

Demand Sensing Forecast Engine for AI-Led Forecasting

AI-led forecasting intelligence for Demand Sensing and Demand Planning

Companies forecast across different planning horizons. Near-term teams need daily, item-location forecasts for replenishment and execution. Demand planning teams need longer-range forecasts to begin the consensus planning process, which ultimately drives plans around supply, capacity and financials. E2open's demand sensing forecast engine applies AI and machine learning to historical sales, current orders, promotions, point-of-sale information, leading indicators, and other downstream demand signals, then selects and tunes the best forecasting approach for each item, location, and channel horizon. The engine supports short-term execution through Demand Sensing and broader planning horizons through Demand Planning.

Traditional forecasting is often built around periodic cycles, historical demand, and broad manual adjustments. That model becomes harder to sustain as demand signals multiply, channels shift, and planners are asked to manage both immediate execution needs and longer-range business plans. The demand sensing forecast engine provides a common forecasting intelligence layer that adapts as demand drivers change.



Key features

- **Applies AI-led forecasting** across short- and long-term horizons, supporting both Demand Sensing and Demand Planning
- **Evaluates statistical and machine learning** techniques to select the best fit for each item, location, and time period
- **Integrates** historical sales, current orders, promotions, point-of-sale information, leading indicators, and other downstream demand signals
- **Continuously refines algorithm** and signal weighting as demand drivers change over time
- **Supports Forecast Value Add analysis** in Demand Planning to measure when planner adjustments improve or degrade forecast accuracy
- **Can improve forecast accuracy** across near-term execution and longer-range planning horizons

Connect short-term sensing with longer-range planning

Near-term and longer-range planning are often treated as separate forecasting problems. Short-term execution teams need a current demand view for replenishment, inventory positioning, and service decisions. Demand planning teams need a reliable baseline for business planning, supply alignment, consensus review, and financial visibility.

The demand sensing forecast engine bridges those needs by applying the same forecasting intelligence across different horizons. For Demand Sensing, it creates daily forecasts that reflect current market signals. For Demand Planning, it strengthens the baseline forecast used in longer-range planning and provides the foundation for measuring Forecast Value Add.

Key benefits

- **Reduces manual forecast tuning** by automating technique selection, signal analysis, and baseline forecast generation
- **Helps planners focus** on the products, lifecycle stages, and exceptions where human insight adds measurable value
- **Improves alignment** between market signals, demand plans, replenishment decisions, and supply planning inputs
- **Creates a repeatable cycle** for testing new data sources, parameters, and planning hypotheses before operationalizing them



Make planner-AI collaboration measurable

The strongest forecasting process uses AI to read patterns at scale and planners to add context where the system lacks visibility. Forecast Value Add gives Demand Planning teams a way to measure that collaboration by comparing the AI baseline, planner-adjusted consensus forecast, and actual demand.

Organizations can see where planners improve accuracy, where the engine should be trusted, and where forecast governance needs to change. This turns planner-AI collaboration into a repeatable operating model instead of an unmanaged series of manual overrides.



35% - 40%

FORECAST IMPROVEMENT
on short-term horizons



10% - 20%

FORECAST IMPROVEMENT
on long-term horizons



30% - 50%

PLANNER PRODUCTIVITY
OPPORTUNITY

identified by focusing manual
intervention where it adds
measurable value



In one long-term planning case study, the
AI-generated baseline **achieved 62% Mean
Absolute Percentage Error (MAPE)**

Build a smarter forecasting operating model

The demand sensing forecast engine helps companies create a more adaptive, measurable, and scalable forecasting process. It improves the AI-generated baseline across planning horizons, supports near-term execution through Demand Sensing, strengthens longer-range planning through Demand Planning, and helps planners focus their expertise where it creates measurable value.

Ready to improve forecast accuracy across planning horizons?

See how e2open's AI-led forecast engine can help you build a stronger baseline across every planning horizon and focus planner expertise where it adds measurable value.

Request a **demo**

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