Demand planning

4 ways to outsmart your competition

It's the same old storyline. Customers want what they want when they want it. But a growing trend toward customization, flexible delivery and return options, and increased transparency into the ethical and environmental impact of purchases means more complexity for your supply chain. Don't struggle under the strain of seemingly limitless customer demands. Upgrade your demand planning, and experience revolutionary breakthroughs in supply chain performance, planning and profitability.

Be ready to respond to anything

Improved demand planning starts with setting your strategy – recognizing who the stakeholders are, what the end goal looks like and which path you're going to take to get there.

When it comes to who's involved, the answer is both simple and complicated – everyone. Everyone inside and outside your organization who influences the supply chain has a role to play. Sales and marketing help provide forecast inputs based on projected sales, promotions and knowledge of industry trends. Executives and finance make sure you're aligning to the overall corporate strategy. Supply chain managers collaborate to overcome issues with supply, capacity (including constraints) and inventory. Suppliers, contract manufacturers, distributors and logistics providers also have direct influence on whether or not you win in terms of customer satisfaction, representing potential gating issues on the way to delivering the right product to the right person at the right time.

However, the most important players in demand planning are the end consumers. They're the ones you have to satisfy, and who will ultimately determine what your end goal looks like and the path you're going to take to get there. The goal could be providing same-day delivery or environmentally friendly products. The path will almost certainly be omni-channel. Your supply chain has to be agile enough to allow for cross-channel options. Ordering online and picking up at a brick and mortar store is just one option consumers want to have. Others include ordering online with next-day home delivery, ordering online but returning in-store, purchasing at one in-store location but returning at another and so on.

Customer demands aren't exclusive to those whose end consumer is someone shopping at the retail level. Tier one and contract manufacturers face the same challenges when providing parts or components to their business partners. In some cases, manufacturers are driven to bottom up forecasting, focusing on the raw materials.

No matter who your customer is, or what you're supplying to them, the growing number of potential combinations means your supply chain has to be ready to respond. When it comes to demand planning, you'll need to be faster, smarter and more flexible if you want to get ahead of your competition.

Time to upgrade your demand planning

Keeping up with current demand planning challenges while still using dated processes is like trying to use a cutting-edge app on an older generation smartphone. While you once may have considered that older phone cutting edge, its time has passed. It just doesn't have the capabilities required to support today's more complex and faster technology.

Isn't it time you upgraded your demand planning processes?

Current demand planning processes are slow, siloed and inefficient. It takes weeks to make critical decisions when plans don't align with reality, and when changes do happen, communication between business functions often falters, meaning you don't see the fallout to your demand plans until it's too late. Likewise, if you're the one making the change, other planning functions don't see the fallout until it's too late. It's not a great way to improve efficiency, productivity or your bottom line.

These four pointers can help you figure out how.

Technology

Forecasting

Segmentation

Collaboration
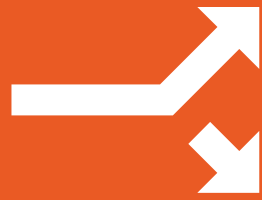
Forecasting

Stop chasing 100% accuracy

When it comes to demand planning, there's no such thing as perfect. No matter how hard you work at it or how many resources you sink into achieving it, 100% forecast accuracy just doesn't exist. Chasing perfection could actually be hindering your supply chain if it's the only thing you're focused on.

It's not that there isn't value in improving forecast accuracy. There is. But forecasting alone can't account for unanticipated supply chain risks – those game-changing events you just never see coming. Things like natural disasters, global pandemics, political shifts or tier one suppliers going dark.

Solely relying on forecast accuracy to help you avert crises is foolhardy at best and game over for your supply chain and your business at worst. You need to have the ability to plan, monitor and respond simultaneously and continuously so you're better prepared when changes arise.
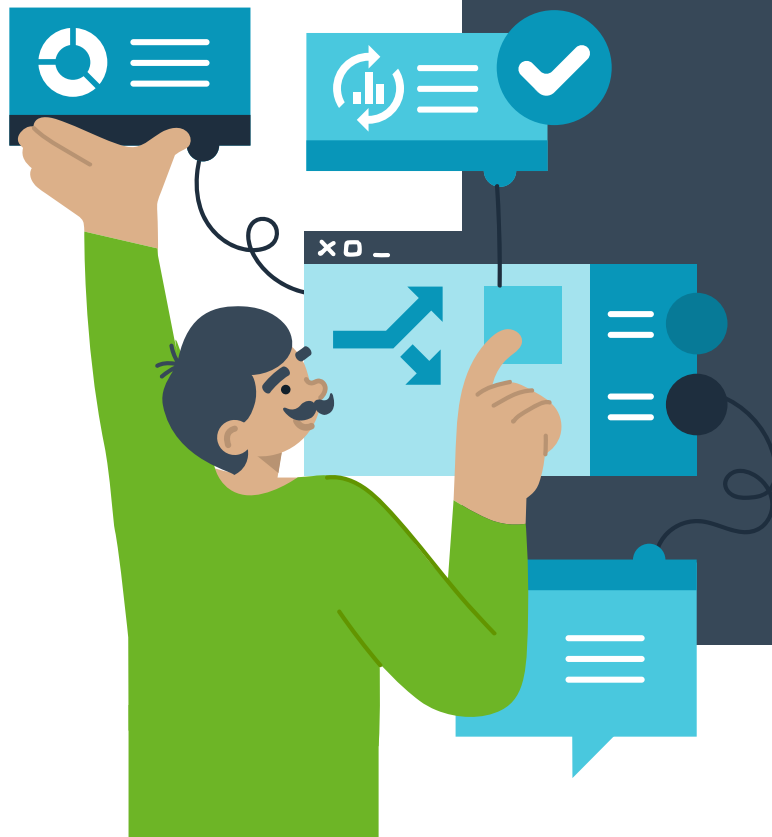
**You can better prepare for the unexpected by developing:**

