- ✔ Collaborative tools for stakeholder communication
- ✔ Flexible production planning and strategic outsourcing

Benefits:

- ✓ Enhanced efficiency and reduced production costs
- ✓ Improved customer satisfaction through reliable delivery
- ✓ Optimized inventory levels for cost savings
- ✓ Streamlined operations and better decision-making

Tailored software solutions for the diverse needs of metals production

PSImetals solutions are designed to meet the unique challenges of each metals manufacturing market segment, enabling producers to achieve greater operational efficiency, improved forecasting accuracy and enhanced market responsiveness.

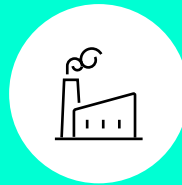


Multi-plant & vertically integrated producers

Managing a complex supply chain with multiple parallel bottlenecks exponentially increases the number of variables to control.

These variables include product families, production routes, and inventory points, each with its own specific characteristics.

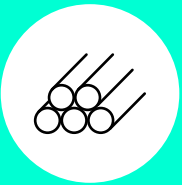
Streamlined complex supply chain networks and aligned production across multiple facilities enhance efficiency and responsiveness.



Independent facilities / decentralized operations

Simplifying the production process allows for a streamlined Demand & Sales Planning process with fewer steps, while still emphasizing the important details to consider in each step.

Optimized demand and sales planning for facilities operating independently ensures seamless coordination and alignment.

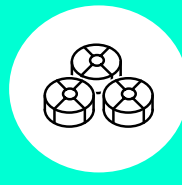


Specialized long & tube/pipe producers

Campaign-based production with complex batching cycles and long repetition rate.

Complex landscape of market dynamics makes it difficult to accurately forecast demand and establish stable prices.

An agile and adaptive demand and sales planning process is required to handle the challenges of complex batching cycles and volatile market prices.



Service centers, value-added processors & specialty manufacturers

Market sensitivity increases the complexity of forecasting demand accurately for each specialized product line.

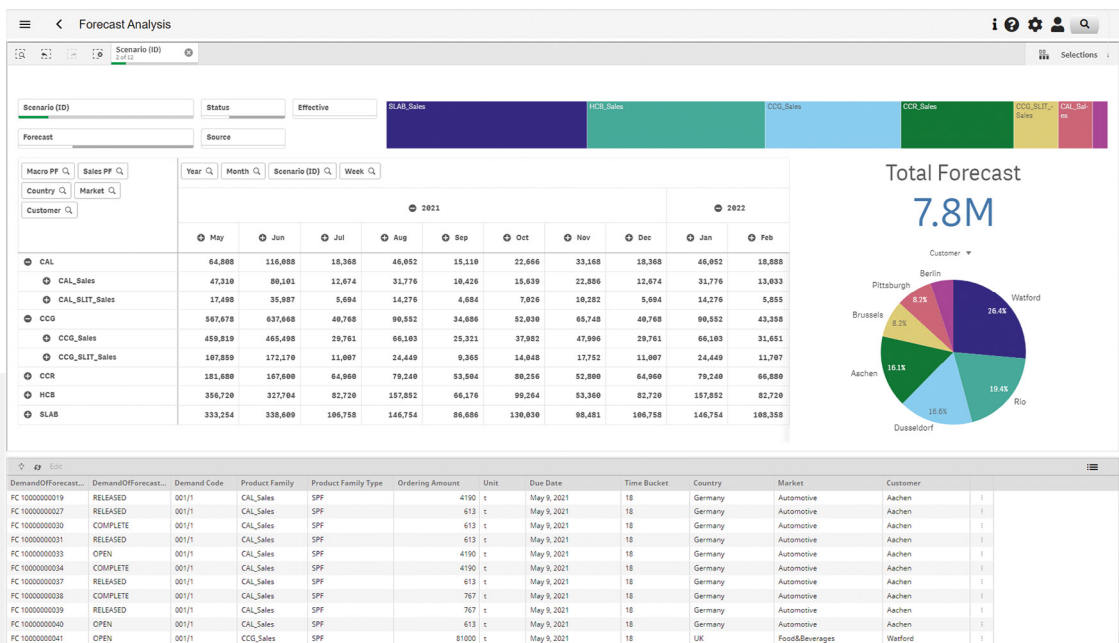
A dynamic market requires flexibility and supply chain integration with both mills and customers.

