

Sales and Operations Planning: steering demand and capacity in alignment

Sales and Operations Planning (S&OP) is a monthly, cross-functional process that aligns demand planning, production planning and procurement on a coordinated operational planning scenario. For buyers and supply chain managers, S&OP is the central instrument for making demand forecasts binding and deriving capacity, ordering and contracting decisions from them. The term is often used synonymously with integrated business planning; in the English-speaking world, the term Integrated Business Planning (IBP) has additionally become established.

Key facts

- S&OP is a recurring, typically monthly cycle consisting of data basis, demand planning, supply review, reconciliation and management decision.
- The focus is on an agreed plan at product group or product family level, not at individual article level.
- Buyers use the results for framework agreements, delivery schedules and capacity arrangements with suppliers.
- Typical KPIs are forecast accuracy, delivery reliability, inventory coverage and adherence of production volume to plan.
- Without clear approval limits and decision-making authority, S&OP often remains a purely reporting process with no impact.
- The results of S&OP also draw on data from ABC-XYZ analysis and the maintenance of planning parameters.

Definition: Sales and Operations Planning

Sales and Operations Planning denotes a continuous planning process that reconciles sales demand planning with the capabilities of production, procurement and finance, leading to a binding, cross-functional plan.

Distinction from operational planning

S&OP operates at medium-term level, typically with a horizon of 12 to 24 months, and plans product groups, families or capacities. Operational planning, by contrast, controls individual articles, order quantities and dates over short periods. The two levels interlock: the agreed S&OP plan provides the framework within which operational planning works with its parameters. Those who fail to permanently integrate S&OP results and material availability risk plan figures that no one can implement in day-to-day business.

Relevance for technical procurement

For procurement, S&OP is the most important reliable source of medium-term demand figures. Framework agreements can be concluded, capacity reservations negotiated and lead times for long-lead materials or outsourced manufacturing planned on this basis. Especially for purchased parts

with long procurement lead times, the quality of the S&OP figures determines whether reservations are realistic or panic buying is the result. The process also creates a single shared figure between sales, production and procurement instead of competing planning statuses.

Procedure and methods of the S&OP process

The classic process follows a recurring cycle with clearly defined roles and deadlines. In practice the design varies, but the core steps have become established as the standard.

Monthly cycle in five steps

The cycle begins with data preparation: actual sales, inventories, order backlog and capacities are consolidated. This is followed by demand planning by sales and marketing, supported by quantitative forecasts. In the supply review, production examines together with procurement and logistics whether demand can be met with capacities and supplier requirements. In the reconciliation step, differences are negotiated and scenarios are evaluated with their financial impacts. The cycle concludes with the management decision, in which executive management releases the plan as binding.

Data basis and planning level

S&OP requires a consolidated data basis from ERP and, where applicable, specialised planning systems. The right planning level is crucial: if too detailed, the process sinks into day-to-day operations; if too coarse, capacity and procurement statements remain vague. A hierarchy in which planning takes place at product group level and is broken down to relevant articles or material groups as needed has often proven effective. Plan quality depends heavily on the maintenance of master data.

Scenarios and value-added planning

Mature organisations work with several scenarios, for example a base plan plus an optimistic and a pessimistic case, and evaluate each in terms of revenue, contribution margin, capacity requirements and procurement risks. For procurement this provides concrete scope for action: which materials must be procured early in the event of order volume increases, where lead-time risks exist, which framework volumes are ready for negotiation? Scenarios turn S&OP into a steering instrument rather than a mere coordination round.

Key KPIs and metrics in S&OP

Without robust metrics, S&OP remains a discussion of opinions. The metrics should reflect plan quality, execution adherence and the financial consequences.

Planning and forecast quality

The central metric is forecast accuracy, i.e. the agreement between planning and actual sales, often supplemented by plan deviations at product group level. For procurement, this determines the reliability of demand notifications to suppliers. Those who systematically evaluate forecasts recognise systematic biases, such as habitual optimism on the sales side or buffer building in operational planning. The results feed directly back into the maintenance of planning parameters, such as safety stock and lot sizes.

Supply and inventory metrics

On the supply side, the key figures are supplier delivery reliability, inventory coverage, capacity

utilisation and adherence of production volumes to plan. Inventory build-up between plan and reality shows where buffers are hidden. Combining this with an ABC-XYZ analysis is helpful: A-parts with unstable demand (X/Y/Z mix) deserve closer S&OP attention than C-parts with stable demand. In this way, analysis effort is concentrated on the materially relevant items.

Process metrics

The process itself should also be measured: punctuality of the sub-meetings, proportion of decisions with documented rationale, number of follow-up queries between cycles and proportion of participants with decision-making authority. In practice, S&OP meetings often fail due to a lack of authority, because representatives without approval limits have to postpone decisions. Clear escalation paths and thresholds for volume, schedule and price deviations are a prerequisite for quick agreements.

Risks, pitfalls and controls in S&OP

In practice, S&OP rarely fails because of the methodology, but rather because of organisation, data quality and lack of binding effect. Deliberate control mechanisms are therefore necessary.

Typical implementation errors

S&OP is often misunderstood as a sales forecast meeting without capacity checks and without consequences. Other sources of error include planning at the wrong level of detail, lack of procurement involvement, monthly cycles that effectively run late due to delayed data, and a focus on volumes without evaluation in terms of revenue and costs. Siloing from adjacent topics is also common: price, surcharge and escalation mechanisms in contracts, such as freight surcharges, energy price surcharges or carbon pricing, should be included in the scenario analysis, as they significantly change planned costs.