End-to-end supply chain visibility: See the impact before you feel it

Robust scenario simulations: Ask "what-if" and get an immediate answer

Cross-functional collaboration: Make better decisions, faster

Concurrent planning provides those capabilities and more, with the ability to simultaneously and continuously plan, monitor and respond to supply chain changes in a harmonious environment. Concurrent planning bridges functional silos and connects all nodes in the supply chain. This enables cross-functional collaboration and faster, more effective decision-making, resulting in improved analytics accuracy, reduced planning cycles, higher profitability and quicker response times.

Exceptions aren't always fast-moving one-time events like shortages or change orders. They can be slow moving, coming to a boil over time – and being able to spot developing trends is an invaluable capability. Taking action on those trends before plans fall out of tolerance is critical and involves using a system that alerts you when you're headed in the wrong direction.

SUPPLY CHAIN

DATA
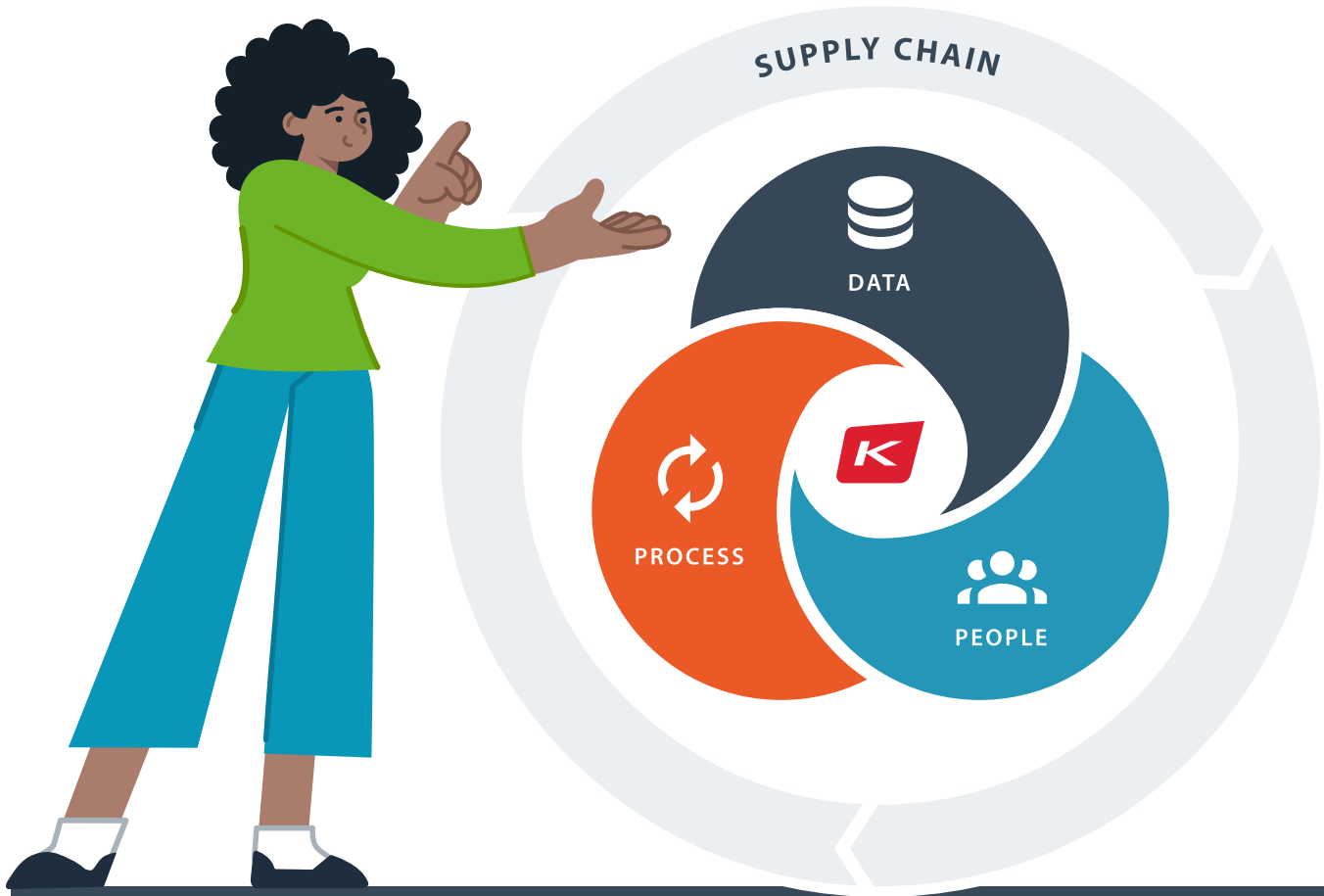
PROCESS

PEOPLE

By seamlessly connecting your entire network of data, processes and people, you can defeat the unexpected and boost your supply chain's agility across demand, inventory, supply, manufacturing constraints (across all tiers), supplier restrictions and transportation modes.

These supply chain capabilities will carry you beyond just dealing with unexpected challenges. They'll help you start working on contingency plans, including optimistic and pessimistic views of the forecast. By running multiple what-if scenarios, you'll be able to determine optimal timing on new product introductions and evaluate impacts of different end-of-life dates, making your plan more accurate.

Striking the right balance between chasing that perfect forecast accuracy and developing supply chain agility and flexibility is wholly dependent on the nature of your business. For some, like those in a make-to-stock environment, it's more a 50/50 spilt, but for organizations in highly customized, make-to-order environments, doing away with forecasts altogether is possible, albeit a little unconventional.

That's what railcar provider TrinityRail did.

Faced with the need to have available capacity meet lead-time demands on uniquely configured products with a 30-to-50-year lifecycle and a two-to-three-year backlog, the company realized the path forward was through not forecast accuracy but rather the ability to sense and respond.