Enhance inventory management and operational efficiency, ensuring timely supply of materials, providing real-time insights and data integration for better decision-making.

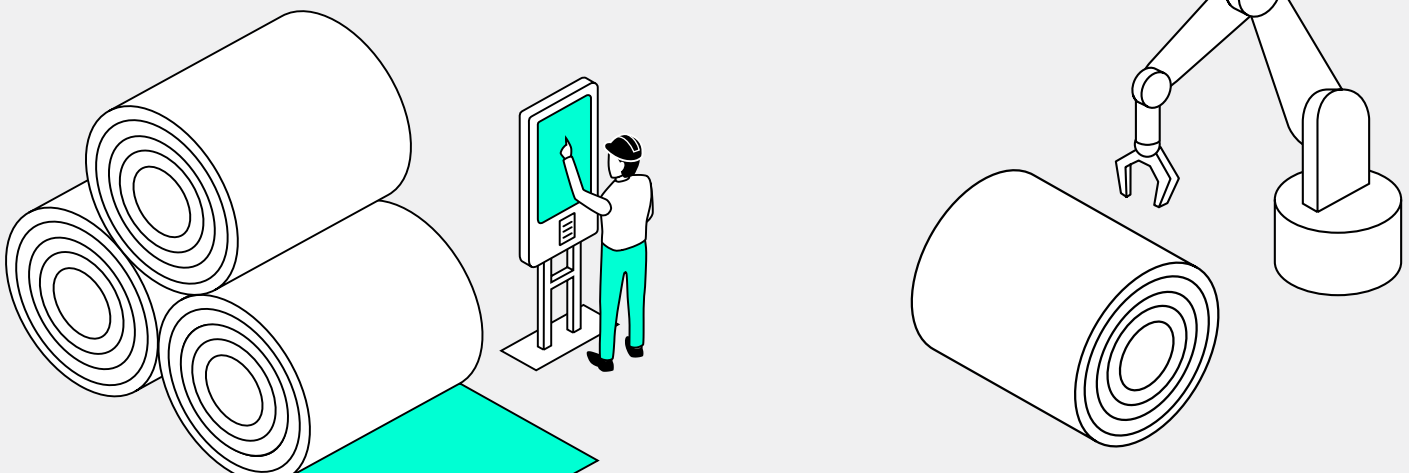
Optimal demand fulfillment – from demand planning to order monitoring

PSImetals Demand Management seamlessly complements and integrates with Enterprise Resource Planning systems, providing advanced forecasting management and demand fulfillment monitoring features tailored to the metals industry. The Forecast Management functionality empowers planners to create and consolidate consensus demand plans using scenario-based analysis to support the Sales &

Operations Planning process. Meanwhile the PSImetals Demand Monitoring functionality ensures smooth operations by tracking quota consumption, coordinating sales and production orders and managing demand status across all order types. Thus keeping your production aligned and responsive to market needs.



Forecast "What-if" Scenario Analysis



Optimize profits with aligned production and market demand

The PSImetals Sales & Operations Planning function aligns market demand with the production capabilities of steel and aluminum producers to ensure profitability. It evaluates demand based on capacity, costs and pricing to select the

most profitable opportunities. It also optimizes production site selection and capacity allocation, as well as strategically imports intermediate products such as slabs and coils to efficiently capture market opportunities.