Controls and binding effect

Effective controls start with governance: documented decisions with owners and deadlines, defined procurement approval limits, and a regular reconciliation between the S&OP plan and implemented purchase orders. Deviations above defined thresholds require a documented explanation. Alignment with contractual instruments is also important: changes to volumes or schedules can be mapped via a change order or amendments to the terms and conditions. Legal effects, for example of unilateral volume changes in framework agreements, should be examined contractually and legally on a case-by-case basis.

Role of procurement and supplier integration

Procurement should not merely be a recipient but an active shaper of S&OP: it knows lead times, supplier capacity bottlenecks and the price effects of volume changes. For strategic suppliers, involvement can take place through joint forecast exchanges, and in a broader sense also as co-creation with suppliers on capacity and technology issues. Their delivery schedule data can be reconciled with the S&OP figures and discrepancies clarified early. Supplier identifiers and uniform material numbers facilitate systematic data reconciliation.

Current developments: from S&OP to Integrated Business Planning

The term Integrated Business Planning (IBP) describes the further development of classic S&OP into company-wide, financially impactful planning that connects operational and strategic levels.

Digitalisation and forecasting support

Modern planning systems use statistical methods and increasingly artificial intelligence for forecasting support, scenario evaluation and automation of data preparation. However, the benefit depends on data quality and process discipline; software cannot replace missing decision-making authority. Procurement processes are also shifting to digital channels: in addition to S&OP, e-procurement supports the implementation of the agreed requirements, and electronic tendering or an e-auction come into play for market-side tenders of larger volumes.

Resilience, sustainability and cost targets

S&OP is increasingly being extended with risk perspectives: supply chain shocks, energy price volatility and regulation, for example on conflict minerals or carbon accounting, push topics into the planning horizon. Buyers accordingly integrate cost and sustainability goals into scenarios and use methods such as target costing to derive cost targets for purchased parts from market and plan figures. Fundamental decisions such as termination for cause in contracts or long-term warranty agreements are also increasingly evaluated against the backdrop of S&OP scenarios.

Typical metrics

Forecast Accuracy: typically 70–90 %

Agreement between plan and actual at product group level; raw values without detail level are hardly comparable.

Supplier Delivery Reliability: > 95 %

Proportion of delivery schedules fulfilled on time; target values differ by material class.

Inventory Coverage: varies greatly by industry

S&OP planning should build inventory buffers selectively rather than across the board.

Adherence of Production Volume to Plan: > 90 %

Deviation between the agreed plan and the implemented production volume.

Practical example

A medium-sized mechanical engineering company with around 300 employees suffered from sales forecasts and procurement requirements drifting apart: long-lead parts were ordered too late and series material was overstocked in panic buying. The company introduced a monthly S&OP cycle and involved procurement from the first cycle onwards.

- Demand planning at 15 product groups instead of article level; A and X/Y parts are identified via an ABC-XYZ analysis and considered separately.
- Monthly cycle with a fixed sequence: data basis, forecast review, supply review with procurement and production, reconciliation with evaluation in revenue and costs, management decision.
- Introduction of documented approval limits so that volume and schedule changes can be decided in the meeting.
- Reconciliation of S&OP figures with delivery schedules to key suppliers; deviations of more than ten percent are addressed in the next cycle.

Conclusion

Sales and Operations Planning brings together demand, capacity and procurement in a binding plan and is therefore far more than a sales topic for technical procurement. The benefit only materialises

through binding effect: clear roles, measurable KPIs and decision-making authority within the process. Procurement should actively help shape S&OP, as it knows lead times, supplier capacities and price effects best. Those who consistently integrate the process with operational planning, contract management and supplier alignment reduce inventory and availability risks at the same time. The prerequisites are a solid data foundation and a willingness to discuss plan deviations openly.

Frequently asked questions

What does Sales and Operations Planning (S&OP) mean?

S&OP is a cross-functional planning process that reconciles demand forecasts with production and procurement capacity. The result is a binding, medium-term plan, typically at product group level with a horizon of 12 to 24 months. The process usually runs monthly in fixed steps and ends in a management decision.

What steps does the S&OP process include?

The classic cycle comprises five steps: data preparation and actual analysis, demand planning by sales, supply review by production, procurement and logistics, reconciliation of differences including scenario evaluation, and the binding management decision. Each step has defined roles, deadlines and output formats.

What role does procurement play in S&OP?

Procurement translates the agreed plan into sourcing actions: framework agreements, capacity reservations, delivery schedules and lead-time planning for long-lead items. It brings supplier capacities, price effects and procurement risks into the supply review. Active procurement involvement prevents plans that cannot be implemented on the supply side.

Which KPIs are relevant for S&OP?

Key metrics are forecast accuracy, supplier delivery reliability (on-time delivery), inventory coverage, capacity utilisation and adherence of actual production volumes to plan. In addition, process metrics such as meeting punctuality and decision rate indicate the maturity of the process. Combining these with an ABC-XYZ analysis focuses the analysis on relevant materials.

What is the difference between S&OP and Integrated Business Planning (IBP)?

IBP is understood as a further development of S&OP: it extends volume and capacity planning with financial impact analysis, strategic alignment and risk management across the entire planning horizon. In practice the boundaries are fluid; IBP places stronger emphasis on integration with corporate planning and controlling.

How often should an S&OP cycle run?

A monthly cycle with a fixed meeting schedule and defined sub-meetings has proven effective in practice. In very dynamic markets or with short product life cycles, shorter intervals for individual topics may make sense. What matters is consistent discipline rather than occasional ad-hoc meetings.