> " "Rather than trying to get better at forecasting, we decided just to figure out how to live without one [a forecast]."
>
> – MIKE HEGEDUS, VICE PRESIDENT, SUPPLY CHAIN MANAGEMENT, TRINITY INDUSTRIES

By doing so, TrinityRail overcame planning processes that were manual, dispersed and time-consuming, virtually eliminating its reliance on spreadsheets and greatly reducing manual data transfer errors. The company was also able to shrink its days of inventory on-hand (DIOH) by an average of 12 days and respond to an industry recession by reducing its buyer team by more than

25% while still improving the on-time delivery (OTD) of inbound materials. For most businesses, forecast accuracy still plays a role in the supply chain. It can help you better understand demand and align it with supply and capacity constraints. But you do still need to understand its biggest limitation – it can't predict everything.

Segmentation

Categorize and prioritize customer demands

Many companies today have tens of thousands of SKUs, hundreds of suppliers and dozens of manufacturing plants and distribution centers dispersed across the globe. With the sheer number of products and distribution channels adding significant complexity, it's important to think about how to segment item forecasts so that teams are properly prioritizing the time they spend analyzing, changing and discussing their forecasts.

Supply chain segmentation helps you balance that complexity with efficiency and flexibility so you can deliver greater customer value.

When it comes to segmentation, there isn't a one-size-fits-all approach. You'll have to weigh the demands of your customer base against corporate priorities, key performance indicators (KPIs) and goals.

Segment your supply chain based on a variety of factors, including:

- Product complexity
- Manufacturing process
- Strategic importance
- Customer service needs
- Risk and resiliency
- Market demands

Segmentation lets you map what at times feels like an unlimited number of demand patterns. There are typically four main demand behaviors, which look like this:

- High value, low volatility
- Low value, low volatility
- High value, high volatility
- Low value, high volatility

Segmentation adds value in determining the best forecasting and demand planning strategies.
This feeds directly into the design of your supply chain.

The high value, low volatility items will drive you toward make-to-stock policies.