Benefits of Sales & Operations Planning:

- ✓ **Enhanced customer service:** Achieve better on-time delivery rates
- ✓ **Profit optimization:** Calculate the optimal capacity allocation plan by considering production site alternatives, varying order/ line production costs and selling prices
- ✓ **Production site synergy:** Leverage alternative production sites and import strategies for intermediate products
- ✓ **Improved stock control:** Achieve better stock level management for intermediate and final products through effective capacity planning
- ✓ **Reduced lead times:** Balance capacity to avoid bottlenecks and shorten total lead times, enhancing overall efficiency

S&OP Results

Plan analysis ATP quota plan Stock evolution Utilization

No selections applied

S&OP Scenario Overview

S&OP Scenario (ID)	Status	Effective	Calendar Scenario (ID)	Forecast Scenario (ID)	Utilization rate (%)	Total Cost (M€)	Total revenue (M€)	Gross Profit (M€)	Profit Margin (%)
Base Scenario (S)	SOLVED	No	Calendar Scenario for MVF (2)	Baseline Forecast (18)	39%	124.1	152.4	28.3	19%
SOP Scenario for MVF - released (S)	RELEASED	No	Calendar Scenario for MVF (2)	Forecast Scenario for MVF - released (18)	48%	0.0	0.0	0.0	-
SOP Scenario for MVF (3)	SOLVED	No	Calendar Scenario for MVF (2)	Forecast Scenario for MVF - released (18)	48%	0.0	0.0	0.0	-

Flow (kt) Total Shipping (kt) Stock (kt) Utilization (%) Purchase (kt) Energy (MWh) Scrap (t) Zinc (t) Cost (M€) Revenue (M€)

Flow

Lines S&OP Scenario ... Month-YY Week

Sales PF

	Apr-21	May-21	Jun-21	Jul-21
Base Scenario (S)				
SOP Scenario for MVF - released (S)				
SOP Scenario for MVF (3)				
CC1	393.7	24.0	420.0	84.0
CC2	361.9	24.0	420.0	84.0
HSM1	447.0	39.9	454.6	139.8
HCB	141.1		241.5	139.8
HCB_PLTM1	395.9	39.9	213.1	
PLTM1	284.5	9.6	204.9	
CG1	73.0	3.2	81.3	
CG2	39.6		29.3	
CALL	55.7	1.4	49.6	
CSLIT1	42.7	4.4	36.8	

S & OP Results Analysis

Streamline customer responsiveness with PSImetals Due Date Quoting

PSImetals Due Date Quoting provides customers with reliable delivery dates for new orders. This is achieved by leveraging the latest Sales & Operations Plan which allocates forecasted demand to available capacity and generates accurate available-to-promise quotas. Due Date Quoting can also support capable-to-promise checks, assessing

alternative production routes, resources and material availability to ensure reliable delivery commitments. Once integrated into the Enterprise Resource Planning system, these quotes set the official due dates, guiding planning and customer interactions.

Key features of Due Date Quoting:

- ✓ **Inquiry Management:** Efficiently handle customer inquiries and requests
- ✓ **Sales Plan Quota Management:** Manage sales quotas and allocations effectively
- ✓ **Online ATP/CTP Quoting:** Provide real-time, accurate delivery date quotes

Objectives & benefits:

- ✓ **Faster response times:** Quickly manage “on the spot” customer requests
- ✓ **Reliable due date quotes:** Enhance customer trust with accurate delivery timelines
- ✓ **Flexible quoting strategies:** Utilize various strategies to meet diverse customer needs
- ✓ **Transparency:** Maintain clear visibility on quota consumption and adherence across different commercial segments
- ✓ **Seamless ERP integration:** Ensure smooth operations with online service directly linked to your Enterprise Resource Planning system

Demand Confirmation Overview

Elevate your operational efficiency and profitability with PSImetals production management solutions

Track demand fulfilment in alignment with Enterprise Resource Planning and generate future demand forecasts and consensus demand plans with Demand Management. PSImetals Sales & Operations Planning ensures alignment between market demand

and production capabilities, optimizing site selection and capacity allocation to maximize profits. Streamline customer interactions with Due Date Quoting to provide accurate delivery dates and reliable service.

Transform your metals production planning with PSImetals. Contact us today for a demo and see how we can help you achieve the perfect balance.

WE ARE HERE FOR YOU!



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