The higher volatility products will take you toward a make-to-order design and postponement strategies.
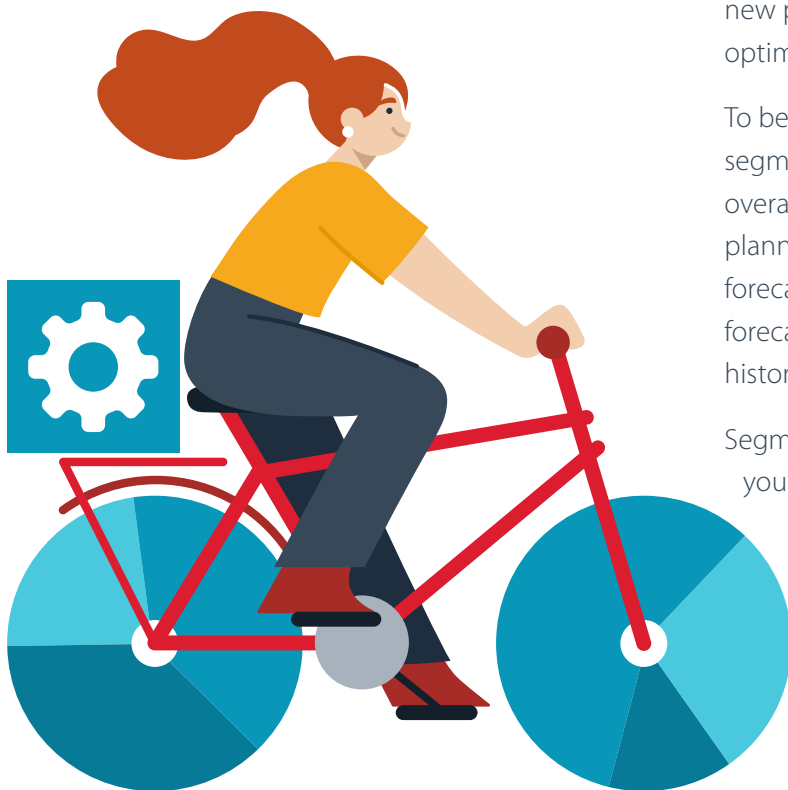
Ultimately, demand segmentation helps you better understand your customer. Segmenting your supply chain improves customer service, new product introductions and your ability to optimize mix, model and promotion planning.

To be successful, you must recognize demand segmentation as a core component of your overall business strategy and have a demand planning system that helps simplify statistical forecasting and automatically generates those forecasts based on the characteristics of your historical data.

Segmentation can't happen in a silo; otherwise you'll never be able to move beyond the near term and focus on the future. Segmentation requires input from supply chain functions as well as sales and marketing. It has the power to drive innovation across product and market – helping guide research and development (R&D) projects into a profitable reality.
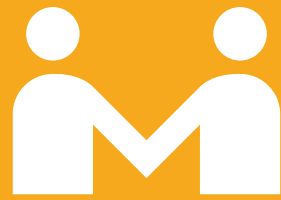
Collaboration

Break down the silos

Configuring your demand planning processes for collaboration means everyone's on the same page, on the same platform and working toward the same end goal. Unfortunately, many companies are still operating their supply chains in silos, with each department concentrating on separate goals and processes. The result is fractured functionality, instead of a seamless, responsive supply chain.

Planning in silos produces plans companies have little or no confidence in. The best demand plans include input from all stakeholders, including the people closest to the customer in sales and marketing, as well as those closest to suppliers in operations and finance. Together, these teams can balance market and customer needs against supply chain capabilities and risk. But that requires communication, collaboration and in some instances, compromise.

Without collaboration, making critical decisions takes time, which can lead to supply chain disruption and the inability to mitigate risks before it's too late to change direction. To be effective, collaboration needs to go beyond the tactical exchange of data. Key customers and suppliers must review information and contribute to the decision-making process. This means early warning notifications and working together to resolve supply chain risk issues. Companies need to bring together data, processes and people to improve supply chain flexibility and, ultimately, the profitability of the enterprise and satisfaction of the customer.

Collaboration lets you understand supply chain risks and limitations during the planning process, leading to plans that are more realistic and support common goals across the organization.

However, effective supply chain collaboration isn't an overnight accomplishment. It's an ongoing commitment that requires strong organization change management (a challenge in itself) and the creation of a working strategy that allows for adaptation and change.
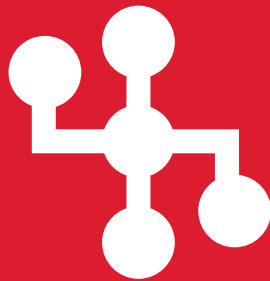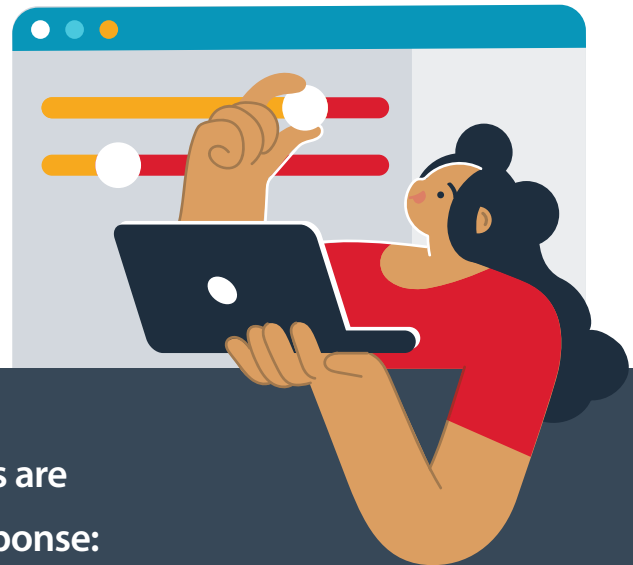
Technology

Don't wait; update

Technology has advanced by leaps and bounds over the past few decades – just look at how many iterations there are of your favorite laptop or tablet computer. Yet when it comes to supply chain management, many companies still seem to be stuck with the equivalent of slow desktop computers. Their supply chains are tied to spreadsheets, manual processes and broken-down legacy ERP systems.

It's time supply chains, and demand planning practices, upgrade to the latest tools as the notion of a digital supply chain becomes the norm, not the exception. Organizations need technology that provides better information, faster analytics and automation to keep pace.

The right technology backbone for effective demand planning requires specific capabilities, plus the ability to connect data, process and people with concurrent planning. That will enable you to know sooner when demands shift, and respond faster to ensure you're delivering on your promise to customers.

The following technological capabilities are fundamental to successful demand response:

End-to-end visibility
Agile and efficient demand response capabilities require the ability to see the flow of product upstream as it nears deliverability, and downstream to ensure product availability.

Prescriptive analytics
Running what-if simulations based on a single comprehensive data set to see potential outcomes makes it possible to direct product flow at each step of the process based on future predictions instead of current assumptions.

Cross-functional collaboration
Connectivity between each possible node on the path to the customer, and the ability to bridge multiple tiers of actions, helps create an agile and efficient response.

Automation
Efficiency gains and optimization opportunities allow supply chains to identify programmable actions that can alleviate burdens on human players.

How RapidResponse transforms demand planning

With the Kinaxis® RapidResponse® Demand Planning application, easily gather demand input from all key stakeholders – including sales, marketing, finance, operations and even your customers and suppliers. You can also pull in external digital signals like weather, holidays and economic indicators so you can stay ahead of shifting demands, no matter how fast they change.

Powerful capabilities drive impressive results

Improve short- and long-term forecast accuracy and reduce process cycle times.

Create the best demand plan through seamless collaboration across functions (sales, marketing, finance, demand planning).

Empower planners with automated machine learning to extract insights from massive datasets assembled from internal and external sources.

Maximize revenue opportunities and proactively resolve risks through tighter coordination across functions.

Incorporate events like promotions and holidays into your long-range forecast using advanced statistical forecasting.

Use demand sensing to create the best short-term forecasts for your business.

Meet customer expectations by setting consistently achievable delivery dates.

Base your order fulfillment decisions on sound financial and operational impact modeling.

Improve user adoption with explainable analytics that foster trust in machine learning-generated results.

Demand planning done differently

The way we handle demand planning within RapidResponse is different – really different. Since it's way less complicated and time-consuming thanks to the power of concurrent planning, when you see how easy it is to balance supply and demand, you'll wonder how you did it the old-fashioned way.

With RapidResponse, rebalancing your entire supply chain happens automatically in seconds – any time anyone makes a change. A demand planner drops in a new order? No problem. A supplier's going to be late with their delivery. You've got this. Fast, confident decision-making is at your fingertips.

1 Do a reality check

Check distribution and material plans to see if life's thrown any curveballs your company's way.

2 Adjust plans to reflect real life

Make any needed changes to your plans – demand, inventory, capacity, production.

3 Watch the magic of concurrent planning happen

Blink and you'll miss it! Your entire supply chain automatically rebalances in seconds, alerting you to any exceptions that need your attention.

6 Sit back, relax and wait for life's next curveball

Rest easy knowing no matter how fast or frequent things change across your supply chain, you've got the agility to respond quickly and confidently.

5 Put your plan into action

Secure signoff, push the chosen scenario live with a single click and head down the path to execution glory.

4 Weigh your options

Create any number of scenarios in real time to evaluate and compare trade-offs and options, the current plan and critical KPIs. RapidResponse combines human and machine intelligence so you can make the best demand plan possible.

Gauge performance without all the detective work

Customization is great, but some options should just come standard. Our Demand Planning application's out-of-the-box dashboards give you performance insights on day one.
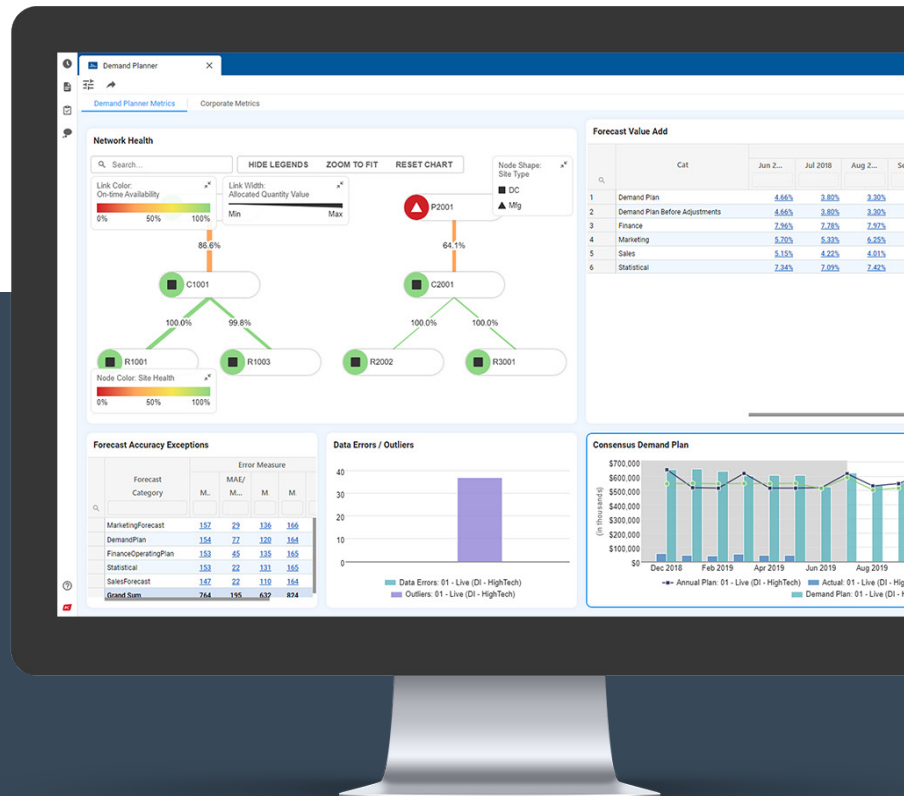
Standard measures include:

Consensus demand plan
A comparison of each forecast stream in value ($) against the demand plan and annual plan

Forecast accuracy exceptions
Summary of the number of forecast items where the measure is above the critical limit for the selected category of forecast

Forecast value add
An indication if each forecast stream is more or less accurate than the naïve forecast (the historical actuals of the previous period)

Data errors/outliers
Summary of the number of data errors or data outliers within the historical actuals that need to be cleansed through the sales data conditioning process
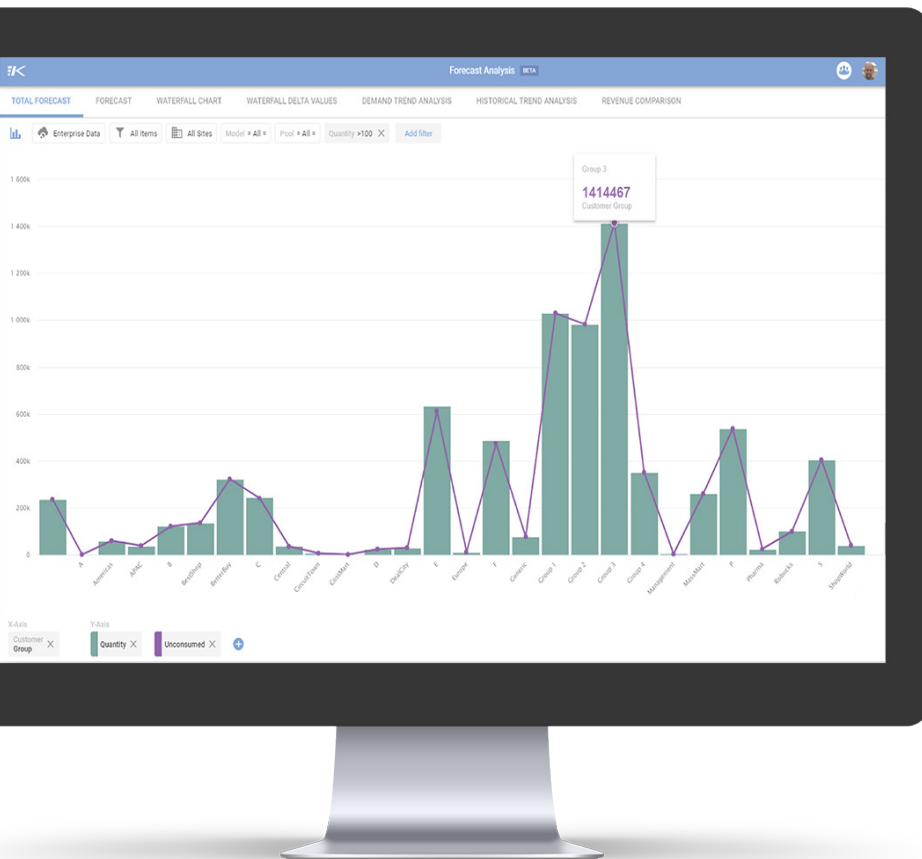
Forecast accuracy
Measure the accuracy of forecasts with any number of available methods (volume error, MAE/mean, bias/MPE, etc.)

Cross-functional supply chain visibility and faster forecasting

With our intelligent forecast model selection, you'll know the statistical model you've chosen is the right one to help drive value across your business. Plus, you can improve the accuracy of your consensus plan by defining demand planning ratios according to the time period that best aligns to the focus of each forecast stream.

> **"**
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> "RapidResponse provides much better visibility to global supply and demand across operating groups and ERP systems."
>
> **– APPLICATION MANAGER,**
> **LARGE ENTERPRISE AEROSPACE & DEFENSE COMPANY**

RapidResponse allows you to concurrently plan, monitor and respond on one platform, across business functions. With a single data model and analytics engine, we offer an array of supply chain applications all easily accessible through a common user interface. Using our single product, instead of individual disparate software solutions, you'll gain end-to-end supply visibility and the agility to respond quickly to changing conditions. The result is significant operating and cost efficiencies and the ability to outmaneuver your competition with a faster, smarter and more flexible supply chain.
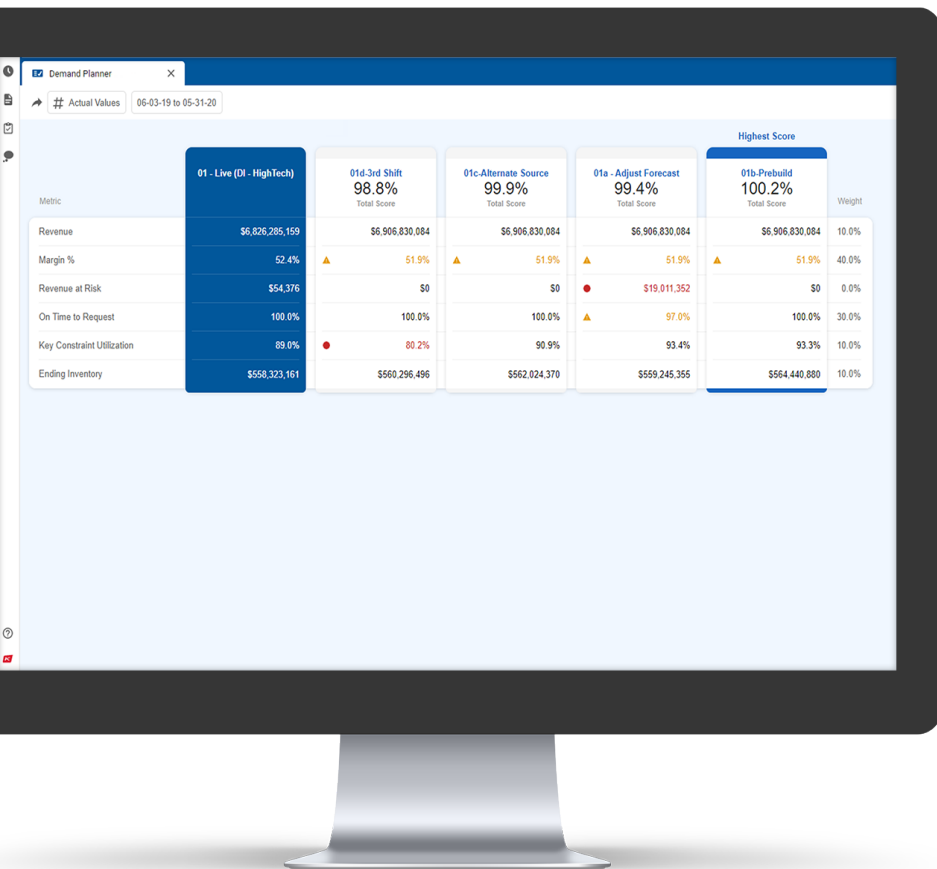
Get a detailed overview of all key metrics in your demand segmentation strategy to see issues faster and weigh them against corporate metrics.

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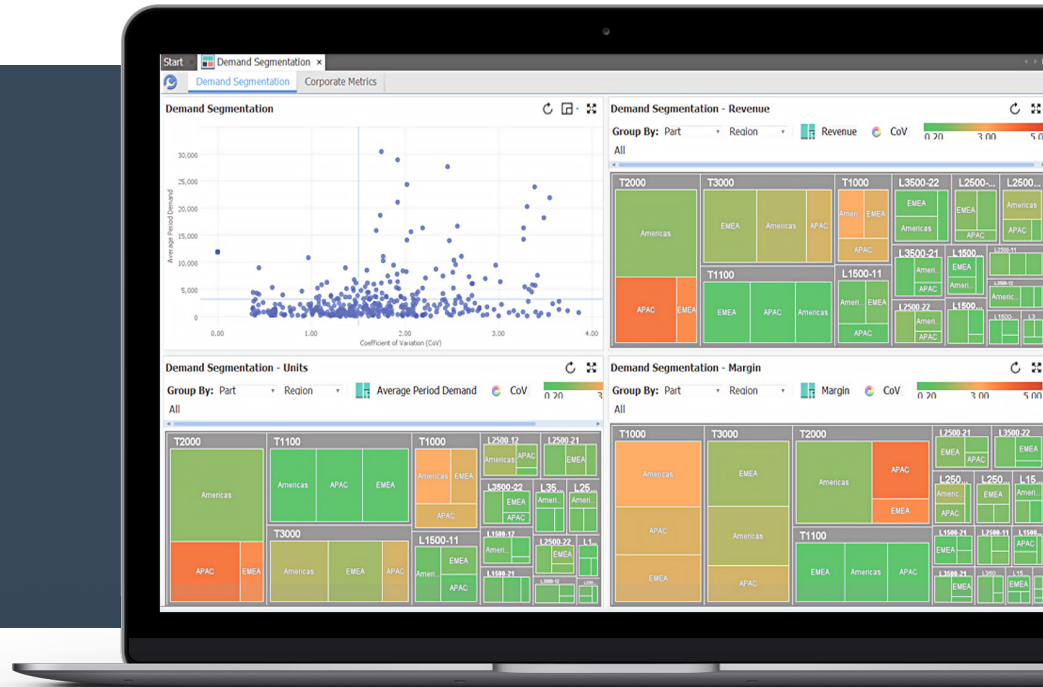
"With RapidResponse, our forecast response to the customer has improved by at least 50 percent. It has also enabled customer planning collaboration, thus improved forecast planning..."

– IT MANAGER,
LARGE ENTERPRISE ELECTRONICS COMPANY

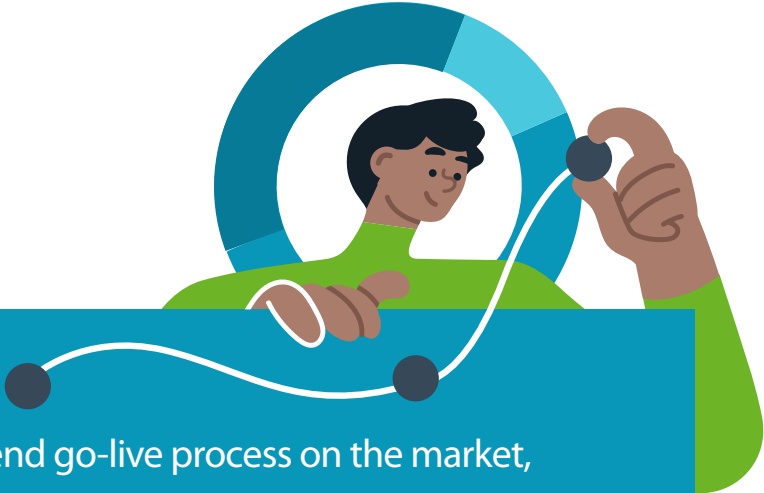| Metric	01 - Live (DI - HighTech)	01d-3rd Shift 98.8% Total Score	01c-Alternate Source 99.9% Total Score	01a - Adjust Forecast 99.4% Total Score	Highest Score 01b-Prebuild 100.2% Total Score	Weight
Revenue	$6,826,285,159	$6,906,830,084	$6,906,830,084	$6,906,830,084	$6,906,830,084	10.0%
Margin %	52.4%	⚠ 51.9%	⚠ 51.9%	⚠ 51.9%	⚠ 51.9%	40.0%
Revenue at Risk	$54,376	$0	$0	● $19,011,352	$0	0.0%
On Time to Request	100.0%	100.0%	100.0%	⚠ 97.0%	100.0%	30.0%
Key Constraint Utilization	89.0%	● 80.2%	90.9%	93.4%	93.3%	10.0%
Ending Inventory	$558,323,161	$560,296,496	$562,024,370	$559,245,355	$564,440,880	10.0%

Use the Demand Planner capability to track forecast progress on revenue goals and weight-specific metrics such as on time to request, key constraint utilization, ending inventory and more.

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"With RapidResponse, material, logistics and manufacturing operations efficiency is increased and information sharing is dramatically improved."

– ATSUSHI YAZAWA,
CHIEF INFORMATION OFFICER, CASIO COMPUTER CO., LTD.

With the fastest end-to-end go-live process on the market, Kinaxis RapidResponse can quickly and effectively provide a demand planning solution tailored to meet the specific needs of your business, no matter how complex your supply chain.

LEARN MORE

About Kinaxis Inc.

Everyday volatility and uncertainty demand quick action. Kinaxis delivers the agility to make fast, confident decisions across integrated business planning and the digital supply chain. People can plan better, live better and change the world. Trusted by innovative brands, we combine human intelligence with AI and concurrent planning to help companies plan for any future, monitor risks and opportunities and respond at the pace of change. Powered by an extensible, cloud-based platform, Kinaxis delivers industry-proven applications so everyone can know sooner, act faster and remove waste. Don't believe us? Ask us to prove it. Learn more at **Kinaxis.com**.

Here's more to discover on this topic:

- How Mars flipped its supply chain script to make customers ecstatic
- Thinking differently about supply chain planning
- Lippert Components: Creating a supply chain culture

www.kinaxis.com